A.G &S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, KRISHNA Dt. A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF ZOOLOGY

MINUTES OF BOARD OF STUDIES

B.Sc. AQUACULTURE(Industrial Fisheries)

04-07-2020

ODD SEMESTER

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.00 AM on 04-07-2020 in the Department of Zoology.

Smt.D.A. Presiding

KiranmayeeMembers

Presents

1) D. Aruna Kiranmayee Chair person — Head, Department of Zoology, A.G&S.G.S Degree College of Vuyyuru-521165.

(Smt. D.A.Kiranmayee.)

2) J. Naveen Lavanya Latha University Nominee — Krishna University, Machilipatnam.
(Dr.J.N.Lavanya Latha.) 4/7/2020

3) ..... Academic Council Nominee — Head, Dept.of Zoology, JKC College, Guntur.
(Dr.K.Daniel)

4) ..... Academic Council Nominee — Head, Dept.of Zoology, Govt.DegreeCollege, Pitapuram.
(B.Elia)

5) M. Lakshmi Priyanka Member — A.G&S.G.S Degree College Vuyyuru-521165.
(kum.M.Lakshmi Priyanka.)

6) ..... Industrialist — Asst. ProjectManager. RGCA
(B.Appala Naidu)

7) Ch. Chiranjeevi ..... Student Represent — P.hd –Research Scholar, Dept.ofBotany& Microbiology, Acharya Nagarjuna University, Guntur.
(Ch.Chiranjeevi.)

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.00 AM on 04-07-2020 in the Department of Zoology.

Smt.D.A. Kiranmayee. ... Presiding

Members Present:

1) ..... Chair person Head, Department of Zoology,
A.G&S.G.SDegreeCollege of
(Smt. D.A.Kiranmayee.) Vuyyuru-521165.

2)..... University Nominee Dr. J.N.Lavanya Latha,
(Dr.J.N.Lavanya Latha.)Krishna University,
Machilipatnam.

3)..... Academic Council Head, Department of Zoology,
(Dr. K.Daniel.) Nominee JKC College,
Guntur,

4)..... Academic Council Head, Department of Zoology,
(B.Elia.) Nominee Gov. Degree College,
Pitapuram.

5)..... Member Lecturer in Zoology,
(kum.M.Lakshmi Priyanka.) A.G&S.G.S Degree College
Vuyyuru-521165.

6)..... Industrialist Asst. Project Manager,
(B. Appala Naidu.) RGCA
Manikonda.

7)..... Student Represent P.hd –Research Scholar,
(Ch.Chiranjeevi.) Dept.ofBotany& Microbiology,
Acharya Nagarjuna University,
Guntur.

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.00 AM on 04-07-2020 in the Department of Zoology.

Smt.D.A. Kiranmayee. ... Presiding

Members Present:

1) ..... Chair person Head, Department of Zoology,
A.G&S.G.SDegreeCollege of
(Smt. D.A.Kiranmayee.) Vuyyuru-521165.

2)..... University Nominee Dr. J.N.Lavanya Latha,
(Dr.J.N.Lavanya Latha.) Krishna University,
Machilipatnam.

3)..... Academic Council Head, Department of Zoology,
(Dr. K.Daniel.) Nominee JKC College,
Guntur,

4)..... Academic Council Head, Department of Zoology,
(Dr. B.Elia.) Nominee Gov. Degree College,
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5)..... Member Lecturer in Zoology,
(kum.M.Lakshmi Priyanka.) A.G&S.G.S Degree College
Vuyyuru-521165.

6)..... Industrialist Asst. Project Manager,
(B. Appala Naidu.) RGCA
Manikonda.

7)..... Student Represent P.hd –Research Scholar,
(Ch.Chiranjeevi.) Dept.ofBotany& Microbiology,
Acharya Nagarjuna University,
Guntur.

Agenda for B.O.S Meeting.

1. To recommend the syllabi (Theory & Practical), Model question paper for I& II Semester of I
B.Sc (A.B.C) for the academic year 2020-2021.

2. To recommend the syllabi (Theory & Practical), Model question paper for III Semester of II
B.Sc (A.B.C) for the academic year 2020-2021.

3. To recommend the syllabi (Theory & Practical), Model question paper and Blue print of I&III semester of I, II B.Sc (A.B.C.) for the academic year 2020-2021.

4. To recommend the syllabi of Competitive Zoology as Unit- VI in I, III Semesters for the Academic year 2020-2021.

5. To recommend the teaching and evolution methods to be followed under Autonomous statues.

6. Any other matter.

Chairman.

RESOLUTIONS

1. It is resolved to continue the same syllabi (Theory & Practical), model question paper of I &II Semester of I B.Sc. (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

2. It is resolved to continue the newly framed syllabi (Theory & Practical), model question paper of III Semester of II B.Sc. (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

3.It is resolved to follow the Model question paper and Blue print of I&III semester of I,II B.Sc (A.B.C.) for the academic year 2020-2021.

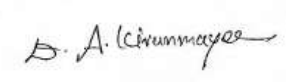
4. It is resolved to continue the following teaching & evaluation methods for the Academic year 2020-21.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of OHP and LCD projector to display on U boards etc; for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- **Internal Assessment Examination:**
- Out of maximum 100 marks in each paper for I,II B.Sc(A.B.C) 30 marks shall be allocated for internal assessment.
- Out of these 30 marks, 20 marks are allocated for announced tests (i.e . IA-1& IA-2). Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, 5 marks are allocated on the basis of candidate's percentage of attendance and remaining 5 marks are allocated for the assignment for I,II B.Sc (A.B.C).
- Semester – End Examination:
- The maximum mark for I, III (A.B.C) semester – End examination shall be 70 marks and duration of the examination shall be 3 hours. Even though the candidate is absent for two IA exams/ obtain Zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS".
- Semester – End examination shall be conducted in theory papers at the end of every semester, while in practical papers, these examinations are conducted at the end of II semester for I B.Sc. (A.B.C).



Chairman

Adusumilli Gopalakrishnaiah & Sugar Cane Growers Siddhartha Degree College Of Arts & Science, Vuyyuru-521165, Krishna Dt. ,A.P. (Autonomous).

Aquaculture

Semester – I

Class: I B.Sc .(ABC) **PAPER-I** **w.e.f. 2019-2020**

Credits : 3 **(Code: Aqu-101C)**

Title of the paper: . Basic principles of aquaculture.

60 hrs.(4hrs/week) Max.Marks : 70

Objective of the course: To introduce the basic principles of Aquaculture (Industrial fishers). Understand

the nature and basic concept of aquaculture.

Course outcomes:

1.Leam about the concept of Blue Revolution, Types of Aquaculture systems and scope of Aquaculture at

global ,India and Andhra level.

2. Understand the concepts of Ecology, and Nutrient cycles in culture ponds.

3. Acquire knowledge of different types of ponds and their functional classification.

4. Understand the important factors involved in construction of ideal fish pond.

5. Acquire knowledge of pond management factors, eradication of predators and weed control, physico-chemical Conditions to be maintained.

UNIT- I: Introduction **10hrs.**

1.1: Concept of Blue Revolution - History and definition of Aquaculture.

1.2: Scope of Aquaculture at globalLevel, India and Andhra Pradesh.

1.3: Fresh water aquaculture, brackish water aquaculture andmariculture

1.4: Different Aquaculture systems – Pond, Cage, Pen, Running water, Extensive, Intensive and & Semi- Intensive Systems and their significance. Monoculture, Polyculture and Monosex culturesystems

1.5: Aquaculture versus Agriculture; Present day needs with special reference to AndhraPradesh

UNIT-II : Pond Ecosystem **15hrs.**

2.1 General Concepts of Ecology, Carrying Capacity and Food Chains

2.2: Lotic and lentic systems, streams andsprings

2.3: Nutrient Cycles in Culture Ponds – Phosphorus, Carbon andNitrogen

2.4. Importance of Plankton and Benthos in culture ponds, nutrient dynamics and algal blooms

2.5 Concepts of Productivity, estimation and improvement o fproductivity

UNIT-III: Types of fish pods **10hr**

3.1 Classification of ponds based on water resources – spring, rain water, flood water, well water and water course ponds

3.2: Functional classification of ponds– head pond, hatchery, nursery, rearing, production, stocking andquarantine ponds 3.3: Hatcherydesign

UNIT-IV : pond preparation **15hrs.**

4.1 Important factors in the construction of an ideal fish pond – site selection, topography, nature of the soil, water resource

4.2. Lay out and arrangements of ponds in a fishfarm

4.3 . Construction of an ideal fish pond – space allocation, structure and components of barragepond

UNIT- V :**Pond management factor** **10hrs**

5.1: Need of fertilizer and manure application in culture ponds; Role of nutrients; NPKcontents of different fertilizers and manures used in aquaculture; and precautions in theirapplication.

5.2. Physico-chemical conditions of soil and water optimum for culture–temperature, depth, turbidity, light, water and shore currents, PH, DOD, CO2 and nutrients; measures to increase oxygen and reduce ammonia & hydrogen sulphide in culture ponds; correction ofPH.

5.3 Eradication of predators and weed control – advantages and disadvantages of weed, weed plants in culture ponds, aquatic weeds, weed fish, toxins used for weed control and control of predators

UNIT- VI – Competitive Aquaculture 6.1. Fish Biology,6.2. Biology of Indian major carps.

A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165, Krishna Dt. A.P. (Autonomous)

Semester – I **Model Question Paper**

w.e.f. 2019-2020

Title of the paper: **Basic principles of aquaculture .** **Code – AQU-101C**

Time: 3hrs. **Max.marks: 70**

Section – A **4 x 5= 20.**

Answer any **four** questions. Each question carries **five** marks. Draw neat labeled diagrams wherever necessary.

1.WhatisAquaculture?writethescopeofaquacultureinIndia.

2.Polyculture.

3. Write about FoodChains.

4. Flood water.

5. WriteaboutNurseryandStockingponds.

6. Site selection.

7. Draw diagram of Barrage pond and write its importance.

8.ToxinsusedforWeedcontrol.

Section – B **5 x 10 =50.**

Answer any **five** questions. Each question carries **Ten** marks. Draw neat labeled diagrams wherever necessary.

11.WritedifferenttypesofAquacultureSystems.

12. Define Mari culture and explain about it.

13.WriteaboutNutrientcyclesinculturePonds

14. Explain Concepts and improvement of productivity.

15. ExplainHatcherydesignwiththehelpofdiagrams.

16.. Writeaboutimportantfactorsintheconstructionofan idealfish Pond

17. Physico-chemical conditions of soil and water optimum for Culturepond

18. Explain advantages and disadvantages of Weeds in Culture ponds

A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165, Krishna Dt. A.P. (Autonomous)

Semester - I

Guide lines to the Paper Setter **W.e.f. 2019-2020**

Title of the paper: Basic principles of aquaculture . Code – AQU-101C

Time: 3hrs. Max. Marks: 70.

1. Answer any **four** questions out of eight in Section – A. Each question carries **five** marks. 4x5 = 20M.

2.. Answer any **five** questions out of eight in Section – B. Each question carries **Ten** marks. 5x10= 50M.

	Section	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
5 Marks Questions	**A**	**2**	**1**	**2**	**2**	**1**
10 Marks Questions	**B**	**2**	**2**	**1**	**1**	**2**
Weightage		**30**	**25**	**20**	**20**	**25**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165, KRISHNA Dt.,A.P. (AUTONOMOUS)

AQUACULTURE (Industrial Fishers)

PRACTICAL - I

w.e.f.2019-20 **2019-2020.**

Code :AQU- 101P

MAX.MARKS : 50.

(2hrs/week)

[PRACTICALS]

1.Estimation of Carbonates, Bicarbonates in watersamples.
2.Estimation of Chlorides in watersamples.
3.Estimation of dissolvedoxygen.
4.Estimation of ammonia inwater.
5.Field visit to nursery, rearing and stocking ponds of aquafarms.
6.Field visit tohatchery.
7.Study of algal blooms and theircontrol.
8.Collection & identification of zooplankton andphytoplankton.
9.Determination of soil nitrogen and phosphorus.
10. Collection and study of aquaticweeds.
11.Filed survey of nearby habitat for dietary dependency on and requirement ofaqua-products.

PRESCRIBED BOOK(S): Jhingran VG 1998. Fish and Fisheries of India. Hindusthan Publishing Corporation, New Delhi

Pillay TVR, 1996. Aquaculture Principles and Practices, Fishing News Books Ltd.,London

REFERENCES:

Pillay TVR & M.A.Dill, 1979. Advances in Aquaculture. Fishing News Books Ltd., London
1.16StickneyRR1979.PrinciplesofWarmWaterAquaculture.JohnWiley&SonsInc.1981

1.17Boyd CE 1982. Water Quality Management for Pond Fish Culture. Elsivier Scientific Publishing Company. 1.18Bose AN et.al., 1991. Costal Aquaculture Engineering. Oxford & IBH Publishing Company Pvt.Ltd.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165

EXTERNAL PRACTICAL- I

w.e.f. 2019-2020.

(Practical-1)

MODEL QUESTION PAPER –I **Code: AQU-101P**

Time: 3 hrs.
Max.marks: 25m.

I.Estimation of dissolved oxygen. 6M.
II. Study of algal blooms and theircontrol 4M.

III.: Identify, draw labeled diagram & write notes on
A, B, C, D 4X3=12M
1. Viva. 3M
TOTAL: **25M.**

Guide lines for the practical Examiners

I: Estimation of dissolvedoxygen.(5marks notes &1 mark for result.)

II : Study of algal blooms and theircontrol. (3 marks notes, labeled diagram 1 marks)

III :1Mark for identification, 1 Mark for labeled diagram & 3Mark for notes for each question.

4 specimens / slides / models.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165

INTERNAL PRACTICAL- I

(2 hrs/week).

(Practical -I)Code: AQU-101P.

MODEL QUESTION PAPER -I

Max.marks:25M.
Time: 3hrs.

1. Attendance ---------- 05M.
2. Record ----------10M.
3. Field note book. ---------- 05M
4. Assignment ---------- 05M.

Total ------ 25M.

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Aquaculture **Semester – III**

Class: II B.Sc .(ABC) **PAPER-III** **w.e.f. 2020-2021**

Credits : 3 **(Code: Aqu-301C)**

Title of the paper: Fish nutrition & Feed technology

60 hrs.(4hrs/week) **Max.Marks** : 70

UNIT-I**: Nutritional requirements of cultivable fish**

1.1 Requirements for energy, proteins, carbohydrates, lipids, fiber, micronutrients for different stages of cultivable fish and prawns

1-2 Essential amino acids and fatty acids, protein to energy ratio, nutrient interactions and protein sparing effect

1-3 Dietary sources of energy, effect of ration on growth, determination of feeding rate, check tray

1-4 factors affecting energy partitioning and feeding

UNIT-II**: Forms of feeds & Feeding methods**

2-1 Fed conversion efficiency, feed conversion ratio and protein efficiency ratio

2-2 Wet feeds, moist feeds, dry feeds, mashes, pelleted feeds, floating and sinking pellets, advantages of pelletization

2-3 Manual feeding, demand feeders, automatic feeders, surface spraying, bag feeding and tray feeding

2-4 Frequency of feeding

UNIT-III: **Feed manufacture & Storage**

3-1 Feed ingredients and their selection, nutrient composition and nutrient availability of feed ingredients

3-2 Feed formulation – extrusion processing and steam pelleting, grinding, mixing and drying, pelletization, and packing

3-3 Water stability of feeds, farm made aqua feeds, micro-coated feeds, micro-encapsulated feeds and micro- bound diets

3-4 Microbial, insect and rodent damage of feed, chemical spoilage during storage period and proper storage methods.

UNIT-IV: **Feed additives & Non-nutrient ingredients**

4-1 Binders, anti-oxidants, probiotics

4-2 Feed attractants and feed stimulants

4-3 Enzymes, hormones, growth promoters and pigments

4-4 Anti-metabolites, afflatoxins and fiber .

UNIT-V**: Nutritional Deficiency in Cultivable fish**

5-1 Protein deficiency, vitamin and mineral deficiency symptoms

5-2 Nutritional pathology and ant-nutrients

5-3 Importance of natural and supplementary feeds, balanced diet.

A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165,
Krishna Dt. A.P. (Autonomous)

Semester –III

w.e.f. 2020-2021

Title of the paper: Fish nutrition & Feed technology **Code – AQU-301C**

Time: 3hrs. **Max.marks: 70**

Section – A **4 x 5= 20.**

Answer any **four** questions. Each question carries **five** marks. Draw neat labeled diagrams wherever necessary.

1.writethe about protein to energy ratio?

2. Dry feeds.

3. Surface spraying

4. Insect and rodent damage of feed.

5. Nutrient composition

6. What is probiotics .

7. Growth pigments.

8. Vitamin deficiency symptoms.

Section – B **5 x 10 =50.**

Answer any **five** questions. Each question carries **Ten** marks. Draw neat labeled diagrams wherever necessary.

9. Write an essay on any two Nutritional Requirements for cultivable fish ?

10. Explaintheeffect of ration on growth?

11. Explain about Frequency of feeding?

12. Describe the Feed formulation?

13. Explain the Feed attractants and feed stimulants?

14. Write an essay on **Feed additive**hormones?

15. Explain about Nutritional pathology?

16. Importance of natural and supplementary feeds

A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru – 521165,
Krishna Dt. A.P. (Autonomous)
Semester - III

Guide lines to the Paper Setter.

W.e.f. 2020-2021

Title of the paper Fish nutrition & Feed technology: **Code – AQU-301C**

Time: 3hrs. **Max. Marks: 70.**

1. Answer any **four** questions out of eight in Section – A.
   Each question carries **five** marks. 4x5 = 20M.
2. Answer any **five** questions out of eight in Section – B.
   Each question carries **Ten** marks. 5x10= 50M.

	Section	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
5 Marks Questions	**A**	**1**	**2**	**2**	**2**	**1**
10 Marks Questions	**B**	**2**	**1**	**1**	**2**	**2**
Weightage		**25**	**20**	**20**	**30**	**25**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be in English medium.

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A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165, KRISHNA Dt.,A.P. (AUTONOMOUS)

AQUACULTURE

PRACTICAL - III

w.e.f. 2020-2021. **Code :AQU- 301P**

MAX.MARKS : 50.

(2hrs/week)

PRACTICAL SYLLABUS

1. Estimation of protein content in aquaculture feeds
2. Estimation of carbohydrate content in aquaculture feeds
3 Estimation of lipid content in aquaculture feeds
4. Estimation of ash in aquaculture feed
5. Study of water stability of pellet feeds
6. Feed formulation and preparation in the lab
7. Study of binders used in aquaculture feeds
8. Study of feed packing materials
9. Study of physical and chemical change during storage
10. Study on physical characteristics of floating and sinking feeds
11. Visit to a aqua-feed production unit

PRESCRIBED BOOK(S):

1.HALVER JE 1989. Fish nutrition. Academic press, San diego

REFERENCES:

1.1 Lovell rt 1998. Nutrition and feeding of fishes, Chapmann & Hall, New York
1.2 Sena de silva, trevor a anderson 1995. Fish nutrition in aquaculture. Chapmann & Hall, New York.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE,

VUYYURU-521165

EXTERNAL PRACTICAL- III

w.e.f. 2020-2021.
(2hrs/week)

MODEL QUESTION PAPER –III **Code: AQU-301P**

Time: 3 hrs. **Max.marks: 25m.**

I. Estimation of carbohydrate content in aquaculture feeds	7M.
II. Estimation of ash in aquaculture feed	5M.
III. Study of feed packing materials	5M
IV. Study of physical and chemical change during storage	5M
V. Viva.	3M
TOTAL: ----------	**25M.**

Guide lines for the practical Examiners

I: Estimation of carbohydrate content in aquaculture feeds (5 marks notes & Result 2 mark .)

II : Estimation of ash in aquaculture feed (5 marks notes)

III :Study of feed packing materials (5 marks notes)

IV. Study of physical and chemical change during storage(5 marks notes)

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE,
VUYYURU-521165

INTERNAL PRACTICAL- III

w.e.f. 2020-2021.
(2 hrs/week).

(Practical -III)Code: AQU-301P.

MODEL QUESTION PAPER -III

Max.marks:25M.
Time: 3hrs.

1.	Attendance	---------- 05M.
2.	Record	----------10M.
3.	Field trip	---------- 05M
4.	Assignment	---------- 05M.

Total ------ 25M.

A.G&S.G.SIDDHARTHADEGREECOLLEGEOFARTS&SCIENCE

VUYYURU, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

B.Sc.Aquaculture(Industrial Fisheries)

DEPARTMENT OF ZOOLOGY

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

29-03-2021

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru held at 3.00 PM on 29-03-2021 in the Department of Zoology.

Smt.D.A. Kiranmayee. ... Presiding

Members Present:

1)	(Smt. D.A.Kiranmayee)	**Chairperson**	Head, Dept.of Zoology, AG & SG S Degree College, Vuyyuru.
2)	(Dr.J.N.Lavanya Latha)	**University Nominee**	Professor, Dept. of Bio-Tech., Krishna University, Machilipatnam.
3)	(Dr. K.Daniel)	**Academic Council Nominee**	Head, Dept.of Zoology, JKC College, Guntur.
4)	(Dr.B. Elia)	**Academic Council Nominee**	Head, Dept.of Zoology, Govt. Degree College, Pitapuram.
5)	(Ms.M.Lakshmi Priyanka)	**Member**	Lecturer, Dept.of Zoology, AG & SG S Degree College, Vuyyuru.
6)	(Smt. K.Padmaja)	**Member**	Lecturer, Dept.of Zoology, AG & SG S Degree College, Vuyyuru.
7)	(B.Appala Naidu)	**Industrialist**	Asst. Project Manager, RGCA, Manikonda.
8)	(Ch.Chiranjeevi)	**Student Represent**	Ph.D, Research Scholor, Dept.of Botany & Microbiology, Acharya Nagarjuna University, Guntur

Agenda for B.O.S Meeting.

1. To recommend the syllabi (Theory & Practical), Model question paper for II Semester of I B.Sc (A.B.C) for the academic year 2020-2021.

2. To recommend the syllabi (Theory & Practical), Model question paper for IV Semester of II B.Sc (A.B.C) for the academic year 2020-2021.

3. To recommend the syllabi (Theory & Practical), Model question paper and Blue print of II &IV semester of I, II B.Sc (A.B.C.) for the academic year 2020-2021.

4. To recommend the teaching and evolution methods to be followed under Autonomous status.

5. Any other matter.

RESOLUTIONS

1. It is resolved to continue the same syllabi (Theory & Practical), model question paper of II Semester of I B.Sc. (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

2. It is resolved to follow the newly framed syllabi (Theory & Practical), model question paper of IV Semester of II B.Sc. (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

3.It is resolved to follow the Model question paper and Blue print of II & IV semester of I, II B.Sc(A.B.C.) for the academic year 2020-2021.

4.It is resolved to continue the following teaching & evaluation methods for the Academic year 2020-21.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of OHP and LCD projector to display on U boards etc; for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- **Internal Assessment Examination:**
- Out of maximum 100 marks in each paper for I, II B.Sc (A.B.C) 30 marks shall be allocated for internal assessment.
- Out of these 30 marks, 20 marks are allocated for announced tests (i.e. IA-1& IA-2). Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, 5 marks are allocated on the basis of candidate's percentage of attendance and remaining 5 marks are allocated for the assignment for I, II B.Sc (A.B.C).
- Semester – End Examination:
- The maximum mark for II, IV (A.B.C) semester – End examination shall be 70 marks and duration of the examination shall be 3 hours. Even though the candidate is absent for two IA exams/ obtain Zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS".
- Semester – End examination shall be conducted in theory papers at the end of every semester, while in practical papers, these examinations are conducted at the end of II &IV semester for I, IV B.Sc. (A.B.C).

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Aquaculture **Semester – II**

Class: I B.Sc.(ABC) **PAPER-II** **w.e.f. 2019-2020**

Credits : 3 **(Code: Aqu-201C)**

Title of the paper*:* **Biology of fin fish & shell fish**

60 hrs.(4hrs/week) Max.Marks : 70

Objective of the course: To introduce the Biology of fin fish & shell fish. General characters, Classification, growth and Development crustacean shellfish

Course outcomes:

1. Understand the characters and classification of cultivable Fin and Shell fish and commercial importance of crustaceans and Fish .
2. Gain Knowledge of feeding habits, gut content analysis and growth factors in fishes.
3. Understand and learn breeding in fishes, method of induced breeding in fishes.
4. To create awareness on parental care of Fishes and embryonic and larval development and environmental factors affecting development of major aquaculture organisms.
5. Acquire knowledge about Endocrine system in fishes.

UNIT- I: General character & Classification of Cultivable finShellfish

1.1 General Characters and classification of fishes & crustaceans up to the level of Class
1.2 Fish and Crustaceans of commercial importance
1-3 Sense organs of fishes and crustaceans .
1.4 Specialized organs in fishes – electric organ, venom andtoxins
1.5 Buoyancy in fishes- swim bladder and mechanism of gas secretion

UNIT- II: Food, Feeding and Growth

2.1 Natural fish food, feeding habits, feeding intensity, stimuli for feeding, utilization of food, gut content analysis, foorageratio
2.2 PrinciplesofAgeandgrowthdetermination;growthregulation,Growthratemeasurement– scale method, otolith method, skeletal parts as age indicators
2.3 Length-frequency method, age composition, age-length keys, absolute and specific growth, back calculation of length and growth, annual survivalrate,
2.4 Length-weightrelationship.

UNIT- III: Reproductive Biology

3.1 Breeding in fishes, breeding places, breeding habits & places, breeding in natural environment and in artificial ponds, courtship and reproductive cycles
3.2.Induced breeding in fishes
3-3 Breeding in shrimp, oysters, mussels, clams, pearl oyster, pila, and cephalopods.

UNIT- IV: Development

4.1.Parental care in fishes, ovo-viviparity, oviparity, viviparity, nest building and brooding
4.2 Embryonic and larval development of fishes
4.3 Embryonic and larval development of shrimp, crabs and molluscs of commercialimportance
4.4 Environmental factors affecting reproduction and development of cultivable aquatic fin & shell fish

UNIT- V:Hormones &Growth.

1.1 Endocrine system infishes.
1.2 Neurosecretary cells, androgenic gland, ovary,chromatophores,
1.3 Molting, molting stages, metamorphosis in crustacean shellfish

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Semester –II
Model Question Paper

w.e.f. 2019-2020
Title of the paper: Biology of fin fish & shell fish **Code – AQU-201C**
Time: 3hrs. ***Max.marks: 70***

Section – A ***4 x 5= 20.***

Answer any **four** questions. Each question carries **five** marks. Draw neat labeled diagrams wherever necessary.

1.Writethegeneralcharactersofthefishes?

2. Explaintheelectricorganinfishes?

3.writethedefinitionanddifferenttypesofnaturalfishfeeding?

4. Definethegrowthratemeasurementinfish?

5. Whatisthebreeding?writethebreedinginnaturalenvironment?

6. What is nestbuilding?

7. Explain the structure of fish ovary?

8. pearl oyster

Section – B ***5 x 10 =50.***

Answer any **five** questions. Each question carries **Ten** marks. Draw neat labeled diagrams wherever necessary.

9.Definethe“fishgutcontentanalysis”?

10.Explaintheinducedbreedinginfishesanddrawthediagram?

11. Explain about the Breeding in shrimps

12. Explain about parental care of fishes?

13. Explain the environmental factors affecting reproduction of fin fishes?

14 Explain the fish endocrinesystem?

15 Explain about Molting stages of crustaceans

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Semester - II

Guide lines to the Paper Setter. **W.e.f. 2019-2020**

Title of the paper: Biology of fin fish & shell fish. **Code – AQU-201C**

Time: 3hrs. **Max. Marks: 70.**

1. Answer any **four** questions out of eight in Section – A. Each question carries **five** marks. 4x5 = 20M.

2. Answer any **five** questions out of eight in Section – B. Each question carries **Ten** marks. 5x10= 50M.

	Section	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
5 Marks Questions	**A**	**2**	**2**	**1**	**2**	**1**
10 Marks Questions	**B**	**1**	**1**	**2**	**2**	**2**
Weightage		**20**	**20**	**25**	**30**	**25**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be in English medium.

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AQUACULTURE

PRACTICAL - II

w.e.f. 2019-2020 **.Code :AQU- 201P**

MAX.MARKS : 50.

(2hrs/week)

SYLLABUS]

1. Study of mouth parts in herbivorous and carnivorousfishes
2.Comparative study of digestive system of herbivorous and carnivorousfishes
3. Length-weight relationship offishes
4. Gut content analysis in fishes andshrimp
5. Mouth parts and appendages of cultivable prawns, shrimps and othercrustaceans
6. Study of eggs of fishes, shrimps, prawns and othercrustaceans
7. Study of oyster eggs
8. Embryonic and larval development offish
9. Study of gonadal maturity and fecundity in fishes and shellfish
10.Observation of crustaceanlarvae
11.Study of nest building and brooding offishes

PRESCRIBED BOOK(S)

Bone Q et al., 1995. Biology of fishes, Blackie academic & professional, LONDON

1.14SaxenaAB1996.LifeofCrustaceans.AnmolPublicationsPvt.Ltd.,NewDelh

REFERENCES:

Tandon KK & Johal MS 1996. Age and Growth in Indian Fresh Water Fishes. Narendra Publishing House, New Delhi.

Raymond T et al., 1990. Crustacean Sexual Biology, Columbia University Press, New York

Guiland J.A (ed) 1984. Penaeid shrimps- Their Biology and Management. 1.18Barrington FJW 1971. Invertebrates: Structure andFunction.ELBS

1.19Parker F & Haswell 1992. The text book of Zoology, VolI. Invertebrates (eds. Marshal AJ & Williams). ELBS & Mc Millan &Co.

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EXTERNAL PRACTICAL- II

MODEL QUESTION PAPER –II **Code: AQU-201P**

Time: 3 hrs. **Max.marks: 25m.**

I.Length-Weight relationship of fishes	5M.
II. Gut content analysis in fishes	5M.
III.Draw labeled diagram appendages of cultivable prawns.	2M
IV. Identify, draw labeled diagram & write notes on	
A, B, C, D	4X2=10M
V. Viva.	3M
TOTAL: ----------	25M.

Guide lines for the practical Examiners

I:Length-Weight relationship of fishes(4marks notes &1 mark calculation .)

II :Gut content analysis in fishes (5 marks notes)

III :1Mark for identification, 1 Mark for labeled diagram .

IV. ½ Mark for identification, ½Mark for labeled diagram &1Mark for notes for each question.

4 specimens / slides / models.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165

INTERNAL PRACTICAL- II

Code: AQU-201P.

MODEL QUESTION PAPER -II

Max.marks:25M.
Time: 3hrs.

1. Attendance ---------- 05M.
2. Record ----------10M.
3. Collection of nests pictures ---------- 05M
4. Assignment ---------- 05M.

Total ------ 25M.

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Aquaculture **Semester – IV**

Class: II B.Sc .(ABC) PAPER-IV w.e.f. 2020-2021

Credits : 3 (Code: Aqu-301C)

Title of the paper: **Fish nutrition & Feed technology**

60 hrs.(4hrs/week) Max.Marks : 70

UNIT-I**: Nutritional requirements of cultivable fish**

1.1 Requirements for energy, proteins, carbohydrates, lipids, fiber, micronutrients for different stages of cultivable fish and prawns

1-2 Essential amino acids and fatty acids, protein to energy ratio, nutrient interactions and protein sparing effect

1-3 Dietary sources of energy, effect of ration on growth, determination of feeding rate, check tray

1-4 factors affecting energy partitioning and feeding

UNIT-II**: Forms of feeds & Feeding methods**

2-1 Fed conversion efficiency, feed conversion ratio and protein efficiency ratio

2-2 Wet feeds, moist feeds, dry feeds, mashes, pelleted feeds, floating and sinking pellets, advantages of pelletization

2-3 Manual feeding, demand feeders, automatic feeders, surface spraying, bag feeding and tray feeding

2-4 Frequency of feeding

UNIT-III: **Feed manufacture & Storage**

3-1 Feed ingredients and their selection, nutrient composition and nutrient availability of feed ingredients

3-2 Feed formulation – extrusion processing and steam pelleting, grinding, mixing and drying, pelletization, and packing

3-3 Water stability of feeds, farm made aqua feeds, micro-coated feeds, micro-encapsulated feeds and micro- bound diets

3-4 Microbial, insect and rodent damage of feed, chemical spoilage during storage period and proper storage methods.

UNIT-IV: **Feed additives & Non-nutrient ingredients**

4-1 Binders, anti-oxidants, probiotics

4-2 Feed attractants and feed stimulants

4-3 Enzymes, hormones, growth promoters and pigments

4-4 Anti-metabolites, afflatoxins and fiber .

UNIT-V**: Nutritional Deficiency in Cultivable fish**

5-1 Protein deficiency, vitamin and mineral deficiency symptoms

5-2 Nutritional pathology and ant-nutrients

5-3 Importance of natural and supplementary feeds, balanced diet.

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Semester –IV
w.e.f. 2020-2021
Title of the paper: Fish nutrition & Feed technology **Code – AQU-301C**
Time: 3hrs. **Max.marks: 70**

Section – A **4 x 5= 20.**

Answer any **four** questions. Each question carries **five** marks. Draw neat labeled diagrams wherever necessary.

1.writethe about protein to energy ratio?

2. Dry feeds.

3. Surface spraying

4. Insect and rodent damage of feed.

5. Nutrient composition

6. What is probiotics .

7. Growth pigments.

8. Vitamin deficiency symptoms.

Section – B **5 x 10 =50.**

Answer any **five** questions. Each question carries **Ten** marks. Draw neat labeled diagrams wherever necessary.

9. Write an essay on any two Nutritional Requirements for cultivable fish ?

10. Explaintheeffect of ration on growth?

11. Explain about Frequency of feeding?

12. Describe the Feed formulation?

13. Explain the Feed attractants and feed stimulants?

14. Write an essay on Feed additive hormones?

15. Explain about Nutritional pathology?

16. Importance of natural and supplementary feeds

A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru – 521165,
Krishna Dt. A.P. (Autonomous)
Semester -IV

Guide lines to the Paper Setter

Title of the paper Fish nutrition & Feed technology **Code – AQU-301C**

Time: 3hrs. **Max. Marks: 70**

1. Answer any **four** questions out of eight in Section – A. Each question carries **five** marks. 4x5 = 20M.

2. Answer any **five** questions out of eight in Section – B. Each question carries **Ten** marks. 5x10= 50M.

	Section	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
5 Marks Questions	**A**	**1**	**2**	**2**	**2**	**1**
10 Marks Questions	**B**	**2**	**1**	**1**	**2**	**2**
Weightage		**25**	**20**	**20**	**30**	**25**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be in English medium.

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AQUACULTURE

PRACTICAL - IV

w.e.f. 2020-2021. **Code :AQU- 401P**

MAX.MARKS : 50.

(2hrs/week)

PRACTICAL SYLLABUS

1. Estimation of protein content in aquaculture feeds
2. Estimation of carbohydrate content in aquaculture feeds
3 Estimation of lipid content in aquaculture feeds
4. Estimation of ash in aquaculture feed
5. Study of water stability of pellet feeds
6. Feed formulation and preparation in the lab
7. Study of binders used in aquaculture feeds
8. Study of feed packing materials
9. Study of physical and chemical change during storage
10. Study on physical characteristics of floating and sinking feeds
11. Visit to a aqua-feed production unit

PRESCRIBED BOOK(S):

1.HALVER JE 1989. Fish nutrition. Academic press, San diego

REFERENCES:

1.1 Lovell rt 1998. Nutrition and feeding of fishes, Chapmann & Hall, New York
1.2 Sena de silva, trevor a anderson 1995. Fish nutrition in aquaculture. Chapmann & Hall, New York.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE,

VUYYURU-521165

EXTERNAL PRACTICAL- IV

w.e.f. 2020-2021.

MODEL QUESTION PAPER –IV **Code: AQU- 401P**

Time: 3 hrs.
Max.marks: 25m.

I. Estimation of carbohydrate content in aquaculture feeds	7M.
II. Estimation of ash in aquaculture feed	5M
. III. Study of feed packing materials	5M
IV. Study of physical and chemical change during storage	5M
V. Viva	3M
TOTAL: ----------	25M.

Guide lines for the practical Examiners

I: Estimation of carbohydrate content in aquaculture feeds (5 marks notes & Result 2 mark)

II : Estimation of ash in aquaculture feed (5 marks notes)

III :Study of feed packing materials (5 marks notes)

IV. Study of physical and chemical change during storage(5 marks notes)

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VUYYURU-521165

INTERNAL PRACTICAL- IV

w.e.f. 2020-2021.
(2 hrs/week).

(Practical -III)Code: AQU-401P.
MODEL QUESTION PAPER -IV

Max.marks:25M.

Time: 3hrs.

1.	Attendance	---------- 05M.
2.	Record	----------10M.
3.	Field trip	---------- 05M
4.	Assignment	---------- 05M.

Total ------ 25M.

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF BOTANY

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

16-07-2020

Minutes of the meeting of Board of studies in Botany for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10:30 A.M on 16-07—2020 through Online.

Members Present:-

1)	CH. Beulah Ranjani (CH. Beulah Ranjani)	**Chairman**	Head, Department of Botany, A.G & S.G.S Degree College of Arts & Science (Autonomous), Vuyyuru.
2)	..... (Dr. G.Ramesh)	**University Nominee**	Head, Department of Botany, K.B.N.College, Vijayawada.
3)	 (Dr.A.Srinivasa Rao)	**Academic Council Nominee**	Lecturer in Botany, Govt.Degree College Mandapeta, East Godavari.
4)	..... (N.Manimala)	**Academic Council Nominee**	Head, Department of Botany, Govt.Degree College, Chintalapudi.
5)	..... (S.Krishna Suman)	**Industrialist**	Natural Farming, Yakamuru, Vuyyuru, Krishna Dt.
6)	N. Ramana Rao (N.Ramana Rao)	**Member**	Adhoc Lecturer in Botany, A.G & S.G.S Degree College of Arts & Science (Autonomous), Vuyyuru.
7)	E. Ganesh (E.Ganesh)	**Member**	Adhoc Lecturer in Botany, A.G & S.G.S Degree College of Arts & Science (Autonomous), Vuyyuru.
8)	K. Anusha (K.Anusha)	**Student Representative**	Lecturer, Chaitanya College, Vuyyuru.

Agenda for B.O.S Meeting.

1. To recommend the syllabi (Theory & Practical), Model question paper for I Semester of I B.Sc (B.Z.C), (A.B.C) for the academic year 2020 - 2021.

2. To recommend the syllabi (Theory & Practical), Model question paper for III Semester of II B.Sc (B.Z.C), (A.B.C) for the academic year 2020 - 2021.

3. To recommend the syllabi (Theory & Practical), Model question paper for V Semester of III B.Sc (B.Z.C), (A.B.C) for the academic year 2020 - 2021.

4. To recommend the syllabi (Theory & Practical), Model question paper and Blue print of I, III & V semester of I, II & III B.Sc (B.Z.C), (A.B.C.) for the academic year 2020 - 2021.

5. To recommend the syllabi of Competitive Botany as Unit- VI in I, III Semesters for the Academic year 2020 - 2021.

6. To recommend the teaching and evolution methods to be followed under Autonomous statues.

7. Any other matter.

C. B. Ranjini
Chairman.

RESOLUTIONS

1. It is resolved to continue changed syllabi (Theory & Practical), model question paper of I Semester of I B.Sc (B.Z.C), (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

2. It is resolved to continue the same syllabi (Theory & Practical), model question paper of III Semester of II B.Sc (B.Z.C), (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

3. It is resolved to continue the same syllabi (Theory & Practical), model question paper of V Semester of III B.Sc (B.Z.C), (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

4. It is resolved to follow the Model question paper and Blue print of I, III & V semester of I, II & III B.Sc (B.Z.C), (A.B.C.) for the academic year 2020-2021.

5. It is resolved to follow the syllabus of Competitive Botany as Unit- VI in I, III Semesters for the Academic year 2020-2021.Questions from the VI-Unit will be given in IA-1, IA-II but not in semester end exams.

6. It is resolved to continue the following teaching & evolution methods for the Academic year 2020 - 2021.

7. Any other matter.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of OHP and LCD projector to display on U boards etc; for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- **Internal Assessment Examination:**
- Out of maximum 100 marks in each paper for I, II & III B.Sc (B.Z.C), (A.B.C) 30 marks shall be allocated for internal assessment.
- Out of these 30 marks, 20 marks are allocated for announced tests (i.e . IA-1& IA-2). Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, 5 marks are allocated on the basis of candidate's percentage of attendance and remaining 5 marks are allocated for the assignment for I, II & III B.Sc (B.Z.C), (A.B.C).

- **Semester – End Examination:**
- The maximum mark for I, III, V Bsc (B.Z.C), (A.B.C) semester – End examination shall be 70 marks and duration of the examination shall be 3 hours. Even though the candidate is absent for two IA exams/ obtain Zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS".
- Semester – End examination shall be conducted in theory papers at the end of every semester, while in practical papers, these examinations are conducted at the end of I, III & V semester for I, II & III B.Sc (B.Z.C), (A.B.C).

- Discussed and recommended for organizing Seminars, Guest lectures, Work – Shops to upgrade the Knowledge of students, for the approval of the Academic Council.

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A.G & S.G. Siddhartha Degree College of Arts & Science

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BOTANY	BOT - 101C	w.e.f. 2020-21	B. Sc. (BZC)

SEMESTER - I **Fundamentals of Microbes and Non-vascular Plants** **PAPER – I**

(Viruses, Bacteria, Fungi, Lichens, Algae and Bryophytes)

Unit – 1: Origin of life and Viruses **12Hrs.**

1. Origin of life, five kingdom classification of R.H. Whittaker
2. Discovery of microorganisms, Pasteur experiments, germ theory of diseases.
3. Shape and symmetry of viruses; structure of TMV and multiplication of TMV; A brief account of Prions and Viroids.
4. A general account on symptoms of plant diseases caused by Viruses. Transmission of plant viruses and their control.

Unit – 2: Special groups of Bacteria and Eubacteria **12Hrs.**

1. Brief account of Archaebacteria, Actinomycetes and Cyanobacteria.
2. Cell structure and nutritionof Eubacteria.
3. Reproduction- Asexual (Binary fission and endospores) and bacterial recombination (Conjugation, Transformation, Transduction).
4. Economic importance of Bacteria with reference to their role in Agriculture and industry (fermentation and medicine).
5. A general account on symptoms of plant diseases caused by Bacteria; Citrus canker.

Unit – 3: Fungi & Lichens **12 Hrs.**

1. General characteristics of fungi and Ainsworth classification (upto classes).
2. Structure, reproductionand life history of (a)*Rhizopus* (Zygomycota) and (b)*Puccinia* (Basidiomycota).
3. Economic uses of fungi in food industry, pharmacy and agriculture.
4. A general account on symptoms of plant diseases caused by Fungi; Blast of Rice.
5. Lichens- structure and reproduction; ecological and economic importance.

Unit – 4: Algae **12 Hrs.**

1. General characteristics of Algae (pigments, flagella and reserve food material); Fritsch classification. (upto classes).
2. Thallus organization and life cycles in Algae.
3. Occurrence, structure, reproduction and life cycle of (a) *Spirogyra* (Chlorophyceae) and (b) Oedogonoum (chlorophyceae) .
4. Economic importance of Algae.

Unit – 5: Bryophytes **12 Hrs.**

1. General characteristics of Bryophytes; classification upto classes.
2. Occurrence, morphology, anatomy, reproduction (developmental details are not needed) and life cycle of (a) *Marchantia* (Hepaticopsida) and (b) *Funaria* (Bryopsida).
3. General account on evolution of sporophytes in Bryophyta.

BOTANY	BOT-301C	w.e.f. 2020-21	B. Sc. (BZC)

II B. Sc - BOTANY

SEMESTER - III PAPER – III

Plant Taxonomy and Plant Physiology

Hours: 60 @ 4 hrs per week **Credits: 3**

UNIT – I: Introduction to Plant Taxonomy **(12 hrs)**

1. Fundamental components of taxonomy (identification, nomenclature, classification types and phylogeny)
2. Salient features of Bentham & Hooker classification.
3. Role of chemotaxonomy, cytotaxonomy and Embryology in relation to Taxonomy.
4. APG IV System of Classification – 2016.

UNIT –II: Systematic Taxonomy **(12 hrs)**

1. Nomenclature and Taxonomic resources: An introduction to International Code of Botanical Nomenclature; Principles, Rules and Recommendations.
2. Systematic study and economic importance of plants belonging to the following families: Annonaceae, Capparidaceae, Rutaceae, Cucurbitaceae and Apiaceae

UNIT –III: Systematic Taxonomy **(12 hrs)**

1. Systematic study and economic importance of plants belonging to the following families: Asteraceae, Asclepiadaceae, Lamiaceae, Euphorbiaceae, Orchidaceae and Poaceae.

Plant Physiology

UNIT – IV: Plant – Water relations **(12 hrs)**

1. Importance of water to plant life, physical properties of water,
2. Diffusion, Imbibition and osmosis; water potential, osmotic potential and pressure potential.
3. Absorption, transport of water, ascent of sap.
4. Transpiration – types, stomata structure, movements and significance.

UNIT –V: Mineral nutrition, Fertilizers and Enzymes **(12 hrs)**

1. Mineral Nutrition**:** Essential macro and micro mineral nutrients and their role, mineral uptake (active and passive), deficiency symptoms.
2. Nitrogen cycle- biological nitrogen fixation.
3. Enzymes**:** Nomenclature, characteristics, mechanism and regulation of enzyme action, enzyme kinetics, factors regulating enzyme action.

UNIT –VI (Competitive Syllabus)

1. Definitions of Growth and Classification Based on Growth Habits.
2. Fruitarianism – Introduction, Varieties, Nutrition and Nutritional effects Vitamin B12
3. Biological Nitrogen Fixation.

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BOTANY	BOT- 301C	w.e.f. 2020-21	B. Sc. (BZC)

II B. Sc – BOTANY **Model Question Paper** **SEMESTER- III**

PAPER-III: **Plant Taxonomy and Plant Physiology**

Time: 3 Hours **Max. Marks: 70**

SECTION-A

Answer any **four** of the following questions. **4x5 = 20Marks**

(Draw diagrams wherever necessary)

1. Binomial nomenclature.
2. Cytotaxonomy.
3. Fruit in Rutaceae.
4. Pollination mechanism in Lamiaceae.
5. Water potential.
6. Types of Transpiration.
7. Imbibition.
8. Nitrogen.

SECTION-B

Answer any **five** of the following questions. **5x10 = 50Marks**

(Draw diagrams wherever necessary)

9. Explain in brief Bentham & Hookers system of classification. Discuss the merits and demerits of the system.
10. Describe vegetative and floral characters of the family Cucurbitaceae.
11. Write an essay on ICBN.
12. Describe vegetative & floral characters of Asclepiadaceae.
13. Describe floral characters and economic importance of Euphorbiaceae.
14. Write an essay on Ascent of sap.
15. Write an essay on the absorption of mineral ions.
16. Explain the enzyme action and add a note on the factors that effect enzyme activity.

Guide lines for paper setter: (for Paper III – BOT- 301) w.e.f 2020-21

1. In **section A**: Unit II, III & V must carry **one** question from each Unit, Unit I must carry

two questions and Unit IV must carry **three** questions.

2. In **section- B**: Set minimum **two** questions from Unit II, III & V. **One** question each from Unit I and Unit IV.
3. See the following table and Model paper for marks distribution.
4. Please provide the scheme of valuation for the paper.
5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	2		1		
		10		10	20
Unit - II	1		2		
		05		20	25
Unit – III	1		2		
		05		20	25
Unit – IV	3		1		
		15		10	25
Unit – V	1		2		
		05		20	25
Max. Q & marks	8	(x 5) = 40	8	(x 10) = 80	(Total questions =16) Total marks = 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4 (4 X 5M) = 20 M		5 (5 X 10M)= 50 M		70M

INTERNAL EXAMS - 30Marks

(**20** marks for unit tests, **5** marks for seminar and remaining **5** marks for attendance).

PAPER-III **SEMESTER-III** **(BOT- 301P)**

Practical – III: **Plant Taxonomy and Plant Physiology**

Total hours of laboratory Exercises 45 hrs @ 3 per week

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Suggested Laboratory Exercises:

1. Systematic study of locally available plants belonging to the families prescribed in theory Syllabus.
2. Demonstration of herbarium techniques.
3. Osmosis – by potato osmoscope method.
4. Determination of osmotic potential of vacuolar sap by plasmolytic method using leaves of Rhoeo / Tradescantia.
5. Determination of rate of transpiration using cobalt chloride method.
6. Demonstration of transpiration by Ganong's potometer.
7. Demonstration of ascent of sap / Transpiration pull.
8. Study of mineral deficiency symptoms using plant material/photographs.
11. Field visits.
12. Preparation and submission of 25 herbarium specimens for evaluation during the practical Examination.

. **Plant Taxonomy and Plant Physiology**

Time: 3 Hrs Max. Marks: 50

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1. Describe specimen 'A' in technical terms. Draw neat labelled diagrams of twig with inflorescence, L.S of flower, T.S. of ovary, floral diagram and write the floral formula. 11M

2. Assign the Specimen 'B' to its family giving reasons. 3M

3. Write the salient features of experiment 'C' with the help of neat labelled diagram. 05M

4. Identify D &E. 03M

5. Herbarium. 03M

Total 25M

Internal :
(Attendance – 5 M + Record -10M + Field trip diary – 5M + Viva – 2M+Assignment-3M)

Total -----50M

Scheme of valuation

Time: 3 Hrs. **External Marks: 25**

1. Material 'A' - A twig with large sized flowers. (From the families mentioned in practical syllabus) Description of veg. parts = 2 M; Description of floral parts = 4 M; One mark each for the diagrams of Twig with flower, L.S. of flower, T.S of ovary, Floral diagram and Floral formula. = 11 M
2. Material 'B' – (Family name - 1, Identification with reasons - 2) = 03M
3. Material 'C' –Physiology –minor experiment (Salient features 3, Diagram 2M) = 05M
4. 'D' & 'E'(2 Herbarium sheets from students collection) = 03M
5. Herbarium. = 03 M

[for each one, Botanical name - 1, Family – ½]

Internal :
(Attendance – 5 M + Record -10M + Field trip diary – 5M + Viva – 2M+Assignment-3M)

An Autonomous College in the Jurisdiction of Krishna University

BOTANY	BOT-501C	2020-2021	B.Sc. (BZC)

PAPER – V Cell Biology, Genetics and Plant Breeding SEMESTER-V (2020-2021)
Total Hours of teaching 60 hrs @ 6 hrs for Week Credits: 03

UNIT-I Cell Biology **(12 hrs)**

1. Cell, Ultra Structure and functions of cell wall.
2. Molecular Organization of cell membranes.
3. Chromosomes; morphology, organization of DNA in a chromosome (Nucleosome model)Euchromatin and Heterochromatin.

UNIT-II Genetic Material **(12 hrs)**

1. DNA as the Genetic Material: Griffith's and Avery's Transformation Experiment. Hershey - Chase Bacteriophage experiment.
2. DNA Structure (Watson & crick model) and replication of DNA (Semi Conservative).
3. Types of RNA (mRNA, tRNA, rRNA), their structure and function.

UNIT-III Mendelian Inheritance **(12 hrs)**

1. Mendelian Inheritance (Mono – Di-hybrid Crosses), Back cross and Text cross.
2. Linkage: concept, complete and In-complete Linkage, Coupling and Repulsion; Linkage Maps Based on Two and Three Point cross.
3. Crossing over concept and significance.

UNIT-IV Gene Expression **(12 hrs)**

1. Organization of gene, Transcription and Translation.
2. Mechanism and regulation of Gene Expression in Prokaryotes (Lac operon).
3. Mutations: Chromosomal Aberrations, Gene Mutations and Transposable Elements.

UNIT-V Plant Breeding **(12 hrs)**

1. Introduction and objectives of Plant Breeding.
2. Methods of Crop Improvement: Procedure, Advantages and limitations of Introduction, Selection and Hybridization (Out lines only).

B.Sc – BOTANY
SEMESTER -V. THEORY MODEL PAPER

Time: 3 Hours **Max. Marks: 70**

SECTION-A

Answer any four of the following question **4x5=20M.**
(Draw diagrams wherever necessary)

1. Nucleosome
2. Griffith experiment.
3. t RNA
4. Back cross and test cross.
5. Transcription.
6. Three point test cross.
7. Hybridization.
8. Crossing over.

SECTION-B

Answer all of the following questions. **5x10= 50M.**
(Draw diagrams wherever necessary)

9. Describe the Ultra structure and functions of cell membrane.
10. What is cell theory? Write about eukaryotic cell components.
11. Write about structure and replication of DNA.
12. DNA as a genetic material proof with suitable experiments.
13. Explain the Mendel's law of inheritance.
14. Define linkage. Describe the different types of Linkage.
15. Write an essay on mechanism and Regulation of gene Expression in Prokaryotes.
16. Discuss about methods of Crop improvement.

Guide lines for paper setter: (for Paper V-BOT-501) W.e.f. 2020-21

1. In Section A: Unit I, III, V must carry one question from each unit. Unit II must carry 2 questions and Unit IV must carry three questions.

2. In section-B: Set minimum Two questions from Unit I, II & III

3. See the following table and Model paper.

4. Please provide the scheme of valuation for the paper.

5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	1		2		
		5	20		25
Unit – II	2		2		
		10	20		30
Unit –III	1		2		
		5		20	25
Unit-IV	3		1		
		15		10	25
Unit-V	1		1		
		5		10	15
Max .Q & marks	8	(x 5) =40	8	(x 10) = 80	(Total questions =16) Marks 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
		(4 x 5) = 20		(5 x 10) = 50	70

INTERNAL EXAMS – 30 Marks
(20 marks for unit tests, **5** marks for Attendance **5** marks for seminars)

III B.SC-BOTANY Practical paper

Cell Biology, Genetics and Plant Breeding

SEMESTER-V **BOT-501-P**

Time :3hr Total hours of teaching 30hrs @ 2 hrs per week **Max.marks:50**

1. Study of the structure of cell organelles through photomicrographs.
2. Study of plant cell through temporary mounts.
3. Study of various stages of mitosis using cytological preparation of Onion root tips.
4. Study of DNA packing by micrographs.
5. Numerical problems solving Mendal's Laws of inheritance.
6. Chromosome mapping using 3 point test cross data.
7. Hybridization techniques –emasculation. Bagging (for demonstration only).
8. Field visit to a plant breeding research station.

III B.SC-SEMESTER-V, BOTANY PRACTICAL MODELPAPER

PAPER –V: CELL BIOLOGY GENETICS AND PLANT BREEDING

1. Perform the Experiment A Squash technique.....13M
2. Give the experimental protocol of the experiments. B.....04M
3. Solving numerical problems on Mendelian in heritance....C, D.....2x7 = 14M
4. Record.....05M

Viva.....04M

Internal Practical Exam.....10M

III B.SC-BOTANY Syllabus SEMESTER-V

Practical paper – V: Cell Biology, Genetics and Plant Breeding

Total hours of teaching 30hrs @ 2 hrs per week

1. Perform the Experiment A.

   Squash technique ……..5M

   Procedure……..……5M

   diagram ……3M = 13

2. Give the experimental protocol of the experiments. B……...4M

3. Genetic problem C, D

   Salvation of problem…….5 M

   Reasoning……..2 M

   2X7 = 14M

   Viva ……4M

Internal:

a) Record…….5M.

b)Internal Practical Exam……...10M

Books for Reference:

1. Old, R.W. and Primrose S.B. 1994, Principles of Gene Manipulation Blackwell Science,19 London 2. Grierson, D. and Convey S.N. 1989, Plant Molecular Biology, Blackie Publishers, NewYork.

2. Lea, P.J. and Leegood R.C. 1999, Plant Biochemistry and Molecular Biology, John Wiley and Sons, London.

3. Power C.B., 1984, Cell Biology, Himalaya Publishing Co. Mumbai

4. De. Robertis and De Robertis, 1998, Cell and Moleceular Biology, K.M. Verghese andCompany .

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BOTANY	BOT-502	2020-2021	B.Sc. (BZC)

SEMESTER-V (2020-2021) **PAPER – VI**

PLANT ECOLOGY & PHYTOGEOGRAPHY Credits-03

Total Hours of teaching 60 hrs @ 6 hrs for Week

UNIT-I.ELEMENTS OF ECOLOGY **(12 hrs)**

1. Ecology: Definition, branches and significance of ecology.

2. Claimatic factors: Light, Temperature.

3. Edaphic factor: Origin, formation, composition and soil profile.

4. Biotic factor, Ecological adaptations of Plants.

Unit– II. Ecosystem Ecology **(12 hrs)**

1. Ecosystem: concept and components, energy flow, food chain, food web, Ecological Pyramids.
2. Productivity of ecosystem-Primary, Secondary and Net productivity.
3. Biogeochemical cycles- Carbon, Nitrogen and Phosphorous.

Unit –III Population & Community ecology. **(12 hrs)**

1. Population-defination, characteristics and importance (Density,Natality, Mortality, Growth Curves) outlines-ecotypes.
2. Plant communities- characters of a community, outlines – Frequency, density, cover, life forms, Biological Spectrum.
3. Ecological Succession: Hydrosere and Xerosere

Unit-IV Phytogeography **(12 hrs)**

1. Principles of Phytogeography, Distribution (Wides, Endemic, Discontinous species.

2. Phytogeographic regions of India.

3. Endemism – types and Causes.

Unit-V Plant Biodiversity and its Importance **(12 hrs)**

1. Definition, Levels of Biodiversity – genetic, species and ecosystem.

2. Biodiversity and Hot-spots of India: North Eastern, Himalayas and Western Ghats.

3. Loss of Biodiversity-causes and Conservation (In-situ and Ex-Situ Methods).

B.Sc – BOTANY

SEMESTER –VI THEORY MODEL PAPER

PLANT ECOLOGY & PHYTOGEOGRAPHY

Time: 3 Hours **Max. Marks: 70**

SECTION-A

Answer any four of the following question. **4x5=20M.**

(Draw diagrams wherever necessary)

1. Soil profile.
2. Biotic factor.
3. Food web.
4. Energy Flow in Ecosystem.
5. Natality.
6. Biological Spectrum
7. Endemism.
8. Red-Data book.

SECTION-B

Answer any Five of the following questions. **5x10=50M.**

(Draw diagrams wherever necessary)

9. Discusses the importance of Temperature Factor on Plant Growth.
10. Briefly Discuss the Ecological Adaptations of Xerophytes.
11. What are Ecological Pyramids? Describe the Pyramids of numbers, BioMass and Energy.
12. What are biogeochemical cycles? Give an account of Nitrogen cycle?
13. What is Plant Succession? Describe Hydrosere?
14. What are the Characters of Plant Communities.
15. What are Principles of Plant Phytogeography.
16. What is Biodiversity? Explain the Levels of Biodiversity.

Guide lines for paper setter: (for Paper V-BOT-501) W.e.f. 2020-21

1. In Section A: Unit I, II, III, must carry Two question from each unit. Unit IV, V must carry

one question.

2.In section-B: Set minimum two questions from Unit I, II & III and Set One Question from IV, V.

3. See the following table and Model paper.

4. Please provide the scheme of valuation for the paper.

5. Question paper should be both in English and Telugu media.

Unit	Section – A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	2		2		
		10		20	30
Unit – II	2		2		
		10		20	30
Unit – III	2		2		
		10		20	30
Unit-IV	1		1		
		5		10	15
Unit-V	1		1		
		5		10	15
Max. Q & marks	8	(x 5) = 40	8	(x 10) = 80	(Total questions = 16) Marks 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
	(4 x 5) = 20		(5 x 10) = 50		70

INTERNAL EXAMS - 30Marks

(20 mark for unit tests, 5 marks for assignments and remaining 5 marks for seminar etc.)

BOTANY PRACTICAL

PLANT ECOLOGY& PHYTOGEOGRAPHY

SEMESTER- V BOT-502-P

Total hours of teaching 30 hrs @ 3 hrs per week

1. Study of instruments used to measure microclimatic variables; soil thermometer, maximum and minimum thermometer, anemometer, psychomotor, rain gauze, and lux meter.

2. Permeability (percolation; total capacity as well as rate of movement) of different soil samples.

3. Determination of soil pH

4. Study of morphological and anatomical adaptations of hydrophytes and xerophytes. (4each)

5. Determination of minimal quadrate size for the study of herbaceous vegetation in the college campus by species area curve method.

6. Study of Phytoplankton and macrophysics from water bodies.

7. Study of species diversity index of vegetation.

8. Estimation of Primary Productivity of an ecosystem.

9. To study field vegetation with respect to stratification, canopy cover and composition.

10. Study of plants included in agro forestry and social forestry.

11. To locate the hotspots, phyto geographical regions and distribution of endemic plants in the map of India.

12. The following practical should be conducted in the Field/lab with the help of Photographs, herbarium, Floras, Red data book- Study of endangered plants species, critically endangered plants species, vulnerable plant species and monotypic endemic genera of India.

BOTANY PRACTICAL

PLANT ECOLOGY& PHYTOGEOGRAPHY

SEMESTER- V BOT-502-P

Total hours of teaching 30 hrs @ 3 hrs per week

==========

1. Study Project under supervision.....12 Marks
2. Experiment **A** 07Marks
3. Anatomical adaptations of **B** (Section cutting)..... 07Marks
4. Spotters **C&D** .....(2x2 1/2) = 5 Marks
5. Record.....05Marks
6. Viva-Voc.....04Mrks
7. Internal practical exam.....10Marks

Total = 50 Marks

BOTANY PRACTICAL

PLANT ECOLOGY& PHYTOGEOGRAPHY

SEMESTER- V BOT-502-P

Scheme of Valuation

1. Study Project under supervision
   To study Honey Bees and Plants Yielding Honey ..... 12 Marks

2. Experiment **A** -determination of soil porosity/PH..... 07Marks

3. Anatomical adaptations of **B** (Section cutting)
   Xerophytes / Hydrophytes 07Marks

4. Spotters **C&D** anemometer/rain gauze/lux meter ..... (2x2 1/2) = 5 Marks

5. Viva-Voc.....04Mrks

6. Record.....05Marks

7. Internal practical exam.....10Marks

Total = 50 Marks

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF BOTANY

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

12-04-2021

Minutes of the meeting of Board of studies in Botany for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10:00 A.M on 12-04-2021 in the Department of Botany.

-Members Present:-

1)... CH. Beulah Ranjani .....Chairman **(Smt. CH. Beulah Ranjani)**		Head, Department of Botany AG & SG S Degree College of Arts & Science Vuyyuru- 521165.
2)..... **(Sri. Dr. K.Ramesh)**	University Nominee	Department of Botany & Head (I/c) Botany, The Hindu College, Guntur .
3)..... **(Sri. Dr. A. Srinivas Rao)**	Academic Council Nominee	Lecture in Botany, Govt. Degree College Mandapeta, East Godavari.
4)..... **(Smt. N. Manimala)**	Academic Council Nominee	Head, Department of Botany Govt. Degree College Chinthalapudi, West Godavari.
5)..... .....Industrialist. **(Sri. S. Krishna Suman)**		Natural farming. yakamuru Vuyyuru, Krishna dt
N. Ramana Rao. 6)..... **(Sri. N. Ramana Rao)**	Member	Ad hoc Lecturer in Botany AG & SGS Degree College of Arts & Science (Autonomous), Vuyyuru-521165.
G. Rebecca Rachel. 7)..... **(Ms.G. Rebecca Rachel)**	Member	Ad hoc Lecturer in Botany AG & SGS Degree College of Arts & Science (Autonomous), Vuyyuru-521165.
K. Anusha 8).....	student representative	Lecturer in chaitanya college. Gudiwada

Agenda for B.O.S Meeting.

1. To recommend the syllabi (Theory & Practical), Model question paper for II Semester of I B.Sc (B.Z.C), (A.B.C) for the academic year 2020 - 2021.

2. To recommend the syllabi (Theory & Practical), Model question paper for IV Semester of II B.Sc (B.Z.C), (A.B.C) for the academic year 2020 - 2021.

3. To recommend the syllabi (Theory & Practical), Model question paper for VI Semester of III B.Sc (B.Z.C) for the academic year 2020 - 2021.

4. To discuss to the syllabus of Elective & Clusters in VI semester to be for the academic year 2020 21.

5. To recommend the syllabi (Theory & Practical), Model question paper and Blue print of II, IV & VI semester of I, II & III B.Sc (B.Z.C), (A.B.C.) for the academic year 2020 - 2021.

6. To recommend the syllabi of Competitive Botany as Unit- VI in II, IV Semesters for the Academic year 2020 - 2021.

7. To continue a certificate course - Mushroom culture for II Year students in this academic year of 2020-21

8. It is resolved to implement skill development course – plant nursery for I Year students B.Sc (B.Z.C E.M , T.M & AQUA)

9. To recommend the teaching and evolution methods to be followed under Autonomous statues.

10. Any other matter.

CH. Beulah Ranjani
Chairman.

RESOLUTIONS

1. It is resolved to continue changed syllabi (Theory & Practical), model question paper of II Semester of I B.Sc (B.Z.C), (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

2. It is resolved to continue the same syllabi (Theory & Practical), model question paper ofIV Semester of II B.Sc (B.Z.C), (A.B.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

3. It is resolved to continue the same syllabi (Theory & Practical), model question paper of VI Semester of III B.Sc (B.Z.C) under Choice Based Credit System (CBCS) for the academic Year 2020 – 2021.

4. It is resoled to follow Elective-AC (Plant tissue culture and its Biotechnological applications) and Cluster –A (plant Diversity and human welfare, Ethno Botany and Medicinal Botany Pharmacognosy and phyto chemistry.) In VI Semester from the Academic year 2020-21.

5. It is resolved to follow the Model question paper and Blue print of II, IV & VI semester of I, II & III B.Sc (B.Z.C), (A.B.C.) for the academic year 2020-2021.

6. It is resolved to follow the syllabus of Competitive Botany as Unit- VI in II, IV Semesters for the Academic year 2020-2021.Questions from the VI-Unit will be given in IA-1, IA-II but not in semester end exams.

7. It is resolved to implement certificate course for II Year students.

8. It is resolved to implement skill development course – plant nursery for I Year students B.Sc (B.Z.C E.M , T.M & AQUA)

9. It is resolved to continue the following teaching & evolution methods for the Academic year 2020 - 2021.

10. Any other matter.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of OHP and LCD projector to display on U boards etc; for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- **Internal Assessment Examination:**
- Out of maximum 100 marks in each paper for I, II & III B.Sc (B.Z.C), (A.B.C) 30 marks shall be allocated for internal assessment.
- Out of these 30 marks, 20 marks are allocated for announced tests (i.e . IA-1& IA-2). Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, 5 marks are allocated on the basis of candidate's percentage of attendance and remaining 5 marks are allocated for the assignment for I, II & III B.Sc (B.Z.C), (A.B.C).
- **Semester – End Examination:**
- The maximum mark for II, IV, VI Bsc (B.Z.C), (A.B.C) semester – End examination shall be 70 marks and duration of the examination shall be 3 hours. Even though the candidate is absent for two
-

- IA exams/ obtain Zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS".
- Semester – End examination shall be conducted in theory papers at the end of every semester, while in practical papers, these examinations are conducted at the end of II, IV & VI semester for I, II & III B.Sc (B.Z.C), (A.B.C).

- Discussed and recommended for organizing Seminars, Guest lectures, Work – Shops to upgrade the Knowledge of students, for the approval of the Academic Council.

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A.G & S.G. Siddhartha Degree College of Arts & Science

An autonomous college in the jurisdiction of Krishna University

BOTANY	BOT-201C	w.e.f. 2020-21	B. Sc. (BZC)

SEMESTER - II **I B. Sc - BOTANY SYLLABUS** PAPER – II

Basics of Vascular plants and Phytogeography
(Pteridophytes, Gymnosperms, Taxonomy of Angiosperms and Phytogeography) ------

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Unit – 1: Pteridophytes **12 Hrs.**

1. General characteristics of Pteridophyta; classification of Smit (1955) upto divisions.
2. Occurrence, morphology, anatomy, reproduction (developmental details are no needed) and life History of (a) *Lycopodium* (Lycopsida) and (b) *Marsilea* (Filicopsida).
3. Stelar evolution in Pteridophytes;
4. Heterospory and seed habit.

Unit:-2 Gymnosperms: **14hrs.**

1. General characteristics of Gymnosperms; Sporne classification uptoclasses.
2. Occurrence, morphology, anatomy, reproduction (developmental details are not needed) and life history of (a) *Cycas* (Cycadopsida) and (b) *Gnetum* (Gnetopsida).
3. Outlines of geological time scale.
4. A brief account on Cycadeoidea.

Unit – 3: Basic aspects of Taxonomy **13Hrs.**

1. Aim and scope of taxonomy; Species concept: Taxonomic hierarchy, species, genus and family.
2. Plant nomenclature: Binomial system, ICBN- rules for nomenclature.
3. Herbarium and its techniques, BSI herbarium and Kew herbarium; concept of digital herbaria.
4. Bentham and Hooker system of classification;
5. Systematic description and economic importance of the following families:

(a) Annonaceae (b) Curcurbitaceae

Unit – 4: Systematic Taxonomy **13 Hrs.**

1. Systematic description and economic importance of the following families:

(a) Asteraceae (b) Asclepiadaceae (c) Amaranthaceae (d) Euphorbiaceae

(e) Arecaceae and (f) Poaceae

2. Outlines of Angiosperm Phylogeny Group (APG IV).

Unit – 5: Phytogeography **08 Hrs.**

1. Principles of Phytogeography, Distribution (wides, endemic, discontinuous species)
2. Endemism – types and causes.
3. Phytogeographic regions of India.
4. Vegetation types in Andhra Pradesh.

Unit – 6: Competitive syllabus: (Economic Botany)

1. Edible oils: ground nut, coconut & sesamum.

2. Sugar & Startch: sugar cane, beetroot, potato.

3. Paper & Pulp: Bamboo, & Eucalyptus

4. Medicinal & Aromatic: Ashwagandha, Aloevera, holy basil, amla, mint, Lavender.

A.G & S.G. Siddhartha Degree College of Arts & Science

An autonomous college in the jurisdiction of Krishna University

BOTANY	BOT- 201	w.e.f. 2020-21	B. Sc. (BZC)

I B. Sc – BOTANY Model Question Paper

SEMESTER- II Paper Code: BOT - 201

PAPER-II: Basics of Vascular plants and Phytogeography

(Pteridophytes, Gymnosperms, Taxonomy of Angiosperms and Phytogeography)

Time: 3 Hours Max. Marks: 70

SECTION-A

Answer any **four** of the following questions **4x5=20Marks**

(Draw diagrams wherever necessary)

1. Cone of Lycopodium
2. Seed habit
3. Pinus ovuliferous scale
4. T.S of gnetum leaf
5. Herbarium and its techniques
6. Cyathium
7. Discontinuous species
8. Endemism

SECTION-B

Answer any five of the following questions. 5x10=50Marks

(Draw diagrams wherever necessary)

9. Describe the structure and reproduction of Lycopodium?
10. Write an essay on stelar evolution in Pteridophyta?
11. Describe the internal structure of the pinus needle and mention its xerophytic characters.
12. Write an essay on geological time scale?
13. Give an account on Bentham and Hooker system of classification?
14. Write an essay on ICBN?
15. Give an account of the family Asclepiadaceae?
16. Describe the principles of phytogeography?

Guide lines for paper setter: (for Paper I – BOT - 101C) w.e.f. 2020-21.

1. In **section A**: **ONE** question each from Unit III, IV and **TWO** questions each from Unit I, II & V.
2. In **section B**: **ONE** question each from Unit IV, V and **TWO** questions each from Unit I, II& III.
3. See the following table and Model paper for marks distribution.
4. Please provide the scheme of valuation for the paper.
5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	2		2		
		10		20	30
Unit - II	2		2		
		10		20	30
Unit – III	1		2		
		5		20	25
Unit – IV	1		1		
		5		10	15
Unit – V	2		1		
		10		10	20
Max. Q & marks	8 (x 5) = 40		8 (x 10) = 80		(Total questions =16) Total marks = 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
	(4 X 5) = 20		(5 X 10) = 50		70

INTERNAL EXAMS – 30 Marks

(20 marks for unit tests, **5marks** for attendance, **5marks** for Seminars).

Practical syllabus of Botany Core Course – 2/ Semester – II

Basics of Vascular plants and Phytogeography

(Pteridophytes, Gymnosperms, Taxonomy of Angiosperms and Phytogeography)

(Total hours of laboratory exercises 30 Hrs. @ 02 Hrs. /Week)

Course Outcomes:

On successful completion of this course students shall be able to:

1. Demonstrate the techniques of section cutting, preparing slides, identifying of the material and drawing exact figures.
2. Compare and contrast the morphological, anatomical and reproductive features of vascular plants.
3. Identify the local angiosperms of the families prescribed to their genus and species level and prepare herbarium.
4. Exhibit skills of preparing slides, identifying the given twigs in the lab and drawing figures of plant twigs, flowers and floral diagrams as they are.
5. Prepare and preserve specimens of local wild plants using herbarium techniques.

Practical Syllabus:

1. Study/ microscopic observation of vegetative, sectional/anatomical and reproductive structures of the following using temporary or permanent slides/ specimens/ mounts

a. Pteridophyta : *Lycopodium* and *Marselia*

b. Gymnosperms: *Cycas* and *Gnetum*

2. Study of fossil specimens of *Cycadeoidea* and *Pentoxylon* (photographs /diagrams can be shown if specimens are not available).
3. Demonstration of herbarium techniques.
4. Systematic / taxonomic study of locally available plants belonging to the families prescribed in theory syllabus. (Submission of 30 number of Herbarium sheets of wild plants with the standard system is mandatory).
5. Mapping of phytogeographical regions of the globe and India.

Model Question Paper for Practical Examination

Semester – II/ Botany Core Course – 2

Basics of Vascular plants and Phytogeography

(Pteridophytes, Gymnosperms, Taxonomy of Angiosperms and Phytogeography)

Time:3Hrs. Max.Marks: 50

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1. Take T.S. of the material **'A'** (Pteridophyta), make a temporary slide and Justify with with identification characters……..**6 M**
2. Take T.S. of the material **'B'** (Gymnosperms), make a temporary slide and justify with identification characters ……..…… **06 M**
3. Describe the vegetative and floral characters of the material **'C'**(Taxonomy of Angiosperms) derive and its systematic position……..……..……..**05 M**
4. Identify the specimen **'D'** (Fossil Gymnosperm) and give specific reasons……..**04 M**
5. Locate the specified phytogeographical regions (2x2M) in the world / India **(E)** map supplied to you……..**04 M**

Total: 25M

Internals:

a) Record …… .10M
b) Herbarium ……... 04M
c) Field note book ……03M
d)Viva-voce…… ..03M
e) Attendance……05M

Total: 25M

Suggested co-curricular activities for Botany Core Course-2 in Semester-II:

A.Measurable :

a. student seminars:

1. Fossil Pteridophytes.
2. Aquatic ferns and tree ferns
3. Ecological and economic importance of Pteridophytes
4. Evolution of male and female gametophytes in Gymnosperms.
5. Endemic and endangered Gymnosperms.
6. Ecological and economic importance of Gymnosperms.
7. Floras and their importance: Flora of British India and Flora of Madras Presidency.
8. Botanical gardens and their importance: National Botanic garden and Royal Botanic garden.
9. Artificial, Natural and Phylogenetic classification systems.
10. Molecular markers used in APG system of classification.
11. Vessel less angiosperms.
12. Insectivorous plants.
13. Parasitic angiosperms.
14. Continental drift theory and species isolation.

b.Student Study Projects :

1.Collection and identification of Pteridophytes from their native locality/ making an album by collecting photographs of Pteridophytes.

2.Collection and identification of Gymnospermsfrom their native locality/ making an album by collecting photographs of Gymnosperms.

3.Collection of information on famous herbaria in the world and preparation of a report.

4. Collection of information on famous botanic gardens in the world and preparation of a report.

5. Collection of data on vegetables (leafy and fruity) plants in the market and and preparation of a report on their taxonomy.

6. Collection and identification of fresh and dry fruits plants in the market and and preparation of a report on their taxonomy.

7. Collection of data on plants of ethnic and ethno botanical importance from their native locality.

8. Preparation of a local flora by enlisting the plants of their native place.

c. Assignments: Written assignment at home / during '0' hour at college; preparation of charts with drawings, making models etc., on topics included in syllabus.

B. General :

1. Visit to Botanic garden in a Research institute/University to see the live plants.
2. Virtual tour in websites for digital herbaria and botanic gardens.
3. Acquaint with standard floras like – Flora of Madras Presidency, Flora of their respective district in Andhra Pradesh.
4. Looking into vegetation of different phytogeographical regions using web resources.
5. Group Discussion (GD)/ Quiz/ Just A Minute (JAM) on different modules in syllabus of the course.

Text books:

- Botany – I (Vrukshasastram-I) : Telugu Akademi, Hyderabad
- Botany – II (Vrukshasastram-II) : Telugu Akademi, Hyderabad
- Acharya, B.C., (2019) *Archchegoniates,* Kalyani Publishers, New Delhi
- Bhattacharya, K., G. Hait & Ghosh, A. K., (2011) *A Text Book of Botany, Volume- II,* New Central Book Agency Pvt. Ltd., Kolkata

Books for Reference:

- Smith, G.M. (1971)*CryptogamicBotanyVol. II*., Tata McGraw Hill, New Delhi
- Sharma,O.P.(2012)Pteridophyta. Tata McGraw-Hill, New Delhi
- Kramer, K.U.&P. S. Green (1990) *The Families and Genera of Vascular Plants, Volume –I*: *Pteridophytes and Gymnosperms*(Ed.K.Kubitzki) Springe-Verlag, New York
- Bhatnagar, S.P. &AlokMoitra (1996)*Gymnosperms*. New Age International, New Delhi
- Coulter, J.M. &C.J.Chamberlain(1910) *Morphology of Gymnosperms,*The University of Chicago Press, Chicago, Illinois
- Govil, C.M. (2007)*Gymnosperms : Extinct and Extant*. KRISHNA Prakashan Media (P) Ltd.Meerut& Delhi
- Sporne, K.R.(1971)*The Morphology of Gymnosperms*.Hutchinsons Co. Ltd., London

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BOTANY	BOT-401C	w.e.f. 2020-21	B. Sc. (BZC)

SEMESTER - IV **II B. Sc - BOTANY SYLLABUS** PAPER – IV

Plant Embryology and Plant Metabolism

Hours: 60 @ 4 hrs per week

UNIT – I: EMBRYOLOGY (12hrs)

1. Introduction: History and Importance of Embryology.
2. Anther structure, Micro sporogenesis and development of male gametophyte.
3. Ovule structure and types; Mega sporogenesis; Monosporic; Bisporic and Tetrasporic types of female gametophyte / embryosac development.
4. Pollination -Types, Fertilization.

UNIT –II: EMBRYOLOGY AND PALYNOLOGY (12 hrs)

1. Endosperm Development and types.
2. Embryo - development and types.
3. Polyembryony and Apomixis - an outline.
4. Palynology: Principles and applications.

UNIT –III: PLANT METABOLISM- I (12 hrs)

1. Photosynthesis: Electromagnetic spectrum, absorption and action spectra; Red drop and Emerson enhancement effect, concept of Z scheme in photosystems, Photosynthetic pigments, mechanism of photosynthetic electron transport and evolution of oxygen, photo phosphorylation, carbon assimilation pathways: C_3, C_4 & CAM and Photorespiration.
2. Translocation of organic substances: Mechanism of phloem transport, source-sink relationships.

UNIT –IV: PLANT METABOLISM- II (12 hrs)

1.Respiration: Aerobic and Anaerobic, Glycolysis, Krebs cycle, electron transport system, mechanism of oxidative phosphorylation, pentose phosphate pathway.

2. Lipid Metabolism**:** Structure and functions of lipids, conversion of lipids to carbohydrates, Beta-oxidation.

UNIT –V: GROWTH AND DEVELOPMENT (12 hrs)

1. Growth and development: Definition, phases and kinetics of growth, Physiological effects of phytohormones - auxins, gibberellins, cytokinins, ABA and ethylene
2. Physiology of flowering and photoperiodism, role of phytochrome in flowering.
3. Stress Physiology: Concept and plant responses to water, salt and temperature stresses.

UNIT –VI: Competitive syllabus:

1. Biofertilizers: Components of biofertilizers- bio compost tricho –card, azotobacter, phosphours, vermin compst, importance of biofertilizers, applications of biofertilizers.

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BOTANY	BOT- 401	w.e.f. 2020-21	B. Sc. (BZC)

II B. Sc – BOTANY Model Question Paper

SEMESTER- IV Paper Code: BOT - 401

PAPER-IV: Plant Embryology and Plant Metabolism

Time: 3 Hours Max. Marks: 70

SECTION-A

Answer any **four** of the following questions **4x5=20Marks**
(Draw diagrams wherever necessary)

9. Microsporogenesis.
10. Allogamy.
11. Helobial endosperm.
12. Emerson enhancement effect.
13. Anaerobic respiration.
14. Ethylene.
15. Photoperiodism.
16. Phytochrome.

SECTION-B

Answer any five of the following questions. 5x10=50Marks

(Draw diagrams wherever necessary)

9. What is an Embryosac? Describe any five of the tetrasporic type of Embryosac developments.
10. Give an account of Polyembryony.
11. Write an essay on the Principles and applications of Palynology.
12. Describe the carbon assimilation pathway in C4 plants.
13. Write an essay on the Translocation of organic substances in higher plants.
14. Describe various reactions of Krebs cycle.
15. Write an essay on various types of Lipids.
16. Give an account of Auxins and Gibberellins.

Guide lines for paper setter: (for Paper IV – BOT- 401) w.e.f. 2020-21

1. In **section A**: Unit II, III & IV must carry **one** question from each Unit, Unit I must carry **two** questions and Unit V must carry **three** questions.

2. In **section- B**: Set minimum **two** questions from Unit II, III & IV.

   One question each from Unit I and Unit V.

3. See the following table and Model paper for marks distribution.
4. Please provide the scheme of valuation for the paper.

5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	2		1		
		10		10	20
Unit - II	1		2		
		05		20	25
Unit – III	1		2		
		05		20	25
Unit – IV	1		2		
		05		20	25
Unit – V	3		1		
		15		10	25
Max. Q & marks	8 (x 5) = 40		8 (x 10) = 80		(Total questions =16) marks = 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
	(4 X 5) = 20		(5 X 10) = 50		70

[INTERNAL EXAMS - 30Marks

(20marks for unit tests, **5** marks for seminar and remaining **5** marks for attendance).

II B. Sc – BOTANY SEMESTER- IV.

PRACTICAL SYLLABUS

PAPER- IV - **Plant Embryology and Plant Metabolism** (BOT – 401)

Total hours of laboratory Exercises 45 hrs @ 3 per week . w.e.f. 2019-20

Suggested Laboratory Exercises:

1. Structure of pollen grains using whole mounts (Catharanthus, Hibiscus, Acacia, Grass).
2. Demonstration of Pollen viability test using in- vitro germination (Catharanthus).
3. Study of ovule types and developmental stages of embryo sac using permanent slides / Photographs.
4. Structure of endosperm (nuclear and cellular); Developmental stages of dicot and monocot Embryos using permanent slides / Photographs.
5. Isolation and mounting of embryo (using Symopsis / Senna / Crotalaria).

Major experiments:

6. Separation of chloroplast pigments using paper chromatography technique.
7. Rate of photosynthesis under varying CO_2 concentration.
8. Effect of kind of light intensity on oxygen evolution during photosynthesis using Wilmontt' bubbler.
9. Titratable acidity estimation of Lemon or Tamarind leaves.

Minor experiments:

10. Release of CO_2 in Aerobic respiration.
11. Demonstration of the process of fermentation using Kuhne's fermentation vessel.
12. Demonstration of Phototropism.
13. Measuring the Plant growth using Arc Auxanometer.

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II BSc Botany Practical Exam (w.e.f. 2020-21)

IV Semester **Practical – IV** **(BOT-401P)**

Plant Embryology and Plant Metabolism Model Paper

Time: 3 Hrs. Max.Marks:50

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1. Conduct experiment 'A', write down the procedure and conclusions.

   Tabulate the results if any……..11M

2. Write the salient features of experiment 'B' with the help of neat labelled diagram. 05M

3. Identify and write notes on 'C, D & E' (3X3M) ……09M

Total ……25M

Scheme of valuation

1. 'A' –Physiology –major experiment
   Setting and conducting of the experiment 6M, Procedure 3M, Conclusion1M, tabulation1M. …… =11M

2. 'B'- Physiology –minor experiment Salient features 3M, Diagram2M……..= 05M
3. Identify C, D and E (3X3)
   (Identification - 1 + Diagram-1 + Notes- 1 =Total = 3marks for each)……... = 09M
   'C' from Anther T.S / Pollen grains.
   'D' - Slide from types of Ovules.
   'E'– Slide from Embryosacs / Embryos.

(Total……25M)

Internal:

a) Record…… 10M
b) Attendance……..……05M
c) Internal Practical Exam……...04M
d) Self study project report……..06M

Total……25M)

Grand Total ……50M

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BOTANY	BOT-601 (GE)	2020-2021	B.Sc. (BZC)

PAPER – VII **ELECTIVE-C** **SEMESTER- VI**

Plant tissue culture and its Biotechnological applications

Total hours of teaching 45hrs @ 3hrs per week **Credits: 3**

Unit I: PLANT TISSUE CULTURE – 1 **(12hrs)**

1. History of plant tissue culture research - basic principles of plant tissue callus culture, meristems culture, organ culture, Totipotency of cells.

2. Sterilization procedures, culture medium composition and preparations of explanats. Murashige and Skoog's (MS medium), Cell and protoplast culture.

3. Somatic Hybrids and Cybrids (out lines), Artificial Seeds, Somaclonal variations. Applications of Tissue culture (Brief account).

UNIT-II: Plant Tissue culture -2 **(12hrs)**

1. Endosperm culture – Embryo culture -culture requirements – applications, embryo rescue technique.
2. Cryopreservation; Germ plasm conservation.

Unit III: Recombinant DNA technology **(12hrs)**

1. r-DNA technology: Steps in r-DNA technology and tools

.

2. Cloning Vectors: Prokaryotic (pBR322, Ti plasmid and Lambda phage, Eukaryotic Vectors (YAC and briefly PAC).

3. Gene cloning (Bacterial Transformation and selection of recombinant clones, PCR Mediated gene cloning)

Unit IV: Methods of gene transfer **(12hrs)**

1. Methods of gene transfer- Agro bacterium-mediated, direct gene transfer By Electroporation, Microinjection, Micro projectile bombardment.

2. Selection of transgenics – selectable marker and reporter genes (Luciferase, GUS, GFP).

Unit V: Applications of Biotechnology **(12 hrs)**

1. Applications of Plant Genetic Engineering – crop improvement, herbicide resistance, insect resistance, virus resistance.

2. Genetic modification – transgenic plants for pest resistant (Bt-cotton);

herbicide resistance (Round Up Ready soybean); improved agronomic traits flavrSavr tomato,

Golden rice.

III B. Sc – BOTANY Model paper (2019-2020)

Plant tissue culture and its Biotechnological applications

SEMESTER- VI **ELECTIVE-C PAPER – VII**

Time: 3 Hours **Paper code: BOT-VII C** **Max. Marks: 70**

SECTION-A

Answer any FOUR of the following question **4x5=20M.**

(Draw diagrams wherever necessary)

1. Organ culture.
2. Somatic hybrids.
3. Cryopreservation.
4. Plasmids
5. Colony Hybridization.
6. Electroporation.
7. GUS.
8. Bt-Cotton.

SECTION-B

Answer any Five of the following questions. **5 x 10= 50M.**

(Draw diagrams wherever necessary)

9. Describe the composition and preparation of MS culture media.
10. Give an account on applications of tissue culture?
11. Write about Germplasm conservation?
12. Write notes on endosperm culture and their applications.
13. Explain the PCR mediated gene cloning.
14. Explain the various types of cloning vectors.
15. Write about methods of gene transfer techniques.
16. Give an account on transgenic plants?

Guide lines for paper setter: (for Paper VII -BOT-601) W.e.f. 2020-21.

1. In Section A: Unit I,III,IV must carry Two question from each unit. Unit II, V must carry one question.
2. In section-B: Set minimum two questions from Unit I, II, III and Set One Question from IV, V.
3. See the following table and Model paper.
4. Please provide the scheme of valuation for the paper.
5. Question paper should be both in English and Telugu media.

Unit	Section – A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	2		2		
	10			20	30
Unit – II	1		2		
		5		20	25
Unit – III	2		2		
		10		20	30
Unit-IV	2		1		
		10		10	20
Unit-V	1		1		
		5		10	15
Max. Q & marks	8	(x 5) = 40	8	(x 10) = 80	(Total questions = 16) Marks 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
	(4 x 5) = 20		(5 x 10) = 50		70

INTERNAL EXAMS - 30Marks

(20 mark for unit tests, 5 marks for assignments and remaining 5 marks for seminar etc.)

Practical Paper VII-C

Plant Tissue Culture &Plant Biotechnology

SEMESTER- VI BOT – 601P

Total hours of teaching 30hrs @ 2hrs per week **Credits:2**

==========

1. (a) Preparation of MS medium.

   (b) Demonstration of in vitro sterilization methods and inoculation methods using leaf and nodal explants of Tobacco/ Datura/ Brassica etc.

2. Study of embryo and culture, micro propagation of Banana, somatic embryogenesis, artificial seeds through photographs.

3. Construction of restriction map of circular and linear DNA from the data provided.

4. Study of methods of gene transfer through photographs: Agrobacterium- mediated, directgene transfer by electroporation, microinjection, and micro projectile bombardment.

5. Different steps involved in genetic engineering for production of Bt. cotton, Golden rice, Flavr Savr tomato through photographs.

6. Isolation of plasmid DNA.

7. Restriction digestion and gel electrophoresis of plasmid DNA (optional)

8. Field visit to a lab involved in tissue culture

9. Study project under supervision of lecturer – tissue culture/ genetic engineering

Expected domain skills to be achieved: Ability to prepare artificial nutrient media, preparing independently, applying various sterilization procedures for media, glassware and biological materials, invitro propagation of Banana callus, morphogenesis--s, clonal propagation methods, isolation of plasmid DNA individually and as a group.

Plant Tissue Culture &Plant Biotechnology

SEMESTER- VI BOT – 601(GE) P

Total hours of teaching 30hrs @ 2hrs per week **Credits: 2**

Q1. Project report (A) -……....10M
Viva-voce on study project……..02M

Q2. Identify and write notes on B, C and D (3x2)……...06 M
B- Tool/instrument/container used in sterilization
C- Tool/instrument/container used in gene transfer
D- GM crops (Photographs)

Q3.Construct restriction map of circular and/ or linear DNA from the data Provided……..…04M

Q4. Field report……....03M

Total.....25 **Marks**

Internal Assessment

a. Record - ……..…..05M
b. Attendance……05M
e. Internal practical exam……...05M
d. preparing album for P.T & B.T. Applications……...10M

Total… 25Marks

Total ---------- 50M

III-BZC(B. Sc)	BOTANY-VIII	BOT-602 (CE)	2020-21

Paper – VIII-A-1: PLANT DIVERSITY AND HUMAN WELFARE **Credits**: 3
Total hours of teaching 60hrs @ 6hrs per week

Unit- I: Plant diversity and its scope: **(12hrs)**

1. Genetic diversity, Species diversity, Plant diversity at the ecosystem level,
2. Agro biodiversity and Vavilov Crop centers.
3. Values and uses of biodiversity: Ethical and aesthetic values, Uses of plants.

Unit -II: Loss of biodiversity: **(12hrs)**

1. Loss of genetic diversity, Loss of species diversity, Loss of ecosystem diversity, Loss of agro biodiversity, projected scenario for biodiversity loss.
2. Management of plant biodiversity: Organizations associated with biodiversity Management-Methodology for execution-IUCN, UNEP, UNESCO, WWF, NBPGR; Biodiversity legislation and conservations, Biodiversity information management and Communication.

Unit-III: Contemporary practices in resource management: **(12hrs)**

1. Environmental Impact Assessment (EIA), Geographical Information System GIS,
2. Solid and liquid waste management.

Unit -IV: Conservation of biodiversity **(12hrs)**

1. Conservation of genetic diversity, species diversity.
2. Social approaches to conservation, Biodiversity awareness Programmes, Sustainable development.

Unit- V: Role of plants in relation to Human Welfare **(12hrs)**

1 Importance of forestry, their utilization and commercial aspects-
a) Avenue trees, b) ornamental plants of India.
2 Fruits and nuts: Important fruit crops their commercial importance.
Wood, fiber and their uses.

SEMESTER- VI Paper – VIII-A-1 PAPER – VIII

PLANT DIVERSITY AND HUMAN WELFARE

Time: 3 Hours Max. Marks70

SECTION-A

Answer any FOUR of the following question **4 x 5=20M.**

1. Species Diversity.
2. Wild Taxa.
3. NBPGR.
4. Biodiversity and its Conservation.
5. EIA.
6. Geographical information system (GIS).
7. Sustainable Development.
8. Fiber and their uses.

SECTION-B

Answer any Five of the following questions. **5 x 10 = 50M.**

9. Give a note on Plant Diversity and its Scope.
10. Write about Values and Uses of Biodiversity.
11. What is Biodiversity? Discuss about the Loss of Biodiversity?
12. Explain the Various Types Organizations in Biodiversity?
13. Write an essay on EIA?
14. Write essay on Liquid Waste Management?
15. What is Conservation? Explain the In-situ conservation?
16. What are Fruit crops? Explain their Commercial importance?

1.In Section A: Unit I, II, III, must carry Two question from each unit. Unit IV, V must carry one question.

2. In section-B: Set minimum two questions from Unit I, II & III and Set One Question from IV, V.

3. See the following table and Model paper.

4. Please provide the scheme of valuation for the paper.

5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	2		2		
		10		20	30
Unit – II	2		2		
		10		20	30
Unit – III	1		2		
		05		20	25
Unit-IV	1		1		
		5		10	15
Unit-V	2		1		
		10		10	20
Max. Q & marks	8	(x 5) = 40	8	(x 10) = 80	(Total questions = 16) Marks 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
	(4 x 5) = 20		(5 x 10) = 50		70

INTERNAL EXAMS - 30Marks

(20 mark for unit tests, 5 marks for assignments and remaining 5 marks for seminar etc)

Paper – VIII-A-1: Practicals:

PLANT DIVERSITY AND HUMAN WELFARE

SEMESTER- VI **BOT-602-A-1(CL) P**

Time: 3hrs Max. Marks: 50

1) Study of plant diversity (flowering plants).
2) Study of exotic species- Identification and morphological characteristics.
3) Identification of forest trees through bark, wood, flowers leaves and fruits.
4) Maceration, Study of wood (Tracheary elements, fibres).
5) Methods of preservation and canning of fruits.
6) Visit to the local ecosystem to study the plants.
7) Study of Solid and Liquid waste management systems in rural/urban areas.

SCHEME OF PRACTICAL EXAMINATION

I. Assign the plants **A, B and C** to their respective families, giving reasons, family name and classification-1marks, important diagrams- 2 marks……**09 marks**

II. Give the protocol of **D ……..…….04marks**

III. Comment on specimens **E, F and G ……...3x2 = 06 marks**

IV. Report on Field visit…… **4 marks**
To study sources of firewood (10 plants), timber-yielding trees (10trees) and bamboos.

V. Viva-Voce ……**02marks**

Total……..… 25 **Marks**

Internals

a. Record - ……..….05M
b. Attendance……05M
c. Internal practical exam……..5M
d. project work on Cultivated Plant, Wild Plant, Exotic plant….10M

Total…… **25 Marks**

Total ----------**50M**

KEY
A-Cultivated Plant
B- Wild Plant
C –Exotic plant
D- Preservation and canning of fruits, solid and liquid waste management systems in rural/urban areas
E. Bark/wood/fruit yielding plant
F. Nuts/ Alcoholic beverage plant
G. wood /Fibre yielding plant

PLANT DIVERSITY AND HUMAN WELFARE

SEMESTER- VI BOT-602-A-(CL) P

SCHEME OF PRACTICAL EXAMINATION

Time: 3hrs Max. Marks: 50

I. Assign the plants **A, B and C** to their respective families, giving reasons, family name and classification-1marks, important diagrams- 2 marks……..……**09 marks**

II. Give the protocol of **D…… ……..04marks**

III. Comment on specimens **E, F and G ……3x2= 06 marks**

IV. Report on Field visit…… **4 marks**
To study sources of firewood (10 plants), timber-yielding trees (10trees) and bamboos.

V. Viva-Voce…… ……**2marks**

Total ---- 25marks

Internals:

a. Record ……..……..…..05M
b. Attendance……05M
c. Internal practical exam……..05M
d. project work on Cultivated Plant, Wild Plant, Exotic plant….10M

Total ---- 25marks

Total ----------50M

KEY
A-Cultivated Plant
B- Wild Plant
C –Exotic plant
D- Preservation and canning of fruits, solid and liquid waste management systems in rural/urban areas
E. Bark/wood/fruit yielding plant
F. Nuts/ Alcoholic beverage plant
G. wood /Fibre yielding plant

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III. BZC (B. Sc)	BOTANY-VIII	BOT- 603 (CE)	2020-21

Paper – VIII-A-2 Credits: 3

ETHNOBOTANY AND MEDICINAL BOTANY

Total hours of teaching 60hrs @ 6hrs per week

Unit–I:Ethnobotany **(12h**

1. Introduction, concept, scope and objectives
2. Major and minor ethnic groups or Tribal's of India, and their lifestyles.
3. Plants used by the tribal populations:
   a) Food plants, b) Intoxicants
   c) Beverages, d) Resins and oils and miscellaneous uses.

Unit -II: Role of ethnobotany in modern Medicine **(12hrs)**

1. Role of Ethnobotany in modern medicine with special example; Rauvolfia srepentina, Artemisia annua, Withaniasomnifera.
2. Significance of the following plants in ethno botanical practices (along with their habitat and morphology)
   a)Azadirachtaindica, b)Vitexnegundo, c)Ocimum sanctum,,d) phyllanthus niruri
3. Medico-Ethnobotanical Sources of India.

Unit-III: Ethno botany as a tool to protect interests of ethnic groups **(12hrs)**

1. Sharing of wealth concept with few examples from India.
2. Biopiracy, Intellectual Property Rights and Traditional Knowledge.

Unit -IV: History, Scope and Importance of Medicinal Plants, Indigenous Medicinal Sciences (12hrs)

1. Definition and Scope-Ayurveda: History, origin, panchamahabhutas, saptadhatu and tridosha concepts, Rasayana, plants used in ayurvedic treatments.

2 Homeopathy: Origin of Homeopathy medicinal systems, Basis of Homeopathy, plants used in Homeopathy medicine.

Unit -V: Conservation of endangered and endemic medicinal plants **(12hrs)**

1. Definition: endemic and endangered medicinal plants,
2. Red list criteria
3. In situ conservation: Sacred groves, National Parks
4. Ex situ conservation: Botanical Gardens, Seed Banks.

III B. Sc – BOTANY Model paper (2019-2020)

Title of the Paper: **ETHNOBOTANY AND MEDICINAL BOTANY**

SEMESTER- VI **PAPER – VIII** **Cluster – A** **Paper – VIII-A-2**

Time: 3 Hours **Max. Marks: 70**

SECTION-A

Answer any four of the following question **4x5=20M.**

1. Intoxicants.
2. Withania somnifera.
3. Phyllanthus niruri
4. Curcuma langa.
5. Biopiracy
6. Saptdhatu and Tridosha.
7. Tumors treatments.
8. Red list criteria.

SECTION-B

Answer any Five of the following questions. **5 x10=50M.**

9. Explain the Relevance of Ethno-Botany in the present Context.
10. Discus about Major and Minor Ethnic groups of India.
11. Write about Botanical name, Family, Active principle and medicinal uses of Rauvolfia serpentine, Artemisia annua.
12. Write about the Medico-Ethnobotanical Sources of India.
13. Write about the Intellectual property rights and Traditional knowledge.
14. Write an Essay an Basic concepts of Ayurvada.
15. What is Homeopathy system of Medicine ? Explain their Basic Concepts ?
16. Give an account of Endemic and Endangered Medicina plants ?

1. In Section A: Unit I, IV, must carry two questions from each unit. Unit II must carry Two Question.Unit III, V must carry one question.
2. In section-B: Set minimum Two questions from Unit I, II & IV and Set One Question from III , V.
3. See the following table and Model paper.
4. Please provide the scheme of valuation for the paper.
5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	2		2		
		10		20	30
Unit – II	2		2		
		10		20	30
Unit – III	1		1		
		05		10	15
Unit-IV	2		2		
		10		20	30
Unit-V	1		1		
		5		10	15
Max. Q & marks	8	(x 5) = 40	8	(x 10) = 80	(Total questions = 16) Marks 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
	(4 x 5) = 20		(5 x 10) = 50		70

INTERNAL EXAMS - 30Marks
(20 mark for unit tests, 5 marks for assignments and remaining 5 marks for seminar etc.).

III B. Sc – Practical Paper

ETHNOBOTANY AND MEDICINAL BOTANY

SEMESTER- VI **BOT- VIII- 603- A- 2 (CL) P**

Time: 3 Hours **Max. Marks- 50**

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1. Ethno botanical specimens as prescribed in theory syllabus
2. Detailed morphological and anatomical study of medicinally important part(s) of locally available plants (Minimum 8 plants) used in traditional medicine.
3. Field visits to identify and collect ethno medicinal plants used by local tribes/folklore.

Practical Question Paper

I. Identify the specimen A- Give reasons (morphological and anatomical) and draw Labeled sketches ……..……10marks

II. Identify and write about the medicinal uses of B and C…….....2x2 = 04 marks

III. Comment on D and E……...….2 x 2= 04 marks

IV. Report on Field visit:……04 marks
List to be prepared mentioning special features of plants used by tribal Populations as Medicinal Plants & Spices. Write their botanical and common names, Parts used and diseases/disorders for which they are prescribed.

V. Viva-voce…… 03 marks

Total……**25 Marks**

Internals Assessment

a. Record - ……..…...05M
b. Attendance……05M
c. Internal practical exam.……...05M
d. Major and minor ethnic groups or Tribal's of India, and their lifestyles miniproject……10M

Total……**25 Marks**

Total---------- ------50Marks

KEY

A-Plants given in unit II (i)
B-Plants used in Ayurvedic prearations (Amla in Chyavanprash, Senna in Laxatives)
C - - Do -
D. Photographs of National parks, Biosphere reserves and Botanical gardens.
E. Photograph of famous personalities in Ayurveda/Siddha medicine.

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III-BZC B.Sc	BOTANY-VIII	BOT-604- (CE)	2020-21

SEM-VI: **Pharmacognosy and Phytochemistry** Credits: 3
Total hours of teaching 60hrs @ 6hrs per week --

Unit-I: Pharmacognosy: **(12hrs)**

1. Definition, Importance
2. Classification of drugs - Chemical and Pharmacological
3. Drug evaluation methods

Unit –II: Organoleptic and microscopic studies: **(12hrs)**

1. Organoleptic and microscopic studies with reference to nature of active principles and common adulterants of
2. a) Adhatoda vasica(leaf) b) Strychnosnuxvomica (seed),
c)Rauwolfia serpentina(root) d)Zinziberofficinalis e)Catharanthusroseus.

Unit-III: Secondary Metabolites: **(12hrs)**

1. Definition of primary and secondary metabolites and their differences, Major types - terpenes, Phenolics, alkaloids, terpenoids, steroids.
2. A brief idea about extraction of alkaloids. Origin of secondary metabolites–detailed account of Mevalonate pathway,Shikimate pathway.

UNIT-IV: Phytochemistry: **(12hrs)**

`Biosynthesis and sources of drugs:

1. Structural type biosynthesis importance of simple Phenolic compounds, coumarins, Flavonoids.
2. Steroids, sterols: Biosynthesis, commercial importance.
3. Alkaloids: Different groups, biosynthesis, bioactivity.

It is resolved to implement skill development course – plant nursery for I Year students B.Sc (B.Z.C E.M , T.M & AQUA)

4 .Volatile oils, aromatherapy.

UNIT-V: Enzymes, proteins and amino acids as drugs: **(12hrs)**

1. Vaccines, toxins and toxoids, immune globulins, antiserums,
2. Vitamins, Antibiotics – chemical nature, mode of action.
3. Pharmacological action of plant drugs – tumor inhibitors, PAF antagonists, antioxidants, phytoestrogens and others.

III B. Sc – BOTANY Model paper (2020-2021)

SEMESTER- VI **Paper – VIII-A-3** PAPER – VIII Cluster – A

Title of the Paper**: Pharmacognosy and Photochemistry**

Time: 3 Hours Max. Marks: 70

SECTION-A

Answer any **Four** of the following question 4x5=20M.

1. Classification of Drugs.
2. Catharanthus roseus.
3. Difference between Primary and Secondary Metabolites.
4. Trpenoids.
5. Flavonoids.
6. Aromatherapy
7. Vaccines.
8. Vitamins.

SECTION-B

Answer any **Five** of the following questions. 5 x10=50M.

9. Give an account on Pharmacognosy**?**
10. Write an essay on Drug Evolution methods?
11. Write about nature and Active principles of Adhathoda vasica, Rauwolfia serpentine?
12. Write about common Adulteration of Zinziber officinalis, Strychnos nuxvomica?
13. Give an Brief note on Extraction of Alkaloids?
14. Give an account of mevalonate pathway?
15. Write about Bio-Synthesis and Commercial importance of Steroids, Sterols?
16. Explain the role of Different Enzyme inhibitors?

Guide lines for paper setter: (for Paper VI-BOT-604) W.e.f. 2020-21.

1. In Section A: Unit III, IV, V must carry two questions from each unit. Unit I, II, must carry One question.
2. In section-B: Set minimum two questions from Unit I, II & III and Set One Question from IV, V.
3. See the following table and Model paper.
4. Please provide the scheme of valuation for the paper.
5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	1		2		
		5		20	25
Unit – II	1		2		
		5		20	25
Unit – III	2		2		
		10		20	30
Unit-IV	2		1		
		10		10	20
Unit-V	2		1		
		10		10	20
Max. Q & marks	8	(x 5) = 40	8	(x 10) = 80	(Total questions = 16) Marks 120
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		5		
	(5 x 5) = 25		(5 x 10) = 50		70

INTERNAL EXAMS - 30Mark
(20 mark for unit tests, 5 marks for assignments and remaining 5 marks for seminar etc.)

Pharmacognosy and Phytochemistry

SEMESTER- VI
Time: 3 Hours

BOT-VIII-604-A- 3 (CL)P
Max. Marks- 50

1. Physical and chemical tests for evaluation of unorganized drugs-
   Asaphoetida, Honey, Castor oil. Acacia
2. Identification of bark drugs – cinchona, cinnamom
3. Identification of fruit drugs – Cardamom, Coriander
4. Identification of root and rhizome drugs- Ginger, Garlic, Turmeric
5. Identification of whole plant – Aloe,Vinca, Punarnava
6. Herbarium of medicinal plants (minimum of 20 platns)
7. Collection of locally available crude drugs from local venders (minimum of 20)

Practical Question Paper

I. Identify the given crude drugs **A& B** by Anatomical study and Morphological Study……..**2X5 = 10marks**

II. Perform suitable chemical test and identify the given phytochemical **C…….05marks**

III. Comment on **D** and **E** ……...**2x2= 04 marks**

IV. Herbarium and submission of drugs **-…… .04 marks**

IV. Viva-Voce ……..…...**02 marks**

Total…… **25 Marks**

Internals:

a. Record - ……..….05M
b. Attendance……05M
c. Internal practical exam……..05M
d. Miniproject on medicinal……..10 M

Total….. ……**20Marks**

Total ----------50M

KEY

A-Flower/fruit drugs
B-Rhizome/whole plant drugs
C- Tannins/ phenolics/steroids/ isoprenoids /Asaphoetida/ Honey/ Castor oil/ Acacia
D. Column Chromatography/ Gas Chromatogram/HPLC (photograph/ instrument used for chemical analysis of drugs.

Elective paper

Books for Reference:

1. Pullaiah. T. and M.V.Subba Rao. 2009. Plant Tissue culture. Scientific Publishers, New Delhi.

2. Bhojwani, S.S. and Razdan, M.K., (1996). Plant Tissue Culture: Theory and Practice. Elsevier Science Amsterdam. The Netherlands.

3. Glick, B.R., Pasternak, J.J. (2003). Molecular Biotechnology- Principles and Applications ofrecombinant DNA. ASM Press, Washington.

4. Bhojwani, S.S. and Bhatnagar, S.P. (2011). The Embryology of Angiosperms. VikasPublicationHouse Pvt. Ltd., New Delhi. 5th edition.

CLUSTER PAPER I

Suggested Readings:

1. Krishnamurthy, K.V. (2004). An Advanced Text Book of Biodiversity - Principles and Practices. Oxford and IBH Publications Co. Pvt. Ltd. New Delhi.

2. Singh, J. S., Singh, S.P. and Gupta, S. (2006). Ecology, Environment and Resource Conservation. Anamaya Publications, New Delhi.

3. Rogers, P.P., Jalal, K.F. and Boyd, J.A. (2008). An Introduction to Sustainable Development. Prentice Hall of India Private Limited, New Delhi.

CLUSTER PAPER II

Suggested Readings:

1) S.K. Jain, Manual of Ethnobotany, Scientific Publishers, Jodhpur, 1995.

2) Glimpses of Indian. Ethnobotny, Oxford and I B H, New Delhi – 1981.

3) S.K. Jain (ed.) 1989. Methods and approaches in ethnobotany. Society of ethnobotanists, Lucknow, India.

4) S.K. Jain, 1990. Contributions of Indian ethnobotny.Scientific publishers, Jodhpur.

5) Colton C.M. 1997. Ethnobotany – Principles and applications. John Wiley and sons Chichester.

CLUSTER PAPER III

BOOKS FOR REFERENCE:

1. Wallis, T. E. 1946. Text book of Pharmacognosy, J & A Churchill Ltd. 2. Roseline, A. 2011. Pharmacognosy. MJP Publishers, Chennai.

2. Gurdeep Chatwal, 1980. Organic chemistry of natural productis. Vol.I.Himalaya Publishing house.

3. Kalsi, P. S. and Jagtap, S., 2012. Pharmaceutical medicinal and natural Product chemistry N.K. Mehra . Narosa Publishing House Pvt. Ltd. New Delhi.

4. Agarwal, O. P. 2002. Organic chemistry–Chemistry of organic natural products. Vol. II. Goel publishing house , Meerut.

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BOTANY	PNT - 501	w.e.f. 2020-21	B. Sc. (BZC),Aqua

SEMESTER - I **SKILL DEVELOPMENT COURSE** **Credits: 02**

Paper title: PLANT NURSERY

Total 30 hrs (02h/wk) Max Marks: 50

.....

Learning Outcomes:

On successful completion of this course students will be able to;

1. **Understand the importance of a plant nursery and basic infrastructure to establish it.**
2. **Explain the basic material, tools and techniques required for nursery.**
3. **Demonstrate expertise related to various practices in a nursery.**
4. **Comprehend knowledge and skills to get an employment or to become an entrepreneur in plant nursery sector.**

Syllabus:

Unit-1: Introduction to plant nursery **06 Hrs.**

1. Plant nursery: Definition, importance.
2. Different types of nurseries –on the basis of duration, plants produced, structure used.
3. Basic facilities for a nursery; layout and components of a good nursery.
4. Plant propagation structures in brief.
5. Bureau of Indian Standards (BIS-2008) related to nursery.

Unit- 2: Necessities for nursery **09 Hrs.**

1. Nursery beds – types and precautions to be taken during preparation.
2. Growing media, nursery tools and implements, and containers for plant nursery, in brief.
3. Seeds and other vegetative material used to raise nursery. In brief.
4. Outlines of vegetative propagation techniques to produce planting material.
5. Sowing methods of seeds and planting material.

Unit-3: Management of nursery **09 Hrs.**

1. Seasonal activities and routine operations in a nursery.
2. Nursery management – watering, weeding and nutrients; pests and diseases.
3. Common possible errors in nursery activities.
4. Economics of nursery development, pricing and record maintenance.
5. Online nursery information and sales systems.

Guide lines for paper setter: (PNT - 501C) w.e.f. 2020-21.

1. In **section A**: Unit I & Unit II must carry **THREE** questions and Unit III must carry **TWO** questions.
2. In **section B**: **TWO** question each from Unit I, II & III
3. See the following table and Model paper for marks distribution.
4. Please provide the scheme of valuation for the paper.
5. Question paper should be both in English and Telugu media.

Unit	Section - A		Section - B		Weightage in
	Questions	Marks	Questions	Marks	Marks
Unit – I	3		2		
		15		20	35
Unit - II	3		2		
		15		20	35
Unit – III	2		2		
		10		20	30
Max. Q & marks	8 (x 5) = 40		6 (x 10) = 50		(Total questions =14) Total marks =100
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	4		3		
	(4 X 5) = 20		(3 X 10) = 30		50

MODEL QUESTION PAPER

PLANT NURSERY

Time: 2 hrs **Max. Marks: 50**

SECTION- A **4x5 =20 M**

Answer any four questions. Each answer carries 5 marks

1. Importance of nursery
2. Components of a good nursery
3. Growing medium
4. Micro-propagation
5. Grafting
6. Nursery pests
7. Greenhouse
8. Record Management

SECTION B **3x10 = 30 M**

Answer any three questions. Each answer carries 10 marks

1. Describe different types of nursery?
2. Plant propagation structures in brief.
3. Describe the precautions to be taken during the preparation of a nursery bed?
4. Sowing methods of seeds and planting material.
5. Common possible errors in nursery activities?
6. Pricing and record maintenance of nursery management?

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CERTIFICATE COURSE

SEMESTER - III ***MUSHROOM CULTIVATION***

Total hours of teaching 30 hrs @ 4 hrs per week Max.Marks:50

==========

UNIT-1 **(**8 hrs)

1. Mushroom Cultivation- Introduction, Uses, Types of mushrooms.

2. Preparation of Mother Spawn in Saline bottle, sterilization.

3. Cultivation of milky mushrooms.

UNIT-2 (8 hrs)

4. Soil PH, Water, Soil sterilization, dark room, light room.

5. Controled room temperature, culture caring.

6. Diseases and their controlling methods.

UNIT-3 **(**8 hrs)

7. Storage and nutritional value.

8. Industrial edible mushrooms, poisonous mushrooms.

9. Importance and Medicinal value of mushrooms.

UNIT-4 **(**6 hrs)

10. Types of food prepared from mushrooms -

11. Marketing in India. Export value.

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CERTIFICATE COURSE

SEMESTER - III ***MUSHROOM CULTIVATION*** **Max.Marks:50**

Model paper

==========

SECTION-A

Answer any 5 of the following question **5x4=20M**

1.
2.
3.
4.
5.
6.

SECTION-B

Answer any 3 of the following question **3x10 =30M**

7.
8.
9.
10.
11.
12.

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2020-21

DEPARTMENT OF ZOOLOGY

MINUTES OF BOARD OF STUDIES

04-07-2020 (ODD SEMESTER)

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.00 AM on 04-07-2020 in the Department of Zoology.

Smt.D.A. KiranmayeeMembers — Presiding

Presents

1) D. Aruna kiranmayee (Smt. D.A.Kiranmayee.)	Chair person	Head, Department of Zoology, A.G&S.G.S Degree College of Vuyyuru-521165.
2) J. Naveena Lavanya Latha (Dr.J.N.Lavanya Latha.) 4/7/2020	University Nominee	Krishna University, Machilipatnam.
3) ……. (Dr.K.Daniel)	Academic Council Nominee	Head, Dept.of Zoology, JKC College, Guntur.
4) ……. (B.Elia)	Academic Council Nominee	Head, Dept.of Zoology, Govt.DegreeCollege, Pitapuram.
5). M. Lakshmi Priyanka. (kum.M.Lakshmi Priyanka.)	Member	A.G&S.G.S Degree College Vuyyuru-521165.
6) (B.Appala Naidu)	Industrialist	Asst. ProjectManager. RGCA
7). Ch. Chiranjeevi. (Ch.Chiranjeevi.)	Student Represent	P.hd –Research Scholar, Dept.ofBotany& Microbiology, Acharya Nagarjuna University, Guntur

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.00 AM on 04-07-2020 in the Department of Zoology.

Smt.D.A. Kiranmayee. ... Presiding

Members Present:

1) ..... Chair person Head, Department of Zoology,
A.G&S.G.SDegreeCollege of
(Smt. D.A.Kiranmayee.) Vuyyuru-521165.

2)..... University Nominee Dr. J.N.Lavanya Latha,
(Dr.J.N.Lavanya Latha.)Krishna University,
Machilipatnam.

3)..... Academic Council Head, Department of Zoology,
(Dr. K.Daniel.) Nominee JKC College,
Guntur,

4)..... Academic Council Head, Department of Zoology,
(B.Elia.) Nominee Gov. Degree College,
Pitapuram.

5)..... Member Lecturer in Zoology,
(kum.M.Lakshmi Priyanka.) A.G&S.G.S Degree College
Vuyyuru-521165.

6)..... Industrialist Asst. Project Manager,
(B. Appala Naidu.) RGCA
Manikonda.

7)..... Student Represent P.hd –Research Scholar,
(Ch.Chiranjeevi.) Dept.ofBotany& Microbiology,
Acharya Nagarjuna University,
Guntur.

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.00 AM on 04-07-2020 in the Department of Zoology.

Smt.D.A. Kiranmayee. ... Presiding

Members Present:

1) ..... Chair person Head, Department of Zoology,
A.G&S.G.SDegreeCollege of
(Smt. D.A.Kiranmayee.) Vuyyuru-521165.

2)..... University Nominee Dr. J.N.Lavanya Latha,
(Dr.J.N.Lavanya Latha.) Krishna University,
Machilipatnam.

3)..... Academic Council Head, Department of Zoology,
(Dr. K.Daniel.) Nominee JKC College,
Guntur,

4)..... Academic Council Head, Department of Zoology,
(Dr. B.Elia.) Nominee Gov. Degree College,
Pitapuram.

5)..... Member Lecturer in Zoology,
(kum.M.Lakshmi Priyanka.) A.G&S.G.S Degree College
Vuyyuru-521165.

6)..... Industrialist Asst. Project Manager,
(B. Appala Naidu.) RGCA
Manikonda.

7)..... Student Represent P.hd –Research Scholar,
(Ch.Chiranjeevi.) Dept.ofBotany& Microbiology,
Acharya Nagarjuna University,
Guntur.

Agenda for B.O.S Meeting.

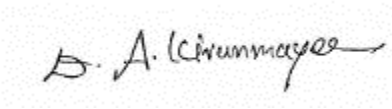
1. To recommend the syllabi (Theory & Practical), Model question paper for I Semester of I B.Sc (B.Z.C) for the academic year 2020 - 2021.

2. To recommend the syllabi (Theory & Practical), Model question paper for III Semester of II B.Sc (B.Z.C) for the academic year 2020 - 2021.

3. To recommend the syllabi (Theory & Practical), Model question paper for V Semester of IIIB.Sc (B.Z.C) for the academic year 2020 - 21

4. To recommend the Blue print for the semester end exam for I, III & V semester of I,II,III B.Sc (B.Z.C) for the academic year 2020 - 21.
5. To recommend the syllabus of Competitive Zoology as Unit VI in I and III semesters.
6. To recommend the syllabus of Certificate Course, Organic Farming to Science and Non-Science students
7. To recommend the teaching and evaluation methods to be followed under Autonomous statues.

8. Any other matter.



Chairman

RESOLUTIONS

1. It is resolved to implement the revised new syllabus (Theory & Practical), model question paper & guide lines to be followed as prescribed by APSCHE in ZoologyI semester of I B.Sc. (B.Z.C) under Choice Based Credit System (CBCS).
2. It is resolved to implement the same syllabi (Theory & Practical), model question paper & guide lines to be followed by the question papers under Choice Based Credit System (CBCS) for Zoology III Semester of II B.Sc. (B.Z.C) approved by the Academic Council of 2020 –21.

3. It is resolved to implement the same syllabi & model papers under Choice Based Credit System (CBCS) Setters of Zoology of V semester of III B.Sc. (B.Z.C) to be approved by the Academic Council of 2020-21.

4.It is resolved to continue the same Blue prints of I, III, &V SemestersofB.Sc Zoology for the Academic year 2020-21.

5. It is resolved to follow the syllabus of Competitive Zoology as Unit- VI in I, III Semesters for the Academic year 2020-2021.Questions from the VI-Unit will be given in IA-1, IA-II but not in semester end exams.
6. It is resolved to conduct Certificate course in Organic Farming to Science and Non- Science Students.
7. It is resolved to continue the following teaching & evaluation methods for the Academic year 2020-21.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of OHP and LCD projector to display on U boards etc; for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- **Internal Assessment Examination:**

- Out of maximum 100 marks in each paper for I, II, IIIB.Sc , 30 marks shall be allocated for internal assessment.
- Out of these 30 marks , 20 marks are allocated for announced tests (i.e . IA-1& IA-2). Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, 5 marks are allocated on the basis of candidate's percentage of attendance and remaining 5 marks are allocated for the assignment for I, II, III B.SC.
- There is no pass minimum for internal assessment for I, II, III B.Sc.

Semester – End Examination:

- The maximum mark for I, II, III B.Sc semester- End examination shall be 70 marks and duration of the examination shall be 3 hours. Even through the candidate is absent for two IA exams / obtain zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS"
- Semester – End examination shall be conducted in theory papers at the end of every semester, while in practical papers, these examinations are conducted at the end of I, III, & V semester for I, II & III B.Sc.
- Discussed and recommended for organizing Seminars, Guest lectures, Work – Shops to upgrade the Knowledge of students, for the approval of the Academic Council.

Chairman

A.G & S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

ZOOLOGY
Semester – I

Class: I B.Sc . PAPER-I w.e.f. 2020-2021
Credits : 3 (Code: Zoo-101C)
Title of the paper: Biology of Non – Chordates. Max.Marks : 70
60 hrs.(4hrs/week)

UNIT- I **10hrs.**

1.1: Whittaker's five kingdom concept and classification of Animal Kingdom.
1.2 General Characters and classification of protozoa up to classes with suitable examples
1.3: ***Phylum - Protozoa:*** Type study: *Elphidium*

UNIT-II16 hrs
Phylum Porifera
2.1 General characters and classification up to classes with suitable examples
2.2 Skelton in Sponges, Canal system in sponges
Phylum – Coelenterata
2.3 General characters and classification up to classes with suitable examples
2.4 type study: Obelia – Morphology, Structure of polyp & Medusa
2.5 Polymorphism in coelenterates
2.6 Corals and coral reefs
UNIT-III10 hrs
Phylum Platyhelminthes
3.1 General characters and classification up to classes with suitable examples
3.2 Life cycle and pathogen city of Fasciola hepatica
3.3 Parasitic Adaptations in helminthes Phylum Nemathelminthes
3.4. Life cycle and pathogen city of Ascarislumbricoides
UNIT-IV *15hrs*
Phylum Annelida
4.1 General characters and classification up to classes with suitable examples
4.2 Evolution of Coelom and Coelomoducts
4.3 Vermiculture - Scope, significance, earthworm species, processing, Vermicompost, economic importance of vermicompost
Phylum Arthropoda
4.4 Vision and respiration in Arthropoda
4.5Peripatus - Structure and affinities
UNIT- V
Phylum Mollusca *9 hrs*
5.1 General characters and classification up to classes with suitable examples
5.2 Pearl formation in Pelecypoda
5.3 Water vascular system in star fish
5.4 Larval forms of Echinodermata
PhylumHemichordata
5.5Balanoglossus - Structure and affinities
UNIT- VI – **COMPETITIVE ZOOLOGY**
6.1: Cells-Cell Definition- Discovery of cells- Characteristics of cells- Types of cells.
6.2:Cell Structure-Cell Organelles and Functions. Cell Theory.
6.3Defference between Prokaryotic and Eukaryotic Cells

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Semester – I

(Model question paper) *w.e.f. 2020-2021* ***Title of the paper:***

Biology of Non – Chordates. Code – Zoo-101C
Time: 3hrs.
max.marks: 70

……

Section – A

Answer any **four** questions. Each question carries **five** marks.
Draw neat labeled diagrams wherever necessary. ***4 x 5= 20.***

1.Spicules in Sycon.

2. Structure of medusa in obelia.

3. Life history of Ancylostomaduodenale .

4. Coelomoducts in Annelida .

5. Significance of Vermiculture .

6. Affinities of Peripatus .

7. Structure of Balanoglossus .

8. Bipinnaria Larva.

Section – B

Answer any **five** questions. Each question carries **Ten** marks.

Draw neat labeled diagrams wherever necessary.***5 x 10 =50.***

9.Elphidium shows alternation of generations in its life cycle – discuss.

10.Write an account of canal system in Porifera.

11.Describe briefly the phenomenon of polymorphism in Coelenterates.

12. Describe the life history of Fasciola hepatica.

13.Describe the excretory system in leech.

14.Explain the respiratory system in prawn.

15. Explain the process of pearl formation in pelecypoda.

16.Describe the Water vascular system in Starfish.

****

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Semester - I

Guide lines to the Paper Setter.

Title of the paper: Biology of Non – Chordates. Code – Zoo-101C

Time: 3hrs. ***Max. Marks: 70.***

1. Answer any **FOUR** questions out of eight in Section – A. Each question carries **five** marks.4x5 = 20M.

2. Answer any **Five** questions out of eight in Section – B. Each question carries **Ten** marks. 5x10= 50M.

	Section	**UNIT-I** (Protozoa)	**UNIT-II** Porifera-Coelenterata)	**UNIT-III** platyhelminthes)	**UNIT-IV** Annelida-Arthropoda**)**	**UNIT-V** Mollusca Echinodermata
5 Marks Questions	**A**	**2**	**2**	**2**	**2**	**2**
10 Marks Questions	**B**	**1**	**2**	**1**	**2**	**2**
Weightage		**20**	**30**	**20**	**30**	**30**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165, KRISHNA Dt.,A.P. (AUTONOMOUS)

ZOOLOGY

PRACTICAL - I

w.e.f. 2020-2021

.Code :Zoo- 101P ***MAX.MARKS : 50.***

(2hrs/week)

Biology of non-chordates

1.INVERTEBRATES : Observation of the following slides/ specimens / models.

Protozoa –.Amoeba, Paramoecium, Paramoecium Binary fission and Conjugation, Vorticella,

Entamoebahistolytica, Plasmodium vivax

Porifera -Sycon, Spongilla, Euspongia, Sycon- T.S & L.S, Spicules, Gemmule

Coelenterata - Colony & Medusa, Aurelia, Physalia, Velella, Corallium, Gorgonia, Pennatulav

Platyhelminthes -Planaria, Fasciola hepatica, Fasciolalarval forms – Miracidium, Redia, Cercaria, Echinococcusgranulosus, Taeniasolium, Schistosomahaematobiumvii.

Nemathelminthes - Ascaris(Male & Female), Drancunculus, Ancylostoma, Wuchereria

Annelida -Nereis, Aphrodite, Chaetopteurs, Hirudinaria, Trochophore larva

Arthropoda - : Cancer, Palaemon, Scorpion, Scolopendra, Sacculina, Limulus, Peripatus, Larvae - Nauplius, Mysis, Zoea, Mouth parts of male &female Anopheles and Culex, Mouthparts of Housefly and Butterfly. xiii.

Mollusca - Chiton, Pila, Unio, Pteredo, Murex, Sepia, Loligo, Octopus, Nautilus, Glochidium

Echinodermata -Asterias, Ophiothrix, Echinus, Clypeaster, Cucumaria, Antedon, Bipinnaria larva

.**Hemichordata**- Balanoglossus, Tornaria larva.

Demonstration of dissection / dissected / Virtual Dissections.

1. Prawn - Digestive system .
2. Prawn - Appendages,
3. Prawn - Nervous system,
4. Mounting of statocyst
6. Insect Mouth Parts.

- **Compulsory one species to be adopted for demonstration only by the faculty.**
- **Computer Aided Techniques as per U.G.C Guidelines.**
- **Laboratory record work shall be submitted at the time of Practical Examination.**

A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165

EXTERNAL PRACTICAL- I
w.e.f. 2020-2021.
(Animal Diversity of Invertebrates) (2hrs/week)
MODEL QUESTION PAPER -ICode: ZOO-101P

Time: 3 hrs. **Max.marks: 25m.**

I.	Draw neat labeled diagram of Digestive system Leech.	6M.
II .	Draw neat labeled diagram of Radula of Pila.	4M.
III.	Spotters: Identify, draw labeled diagram & write notes on A, B, C, D	4X3=12M
IV.	Viva.	3M
	TOTAL: ----------	25M.

Guide lines for the practical Examiners

I. ***List of dissections*** : (8marks for diagram & 2 marks for labeling)
Leech/Prawn/Scorpion/Crab- Digestive system.
Prawn – Appendages.
Prawn / Scorpion /Crab- Nervous system
Pila / Unio – Digestive system.

II.Mounting of Statocyst / Mounting of Radula. (Mounting 4 marks, labeled diagram 1 marks)

III.Spotters:1Mark for identification, 1 Mark for labeled diagram & 3Mark for notes for each spotter.

Invertebrates: 4 specimens / slides / models.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165
INTERNAL PRACTICAL- I

w.e.f. 2020-2021.

(2 hrs/week).

(Animal Diversity of Invertebrates)*Code: ZOO-101P.*
MODEL QUESTION PAPER -I
Max.marks:25M.
Time: 3hrs.

1.	Attendance ----------	05M.
2.	Record ----------10M.	
3.	Field note book. ----------	05M
4.	Project (Within the syllabus)----------	05M.

Total ------ 25M.

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Reference Books :-

1. Modern Text Book of Zoology - vertebrates…….. R.L.Kotpal

2. A Text Book Zoology ……. EkambarnathAyya

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ADUSUMILLI GOPALKRISHNAIAH & SUGARCANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU- 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

SEMESTER - III

w.e.f. - 2018 – 2019.

Class: II B.Sc (B.Z.C) ***Paper Code: ZOO -301C*** **60 Hrs (4hrs/ week)**

Max.Marks: 70

Credits: 3 **Title of the Paper :Cytology, Genetics and Evolution.**

Unit – I 10 Hrs

1.1Cytology - I :-Electron microscopic structure of cell .

1.2 Plasma membrane - Fluid mosaic model, Transport functions of plasma membrane (Active &Passive)

Unit – II 15 Hrs

2.1 Cell Organelles :- Stricture and functions of Endoplasmic reticulum, Golgi body, Ribosome's, Lysosomes, Mitochondria.

2.2 DNA: Watson & Crick model , Semi Conservative Replication.

2.3 RNA - Structure, types & functions of RNA.

2.4 Chromosomes - Structure, types &functions, Giant Chromosomes (lamp brush & Polytene)

Unit – III 10 Hrs

3.1 Genetics-I:- Mendel's Laws of Inheritance, Incomplete dominance and co-dominance

3.2 Lethal alleles, Epistasis , Linkage and crossing over.

Unit – IV 15 Hrs

4.1 Genetics – II :- Sex determination - Genic balance theory / Bridges theory, Barr bodies.

4.2 Sex linked inheritance.

4.3 Extra chromosomal inheritance (Kappa particles in Paramecium)

4.4 Blood group inheritance.

Unit – V 10 Hrs

5.1.Evolution:- Origin of life,. Hardy -Weinberg Equilibrium, Lamarckism ,Darwinism, Neo – Darwinism

5.2 Isolation, Speciation (Allopatric and Sympatric).

Unit – VI (*COMPETITIVE ZOOLOGY)*

6.1: Anatomy- Types of Anatomy- Classification of Anatomy

6.2: Application of Anatomy, Application of Gross Anatomy.

6.3: Physiology- Human Physiology- Endocrine system-Hormones- Mechanisms of Hormone Action.

6.4: Nervous system- nerve Cells- Organization of Nervous System Structurally.

6.5: White Blood Cells.

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A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165,

Krishna Dt. A.P. (Autonomous)

Semester - III (Model question paper) ***w.e.f.2018-2019***

Title of the paper: Cytology, Genetic &Evolution.Code – Zoo-301C
Time: 3hrs.
Max. Marks: 70

Section – A4 x 5 = 20.

Answer any **Four** questions. Each question carries **Five** marks. Draw neat labeled diagrams wherever necessary.

1.Cytoplasam.

2.Fluid mosaic model.

3.Golgi body.

4.Mitochondria.

5.Crossing Over.

6. Linkage.

7.Barr bodies.

8.Hardy- Weinberg law.

Section – B ***5 x 10 =50.***

Answer any **five** questions. Each question carries **Ten** marks. Draw neat labeled diagrams wherever necessary.

9.Describe the ultra structure of Eukaryotic cell?

10.Give an account of structure and functions of Endoplasmic reticulum.

11.Describe the structure and functions of plasma membrane.

12.Explain the structure and types of chromosomes?

13.Describe the Mendel's laws of Inheritance?

.

14.Write an essay on Epistasis.

15.Explain sex determination with the help of Balance theory.

16. Write an essay on Isolation?

A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165, Krishna Dt. A.P. (Autonomous)

Semester - III

Guide lines to the Paper Setter. ***W.e.f. 2020-2021Title of the paper:Cytology, Genetic & Evolution*** ***Code – Zoo-301C***

Time: 3hrs. ***Max.marks:70***

Max. Marks: 75m.

1. Answer any **FOUR** questions out of eight in Section .A. Each question carries**FIVE** marks. 4x5=20m.

2. Answer any**FIVE** questions out of eight in Section – B. Each question carries **TEN** marks. 5x10= 50M.

	PART	UNIT-I (Cytology I)	UNIT-II (Cell Organelles)	UNIT-III (Genetics-I)	UNIT-IV (Genetics-II)	UNIT-V (Evolution)
5 Marks Questions	**A**	**1**	**2**	**1**	**2**	**2**
10 Marks Questions	**B**	**1**	**2**	**1**	**2**	**2**
Weightage		**15**	**30**	**15**	**30**	**30**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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Reference Books :-

1.A Test Book of zoology: Vikram modern series: E.Chakrapani.
2. Cytology, Genetics &Ecology :P.S.Verma&V.K.Agarwal.
3. Common core –A test Book of Zoology: Sri Vikas Publication : C. Gopal.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY PRACTICAL SYLLABUS

PAPER – III

Class: II B.Sc
60 Hours/Week : 2 **Code : ZOO -301P C**
Credits: 2 **Max.Marks:50**
Paper Title: Cytology, Genetics & Evolution.

I. Cytology

1. Preparation of temporary slides of Mitotic divisions with onion root tips
2. Observation of various stages of Mitosis and Meiosis with prepared slides
3. Mounting of salivary gland chromosomes of *Chironomous*

II. Genetics

1. Study of Mendelian inheritance using suitable examples
2. Study of linkage recombination, gene mapping using the data
3. Study of human karyotypes

III. Evolution

1. Study of fossil evidences
2. Study of homology and analogy from suitable specimens and pictures
3. Phylogeny of horse with pictures
4. Darwin's finches (pictures)
5. Visit to natural history museum and submission of report

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

PAPER – III

(***Cytology, Genetics & Evolution***)

*Model Question paper (External)*Max.Marks: 25 M.

Paper Code: ZOO-301C

I.Cytology

1.Identify, draw neat labeled diagram & notes of the following stages. 2x2 ½= 5M.

A & B

II. Genetics

1.Genetics Problem. 5M.

2.Identify the following Chromosomes & Comment. 2x2 ½= 5M.

A & B

III. Evolution

1.Identify the given pictures and write the Comment. 2x2 ½= 5M

A & B

2.Identify the given pictures and Comment. 2x2 ½= 5M

A & B

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165

ZOOLOGY PRACTICAL -III

(INTERNAL)

(2hrs/week).

(***Cytology, Genetics & Evolution)***

Code: ZOO-301P.

Max.marks:25M.

Time: 3hrs.

1. Attendance ---------- 5M.
2. Record ---------- 10M.
3. Field trip & Field note book ----------10M.

Total ------ 25M.

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PAPER – III

Guide lines for the practical Examiner

Class: II B.Z.C
Paper Title: (Cytology, Genetics & Evolution) w.e.f.2020-21.
Max.Marks: 25 M.

Paper Code: ZOO-301C

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I.Cytology

1. Slide A from Mitosis & Slide B Meiosis. 2x2 ½= 5M.
   ($^1/_2$ mark for identification, 1 mark for labeled diagram & 1 mark for comments)

II.Genetics

2. Checker board 2M.
   Explanation 3M.
3. Identify & Comment on A& B (From Chromosomes). 2x2 ½= 5M
   A-Identification – 1 M, Comment – $1^1/_2$ M

   B-Identification – 1 M, Comment – $1^1/_2$ M

III.Evolution

4. Identify & Comment on A&B(A- fossil evidence, B – Homology & Analogy) 2x2 ½= 5M

   A-Identification – 1 M, Comment – $1^1/_2$ M

   B-Identification – 1 M, Comment – $1^1/_2$ M
5. Identify & Comment on A& B (A- Phylogeny of Horse, B – Darwin's Finches) 2x2 ½= 5M

   A-Identification – 1 M, Comment – $1^1/_2$ M

   B-Identification – 1 M, Comment – $1^1/_2$ M

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SEMESTER - V (CBCS)

(Zoology paper-V)

Class: III B.Sc (B.Z.C) w.e.f.- 2017-2018.

Paper Code : ZOO -501C

60 Hrs. (4hrs/week) Max.Marks: 70 Title of the Paper : **Animal Biotechnology.**

Unit 1:Tools of Recombinant DNA technology - Enzymes and Vectors 15 Hrs.

1.1. Restriction modification systems : Types I, II and III- Nomenclature, Applications of Type II restriction enzymes in genetic engineering ,DNA polymerases, transferase, kinases and phosphatases,and DNA ligases

1.2 Cloning Vectors: : Properties of Cloning Vectors Plasmid vectors:pBR and pUC 18, Bacteriophage and, Cosmids.Artificial Chromosome Vectors: BACs, YACs,

Unit 2: Techniques of Recombinant DNA technology 15 Hrs

2.1 Cloning: Procedure of gene cloning, Use of linkers and adaptors.Microinjection, electroporation, biolisticmethod (gene gun). PCR:- Basics of PCR,Principle and Procedure of PCR.

2.2 DNA Sequencing: Sanger's method of DNA sequencing- traditional and automated sequencing.

2.3 Southern, Northern and Western blotting. DNA finger printing,

UNIT 3 Animal Cell Technology 10 Hrs.

3.1 Cell culture media: Natural and Synthetic, Types Cell cultures-: primary culture, secondary culture. Continuous cell lines , Established Cell lines (common examples such as MRC, HeLa,CHO, BHK,)

3.2 Cryopreservation of cultures, Hybridoma Technology:- Cell fusion, Production of Monoclonal antibodies (mAb), Applications of mAb

3.3.Stem cells: Types of stem cells- Embryonic and Adult Stem Cells, Diabetes and Parkinson's diseases.

Unit 4: Reproductive Technologies & Transgenic Animals 10 Hrs

4.1 Manipulation of reproduction in animals, Artificial Insemination, *In vitro* fertilization.

4.2 Super ovulation, Embryo transfer, Embryo cloning.

4.3 Transgenic Animals- Production of Transgenic Animals- sheep,fish.

Unit 5: Applied Biotechnology 10 Hrs.

5.1Industry: Fermentation- Different types of Fermentation. Submerged & Solid state, batch, Fed batch & Continuous (Short notes only)

5.2 Downstream processing - Filtration, centrifugation, chromatography, spray drying ,

5.3Fisheries : Polyploidy in fishes

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A.G& S.G.S.DEGREECOLLEGE OF ARTS & SCIENCE,VUYYURU – 521165,KRISHNA Dt.,A.P. (AUTONOMOUS)

SEMESTER-V (Model Question paper)

w.e.f.- 2017-201

Time : 3 hrs

Paper Title: ***Animal Biotechnology.***

Paper Code : 501C

Max.Marks:70

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Part – A

Answer **any FOUR** questions out of eight in Part - A . Each question carries five marks. **4 X 5 = 25**

Part – B

1.Ligases

2.YAC

3.Southern Blotting

4.DNA Fingerprinting

5.Applications of mAb

6.Polyploidy in fishes

7.Invitro fertilization

8.Chromatography

Part – B

Answer **any FIVE** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

9. Write an essay on cloning vectors.

10. Explain the role of Type II Restriction enzymes in genetic engineering.

11. Define gene cloning .Describe the procedure of gene cloning in detail.

12. What is PCR. Briefly describe various steps of PCR.

13. Define Stem Cell Technology ? Briefly describe about it.

14. Write in detail about the transgenic animals.

15. Write an essay on different types of fermentation.

16. Briefly describe the technology of super ovulation and Embryo transfer in cattle's and discuss their applications and limitations.

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SEMESTER-V

Time :3 hrs **Max.Marks:70**

Guide lines to the paper setter

Paper Title : Animal Biotechnology **Paper Code : 501C**

Note : 1.Answer **any FOUR** questions out of eight in Part-A . Each question carries five marks.4X 5 = 20M.

2. Answer **anyFIVE** questions out of eight in Part-B . Each question carries 10 marks. 5 X 10 = 50M.

	PART	Unit – I	Unit – II	Unit – III	Unit – IV	Unit – V
5 Marks Questions	**A**	**2**	**2**	**1**	**1**	**2**
10 Marks Questions	**B**	**2**	**2**	**1**	**2**	**1**
Weightage		**30**	**30**	**15**	**25**	**20**

Note: 1. Please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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Reference Books :-

1. Brown TA. (2010). Gene Cloning and DNA Analysis. 6th edition. Blackwell Publishing , Oxford,U.K

2. Clark DP and Pazdernik NJ. (2009). Biotechnology: Applying the Genetic Revolution. ElsevierAcademic Press, USA

3. Primrose SB and Twyman RM. (2006). Principles of Gene Manipulation and Genomics, 7th edition. Blackwell Publishing, Oxford, U.K.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE,VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY PRACTICAL SYLLABUS

PAPER - V

Periods : 30Code: ZOO-501P
Credits :2Paper Title : Animal Biotechnology
Max.Marks:50 .

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1. Genomic DNA isolation from *E. coli.*

2. Plasmid DNA isolation (pUC 18/19) from *E. coli.*

3. Study the following techniques through photographs.

a. Southern blotting.

b. Western blotting.

c. DNA sequencing (Sanger's method)

d. DNA finger printing

4. PCR (demonstration) on site or of site demonstration.

5. Project report on animal cell culture.

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A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE,VUYYURU - 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

Practical - V
Animal Biotechnology Max. Marks : 25
Model Question Paper (External) Paper Code : ZOO-501P

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1. Identify the following Genomic DNA isolation from *E. coli.*5m

2. Identify the following Plasmid DNA isolation (pUC 18/19) from *E. coli* . 5m

3. Study the following techniques given on photographs & Write notes on. 2x5=10
A & B
4. PCR (demonstration) on site or of site demonstration. 5m

Total: 25m

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(AUTONOMOUS)

Guide lines for the Practical Examiners.

Class: III B.Z.C
Paper Title: Animal Biotechnology. w.e.f.2017-18
Max.Marks: 25 M.

Paper Code: ZOO-501C

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1. Identify the following Genomic DNA isolation from *E. coli.*
(5 marks for Procedure)

2. Identify the following Plasmid DNA isolation (pUC 18/19) from *E. coli* .
(5 marks for Procedure)

3. Study the following techniques given on photographs & Write notes on A & B.
(1 mark for identification & 4 marks for diagram and notes, for each photographs)

4. PCR (demonstration) on site or of site demonstration.
(5 marks for PCR demonstration)

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A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE,VUYYURU - 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

Practical – V
Animal Biotechnology *Max. Marks : 25*
Model Question Paper (Internal) *Paper Code : ZOO-501P*

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1. Attendance	--	5 M
2. Record	--	10M
3. Field trip & Field note book	--	10M

Total -- 25M

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SEMESTER - V

(Zoology paper-VI)

Class: III B.Sc (B.Z.C) w.e.f.-2017 -18

Paper Code : ZOO -502C

60 Hrs(6hrs/ week) External : 70Credits :3

Title of the Paper :**Animal Husbandry**.

UNIT – I :10 Hours

1.1 General introduction to poultry farming, Principles of poultry housing. Poultry houses.

1.2 Systems of poultry farming.

1.3 Management of chicks, growers, layers, and Broilers.

UNIT – II: 10 Hours

2.1. Poultry feed management – Principles of feeding. Nutrient requirements for different stages of layers and broilers.

2.2. Methods of feeding- Whole grain feeding system, Grain and mash method, All mash method, Pellet feeding.

2.3. Poultry diseases – viral, bacterial, fungal and parasitic (two each); symptoms, control and management.

UNIT – III: 10 Hours

3.1 Selection, care and handling of hatching eggs, Egg testing.

3.2 Methods of hatching.

3.3 Brooding and rearing, Sexing of chicks.

UNIT- IV: 20 Hours

4.1 Breeds of Dairy Cattle and Buffaloes – Definition of breed; Classification of Indian Cattle breeds, exotic breeds and Indian buffalo breeds.

4.2 Systems of inbreeding and crossbreeding.

4.3 Housing of dairy animals – Selection of site for dairy farm; systems of housing – loose, housing system. Conventional dairy barn

UNIT - V: 10 Hours

5.1 Care and management of dairy animals - Care and management of calf, heifer, milk animal, dry and pregnant animal, bulls and bullocks.

5.2 Cleaning and sanitation of programme. Records to be maintained in a dairy farm.

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SEMESTER-V (Model Question paper)

Time : 3 hrsPaper Code : Zoo-502C
Paper Title : Animal Husbandry Max.Marks:70

Part – A

Answer **any FOUR** questions out of eight in Part - A . Each question carries five marks. **4 X 5 = 25**

1. Principles of poultry farming.
2. Chick management.
3. Poultry feed management .
4. Marek's disease.
5. Egg testing (Candle test)
6. Cleaning and sanitation of Dairy farm.
7. Milk record register
8. Loose housing system

Part – B

Answer **any five** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

9. Write an essay on systems of poultry farming

10 .Write an essay on management of Broilers

11. Write an essay on symptoms control and management of two viral and bacterial diseases.

12. Write an essay on methods of feeding in Poultry

13. Write an essay on different methods of hatching eggs

14. Give an account of breeds of Indian Cows

15. Explain the vaccination programme in Cattle

16. write an essay on care and management of Calf, heifer and milk animals

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(AUTONOMOUS)

SEMESTER-V

Time :3 hrs **Max.Marks:70**

Guide lines to the paper setter

Paper Title : Animal Husbandry. **Paper Code : 502C**

Note : 1. Answer **any FOUR** questions out of eight in Part-A . Each question carries five marks.4 X 5 = 25M.

2. Answer **any five** questions out of eight in Part-B . Each question carries 10 marks. 5 X 10 = 50M.

	PART	Unit – I	Unit – II	Unit – III	Unit – IV	Unit – V
5 Marks Questions	**A**	**2**	**2**	**1**	**2**	**1**
10 Marks Questions	**B**	**2**	**2**	**1**	**2**	**1**
Weightage		**30**	**30**	**15**	**30**	**15**

Note: 1. Please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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Text Books :-

1. Animal Husbandry: ---- Technical Test paper.
2. Poultry- Technical Revised Common Core .
3. Animal Husbandry --- Dr.K.Kondaiah, A.V.N.Gupta.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE,VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

ZOOLOGY PRACTICAL SYLLABUS

Period : 30 PAPER – VICredits :2 Paper Title :
Animal HusbandryPaper Code : Zoo-502P
Max.Marks:50

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1. Study of various breeds of layers and broilers (photographs)

2. Identification of disease causing organisms in poultry birds (as per theory)

3. Study of the anatomy of a poultry bird by way of dissecting a bird. (Demonstration)

4. Study of various activities in a poultry farm (layers and broilers) and submission of a report.

5. Study of various breeds of cattle (photographs/microfilms)

6. Study of various activities carried out in a dairy farm and submission of a report.

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A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE,VUYYURU - 521165, KRISHNA Dt., A.P. (A)
Practical - VI
Animal HusbandryMax. Marks : 50

Model Question Paper (External) *Paper Code : ZOO-502P*

1. Study of various breeds of layers and broilers (photographs) $2X2^{1}/_{2}$=5M
A & B

2. Identification of disease causing organisms in poultry birds (as per theory) $2X2^{1}/_{2}$=5M
A & B

3. Study of the anatomy of a poultry bird by way of dissecting a bird. (Demonstration) 5M

4. Study of various breeds of cattle (photographs/microfilms) 2X5=10M

A &B

. Total -- 25M

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(AUTONOMOUS)

Guide lines for the Practical Examiners. Max.Marks: 25m
Class: III B.Z.C Paper Code : ZOO-502C
Paper Title: (Animal Husbandry)

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1. Identify and comment on A & B (Charts / Photographs).
(Identification - $^{1}/_{2}$ mark & Comments -2m)
2. Identifyand comment on A & B (Charts / Photographs
(Identification - $^{1}/_{2}$ mark & Comments -2m)

3. Demonstration : (4 marks for diagram & 1 marks for labeling)

4. Identify and comment on A & B (Photographs/ microfilms).
(Identification -1 mark & Comments -4m)

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A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE,VUYYURU - 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

Practical - V
(Animal Husbandry) *Max. Marks : 50*

Model Question Paper (Internal) *Paper Code : ZOO-502P*

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1. Attendance	--	5 M
2. Record	--	10M
3. Field trip & Field note book (Any one)	--	10M

Total -- 25M

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ADUSUMILLI GOPALAKRISHNAIAH & SUGAR CANE GROWERS SIDDHARTHA DEGRE COLLEGE OF ARTS & SCIENCE, VUYYURU-

(Autonomous)

AccreditedbyNAACwith"A"Grade

2020-21

DEPARTMENT OF ZOOLOGY

MINUTES OF BOARD OF STUDIES

29-03-2021 (EVEN SEMESTER)

Minutes of the meeting of Board of studies in Zoology for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru held at 3.00 PM on 29-03-2021 in the Department of Zoology.

Smt.D.A. Kiranmayee. ... Presiding

Members Present:

1)	(Smt. D.A.Kiranmayee)	**Chairperson**	Head, Dept.of Zoology, AG & SG S Degree College, Vuyyuru.
2)	(Dr.J.N.Lavanya Latha)	**University Nominee**	Professor, Dept. of Bio-Tech., Krishna University, Machilipatnam.
3)	(Dr. K.Daniel)	**Academic Council Nominee**	Head, Dept.of Zoology, JKC College, Guntur.
4)	(Dr.B. Elia)	**Academic Council Nominee**	Head, Dept.of Zoology, Govt. Degree College, Pitapuram.
5)	(Ms.M.Lakshmi Priyanka)	**Member**	Lecturer, Dept.of Zoology, AG & SG S Degree College, Vuyyuru.
6)	(Smt. K.Padmaja)	**Member**	Lecturer, Dept.of Zoology, AG & SG S Degree College, Vuyyuru.
7)	(B.Appala Naidu)	**Industrialist**	Asst. Project Manager, RGCA, Manikonda.
8)	(Ch.Chiranjeevi)	**Student Represent**	Ph.D, Research Scholor, Dept.of Botany & Microbiology, Acharya Nagarjuna University, Guntur

Agenda for B.O.S Meeting.

1. To recommend the syllabi (Theory & Practical), Model question paper & Guide lines for Semester II of I B.Sc (BZC) in the academic year 2020-21.

2. To recommend the syllabi (Theory & Practical), Model question paper &Guide lines to the Paper setter for IV Semester of II B.Sc (BZC) for the academic year 2020-21.

3. To recommend the syllabi (Theory & Practical), Model question paper &Guide lines to the Paper setter for VI Semester of III B.Sc (BZC) for the academic year 2020-21.

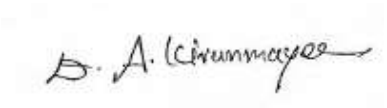
4. To discuss to the syllabus of Elective & Clusters in VI semester for the academic year 2020-21.

5. To recommend the syllabi of Competitive Zoology as Unit- VI in II, IV Semesters for the Academic year 2020-2021.

6. To recommend the teaching and evaluation methods to be followed under Autonomous statues.

7 To recommend a Certificate course – Organic farming for II year students in this academic year of 2020-2021.

8. Any other matter.



Chairman

RESOLUTIONS

1.It is resolved to implement the new syllabi (Theory & Practical) as prescribed by APSCHEforZoology II semester of I B.Sc. (B.Z.C) under Choice Based Credit System (CBCS).

2.It is resolved to implement the changed syllabi in Zoology of IV Semester of II B.Sc. (B.Z.C) according to the suggestions of BOS members. In IV-unit water, Oxygen and CO2 are added in Abiotic factors of Ecosystem. In the V unit Competition and Predation are added. The model question paper & guide lines to be followed by the question paper setters are approved.

3. It is resolved to follow the same syllabi & model papers under Choice Based Credit System (CBCS) of Zoology of VI semester of III B.Sc. (B.Z.C) approved by the Academic Council of 2020 -21.

4. It is resolved to follow Elective-A (Immunology) and Cluster –B (Aquaculture) in VI Semester from the Academic year 2020-21.

5. It is resolved to continue the same Blue prints of II, IV & VI Semesters of B.Sc Zoology for the Academic year 2020-21

.6. It is resolved to follow the syllabus of Competitive Aquaculture as Unit- VI in II, IV Semesters for the Academic year 2020-2021.Questions from the VI-Unit will be given in IA-1, IA-II but not in semester end exams.

7. It is resolved to implement certificate course in Organic Farming for II Year students.

8 It is resolved to continue the following teaching & evaluation methods for the Academic year 2019-20.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of OHP and LCD projector to display on U boards etc; for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) and Semester Examinations (SE).

(For the Batch of Students Admitted from 2019-2020– UG)

Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50.
- Each IA written examination is of $1^{1/2}$ hour's duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /ppt/ Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and depend his/her presentation. For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There is no passing minimum for IA.

Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'
- The maximum marks for each Paper shall be 100.

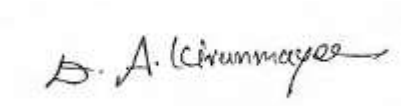
Evaluation of a student is done by the following procedure:

- ***Internal Assessment Examinations:***

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50.
- Each IA written examination is of $1^{1/2}$ hour's duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /ppt/ Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and depend his/her presentation. For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There is no passing minimum for IA.

II. Semester-End Examinations:

- The maximum marks for II B.Sc Semester-End examination shall be 70 marks and duration of the examination shall be 3 Hours.
- The maximum marks for IV B.Sc Semester-End examinations shall be 70 marks and duration of the examination shall be 3 Hours.
- The maximum marks for III B.Sc Semester-End examinations shall be 70 marks and duration of the examination shall be 3 Hours.
- Semester-End examinations shall be conducted in theory papers at the end of every semester while in practical papers, these examinations are conducted at end of II, IV & VI semesters.
- Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.



Chairman.

ADUSUMILLI GOPALKRISHNAIAH & SUGARCANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU - 521165, KRISHNS Dt., A.P.

ZOOLOGY
SEMESTER -II

Class: I B.Scw.e.f. - 2020 - 21
No. of Hours per week: 4
Title of the Paper: -**Animal Diversity – Biology of Chordates**Code: ZOO -201 C
Credits: 3 Max.Marks: 70

UNIT – I15hrs

1.1 General characters and classification of Chordata up toclasses
1.2 Protochordata- Salient features of Cephalochordata, Affinities ofCephalochordata.
1.3 Salient features ofUrochordata
1.4 Structure and life history of*Herdmania*
1.5 Retrogressive metamorphosis –Process and Significance

UNIT – II 15hrs

2.1 Cyclostomata, General characters, Comparison of *Petromyzon* and*Myxine*
2.2 Pisces: General characters ofFishes
2.3 Scoliodon: External features, Digestive system, Respiratory system, Structure and function of Heart, Structure and functions of theBrain.
2.4 Migration inFishes
2.5 Types ofScales
2.6 Dipnoi

UNIT – III 10 hrs

3.1General characters ofAmphibia
3.2Classification of Amphibiaup to orders withexamples.
3.3 *Ranahexadactyla*: External features, Digestive system, Respiratory system, Structure and function of Heart,structure and functions of theBrain
3.4Reptilia: General characters of Reptilia, Classification of Reptiliaupto orders withexamples
3.5Calotes:External features, Digestive system, Respiratory system, Structure and function of Heart, structureand function ofBrain
3.6Identification of Poisonous snakes and Skull inreptiles

UNIT – IV 12 hrs

4.1Aves General characters ofAves
4.2 Columbalivia: External features, Digestive system, Respiratory system, Structure and function of Heart, structure and function ofBrain
4.3 Migration inBirds
4.4 Flight adaptation inbirds

UNIT – V 8 hrs

5.1 General characters ofMammalia
5.2 Classification of Mammalia upto sub - classes withexamples
5.3 Comparision of Prototherians, Metatherians andEutherians
5.4Dentition inmammals

UNIT – VI – COMPETITIVE ZOOLOGY
6.1. Basic Food Substances.
6.2. Glossary Biology
6.3 Zoology Evolution Facts.

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A.G. &S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165, Krishna Dt. A.P. (Autonomous)

Semester - II **Model question paper**

Title of the paper: Animal Diversity – Biology of Chordates

Code – Zoo-201C **Max. Marks: 70.**

Time: 3hrs.

Section – A ***4 x 5= 20.***

Answer any **four** questions. Each question carries **five** marks. Draw neat labeled diagrams wherever necessary.

1. Structure of Branchiostoma
2. Migration in Fishes.
3. Arterial system in Scoliodon.
4. Parental care in Amphibians.
5. Structure of heart in Calotes.
6. Types of feathers in Birds.
7. Flight adaptations in Birds

.

8. Prototheria.

Section – B ***5 x 10 =50.***

Answer any **five** questions. Each question carries **Ten** marks. Draw neat labeled diagrams wherever necessary.

9. What is Retrogressive Meta morphosis? Describe this process in life history of Herdmania?
10. Differentiate between Petromyzon and Myxine?
11. Give an account of Dipnoi fishes.
12. Describe the structure and working of heart in Rana?
13. Give an account of brain of Calotes?
14. Write an essay on migration in birds?
15. Explain the respiratory system of Columba livia?
16. Write an essay on Dentition in mammals?

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A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru– 521165, Krishna Dt. A.P. (Autonomous)

Semester -II

Guide lines to the Paper Setter.

Title of the paper: Animal Diversity – Biology of Chordates **Max. Marks: 70**

Time: 3hrsCode – Zoo-201C

1. Answer any **FOUR** questions out of eight in Section – A. Each question carries **fIVE** marks.4x5 = 20M

2. Answer any **five** questions out of eight in Section – B. Each question carries **Ten** marks. 5x10= 50M

	Sectio	**UNIT-I** prochordata	**UNIT-II** (Cyclostomata &Pisces)	UNIT-III (Amphibia & Reptilia)	**UNIT-IV** (Aves)	**UNIT-V** (Mammalia)
5 Marks Questions	**A**	**2**	**1**	**2**	**1**	**2**
10 Marks Questions	**B**	**1**	**2**	**2**	**2**	**1**
Weightag		**20**	**25**	**30**	**25**	**20**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165, KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY

PRACTICAL - II

w.e.f. 2020- 2021

I B.Sc

Code : ZOO - 201P

Hours / Week: 2 **Max. Marks: 50**

Credits: 2 **External : 25**

PAPER TITLE: ANIMAL DIVERSITY-BIOLOGY OF CHORDATES

Observation of the following slides / specimens / models:

Protochordata: Herdmania, Amphioxus, Amphioxus T.S. through pharynx.

Cyclostomata : Petromyzon, Myxine

Pisces **:**Pristis, Torpedo, Hippocoampus ,Exocoetus, Echeneis, Labeo, Catl Clarius,Channa,Anguilla.

Amphibia :*Ichthyophis, Amblystoma, Axolotl larva,Hyla*
,

Reptilia : Draco, Chamaeleon, Uromastix,,Testudo, Trionyx, Russelsviper,Naja, Krait, Hydrophis, Crocodile.

Aves **::** *Psittacula, Eudynamis, Bubo,Alcedo.*

Mammalia **:***Ornithorhynchus,Pteropus,Funambulus*

Dissections-

1. *Scoliodon*IX and X, Cranialnerves
2. *Scoliodon*Brain
3. Mounting of fishscales

Note: 1. Dissections are to be demonstrated only by the faculty or virtual.

2. Laboratory Record work shall be submitted at the time of practical examination.

REFERENCE BOOKS:

1. S.S.Lal, Practical Zoology –Vertebrata
2. P.S.Verma, A manual of Practical Zoology – Chordata

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165
EXTERNAL PRACTICAL- II
w.e.f. 2020-2021.
(Animal Diversity-Biology of Chordates) (2 hrs/week)
MODEL QUESTION PAPER -II Code: ZOO-201P

Credits: 2.
Time: 3 hrs. Max.marks: 25m.

1.	Draw neat labeled diagram of IX &X Cranial nerves of Shark.	7M
2.	Spotters: Identify , draw labeled diagram & write notes on A, B, C, D & E	5X3=15M
3.	Viva.	3M
	TOTAL:	25M.

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Guide lines for the practical Examiners

I. ***List of dissections*** :(5marks for diagram & 2 marks for labeling)

1. V, VII, IX, X Cranial nerves of shark/ locally available fishes.
2. Mounting of fishscales

II. ***Spotters:*** 1Mark for identification, 1 Mark for labeled diagram & 1 Mark for notes for each spotter.
Chordate: 4 Specimens / Slides / Models
(Prochordates, Fishes, Amphibians, Reptiles, Birds&Mammals)

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165
INTERNAL PRACTICAL- II

w.e.f. 2020-2021.
(2hrs/week).

(Animal Diversity of vertebrates) Code: ZOO-201P.
MODEL QUESTION PAPER -II
Max.marks:25M.
Time: 3hrs.

1. Attendance ---------- 5M.
2. Record ---------- 10M.
3. Project (Earn while you learn) ----------10M.

Total ------ 25M.

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ADUSUMILLI GOPALKRISHNAIAH& SUGARCANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU- 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

SEMESTER - IV

w.e.f. - 2020 - 21

Class: II B.Sc (B.Z.C)**Paper Code :** ZOO -401C

Credits: 4 **Max.Marks:** 70

60 hrs. (4 hrs / week)

Title of the Paper: Embryology, Physiology and Ecology.

UNIT-I

1.1Developmental biology and embryology

1.1.1 Gametogenesis (Spermatogenesis, Oogenesis in mammals)

1.1.2 Fertilization

1.1.3 Types of eggs

1.1.4 Types of cleavage

1.2Formation and function of fetal membrane in chick embryo

1.3 Development, types of placenta in mammals

UNIT-II

2.1 Physiology-I

2.1.1 Elementary study of process of digestion

2.1.2 Absorption of digested food

2.1.3 Structure of mammalian Lung& mechanism of respiration, transport of oxygen and carbon dioxide

2.1.4 circulation-structure and function of heart and cardiac cycle

2.1.5 excretion-structure if nephron, urine formation, counters current mechanism

UNIT-III

3.1 Physiology-II

3.1.1.Structure& functional properties of Nerve Cell; Production & propagation of nerve Impulse. Synaptic transmission.

3.1.2. Muscle contraction – ultra structure of muscle fiber, molecular and chemical basis of muscle contraction

3.2.3. Endocrine glands – structure, secretions and the functions (of hormones) of pituitary gland, thyroid,parathyroid, adrenal gland and pancreas

3.1.4. Hormonal control of reproduction in mammals

Unit IV

4.1 Ecology-I

4.1.1 Important abiotic factors of ecosystem – temperature, light, water, oxygen and CO_2

4.1.2 Nutrient cycles- Nitrogen, Carbon and Phosphorous

4.1.3 Components of ecosystem (example: lake), food chains and food web, energy flow in ecosystem.

UNIT-V

5.1 Ecology-II

5.1.1 Community interactions- mutualism, commensalism, parasitism, competition, predation.

5.1.2 Ecological succession

5.2 Zoogeography

5.2.1 Study of physical faunal peculiarities of Oriental, Australian and Ethiopian regions.

UNIT – VI – COMPETITIVE ZOOLOGY

6.1 Zoology Cell Cycles.

6.2 Zoology Time Scale Archaeopterys.

6.3 Zoology Time Scale Mammals

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A.G. &S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165, Krishna Dt. A.P. (Autonomous)

Model question paper Semester- IV

Title of the paper: Embryology, Physiology and Ecology. **Code – Zoo-401C**

Time: 3hrs. **Max. Marks: 70.**

Section – A 4 x 5 = 20M.

Answer any **four** questions. Each question carries **Five** marks. Draw neat labeled diagrams wherever necessary.

1. Types of eggs.
2. Foetal membranes.
3. Counter current mechanism.
4. Synaptic transmission.
5. Pancreas.
6. Energy flow in Ecosystem.
7. Mutualism.
8. Parasitism.

Section – B 5 x 10 =50M.

Answer any **five** questions. Each question carries **Ten** marks. Draw neat labeled diagrams wherever necessary.

9. Describe the process of Fertilization.

10. Write an essay on placenta.

11. Explain the mechanism of transport of oxygen and Carbon –dioxide in blood of mammals.

12. Describe the structure and working of mammalian heart.

13. Explain the structure and functions of pituitary gland.

14. Describe the Carbon and Nitrogen cycle.

15. Describe the process of Ecological succession in a pond.

16. Give an account of the fauna of oriental region.

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A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru – 521165, Krishna Dt. A.P. (Autonomous)

Semester - IV *Zoology*

Guide lines to the Paper Setter.

Title of the paper:Embryology, Physiology and Ecology. ***Code – Zoo-401C***

Time: 3hrs. ***Max. Marks: 70m.***

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1. Answer any **four** questions out of eight in Section .A. Each question carriesfive marks. 4x5=20m.

2. Answer any **five** questions out of eight in Section – B. Each question carries **Ten** marks. 5x10= 50M.

	PART	UNIT-I (E (Embryology)	UNIT-II (Physiology-I)	UNIT-III (Physiology	UNIT-IV (Ecology-I)	UNIT-V (EcologyII,Zoogeography)
5 Marks Questions	**A**	**2**	**1**	**2**	**1**	**2**
10 Marks Questions	**B**	**2**	**2**	**1**	**1**	**2**
Weightage		**30**	**25**	**20**	**15**	**30**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A.G& S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU - 521165,
KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY PRACTICAL SYLLABUS
SEMESTER - IV
PAPER – IV w.e.f : 2020 - 21

Periods: 24Max. Marks: 50

Paper Title: Embryology,Physiology & Ecology Paper Code: 401P

I. Embryology

1. Study of T.S. of testis, ovary of a mammal.
2 Study of different stages of cleavages (2, 4, 8 cell stages).
3 Study of chick embryo of 18 hours, 24 hours, 33 hours and 48 hours of incubation.

II. Physiology

1. Qualitative tests for identification of carbohydrates, proteins and fats.
2. Qualitative tests for identification of ammonia, urea and uric acid.
3. Study of activity of salivary amylase under optimum conditions.
4. Study of prepared slides of T.S. of duodenum, liver, lung, kidney, spinal cord, bone and cartilage.

III. Ecology

1. Determination of pH of given sample.
2. Estimation of dissolved oxygen of given sample.
3. Estimation of total alkalinity of given sample.
4. Estimation of salinity of given sample.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)
PAPER – IV

(Embryology, Physiology &Ecology)

Model question paper (External) w.e.f.2020-21.

Max.Marks: 25 M.

Paper Code: ZOO-401C

I.Embryology:

1. Identify, draw neat labeled diagram & comment on . $1^{½}$ x 2 = 3M.

   A & B

II. Physiology

2. Identify, draw neat labeled diagram & comment on . $1^{½}$ x 2 = 3M.

   A & B

3. Identify the organic substances in the given samples A & B, each with two tests. 4x $1^{½}$ = 6M.

   (Sample A- 2X2 ½ =5 Marks & sample B -- 2X2 ½ =5 Marks)

4. Identify the Excretory products in the given samples A & B, each with two tests. 4x $1^{½}$ = 6M.

   (Sample A- 2X2 ½ =5 Marks & sample B -- 2X2 ½ =5 Marks)

III. Ecology:

5. Determine the P^H of given sample. 1x2=2M.

6. Estimate the dissolved oxygen in the given sample. 1x5=5M.

A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165
ZOOLOGY PRACTICAL -IV
(INTERNAL)

(Embryology, Physiology &Ecology) w.e.f. 2020-2021.

(2hrs/week).
Code: ZOO-401P.

Max.marks:25M
Time: 3hrs.

1. Attendance ---------- 5M.
2. Record ---------- 10M.
3. Assignment ---------- 10M.

Total ------ 25M.

ADUSUMILLI GOPALAKRISHNAIAH & SUGARCANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU- 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

SEMESTER - VI

ZOOLOGY –ELECTIVE PAPER: VII-(A)

Class: III B.Sc (BZC) w.e.f – 2017-2018

60 hrs. Paper code: ZOO -601 GE

Credits: 3 External: 70

Title of the paper: Immunology

Objective of the course: To facilitate students to understand the role of immune system in the body, cells and organs of immune system, their structures and functioning.

Course out comes:

- Students grow in understanding of immune system, to improve their immunity and to protect them from pathogens.
- They identify their blood groups, their compatibility and the need to donate blood to save life.
- Students identify the classes, structures and functions of antibodies, antigen –antibody reactions.
- This study enables students to take care of themselves and take timely precautions against various diseases.
- They identify the cure of different diseases through various vaccines, the instruments involved in identification of immune reactions etc.

Unit I:

1.1 Overview of Immune system

1.1.1 Introduction to basic concepts in Immunology.

1.1.2 Innate and adaptive immunity

1.2 Cells and organs of Immune system

1.2.1 Cells of immune system

1.2.2 Organs of immune system

Unit II:

2.1 Antigens

2.1.1 Basic properties of antigens

2.1.2 B and T cell epitopes, haptens and adjuvants

2.1.3 Factors influencing immunogenicity

Unit - III :

3.1 Antibodies

3.1.1 Struture of an antibody

3.1.2 Classes and functions of antibodies

3.1.3 Antigen and antibody interactions.

3.1.4 Monoclonal antibodies and their production.

Unit - IV

4.1 Working of an Immune system

4.1.1 Structure and functions of major histocompatibility complexes

4.1.2 Exogenous and Endogenous pathways of antigen presentation and processing

4.1.3 Basic properties and functions of mediator molecules. (cytokines, interferonsand complement proteins).

4.1.4 Mechanisms of humoral and cell mediated immunities

Unit - IV

5.1 Immune system in health and disease

5.1.1 Classification and brief description of various types of hyper sensitivities

5.1.2 Introduction to concepts of autoimmunity and immunodeficiency

5.2 Vaccines

5.2.1 General introduction to vaccines

5.2.2 Types of vaccines

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A.G& S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU – 521165,
KRISHNA Dt.,A.P. (AUTONOMOUS)
SEMESTER-VI (Model Question paper)

Paper Title: ***Immunology*** ***Paper Code*:*ZOO-601GE***

Time: 3 hrs ***Max.Marks:70***

SECTION-A

Answer **any four** questions out of eight in Part - A. Each question carries five marks. **4 X 5 = 20**

1. Active immunity
2.Monoclonal antibodies.
3. T Cell Epitope
4.Structure of antibody.
5.Functions of major histo compatibility complexes (MHC)
6. Humoral immunity.
7.Causes of autoimmune diseases.
8 .BCGVaccine.

SECTION – B

Answer **any five** questions out of eight in Part – B. Each question carries ten marks. **5 X 10 = 50**

9. Give an account of innate immunity.

10. Write an essay on primary lymphoid organs.

11. Discuss about the basic properties of Antigen.

12. Write an essay on immunogenicity.

13. Describe about different types of immunoglobulins.
.

14. Give an account of basic properties and functions of Cytokines.

15. Define Hypersensitivity. Explain it in detail.

16. Explain different types of vaccines.

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A.G& S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

SEMESTER-VI
ZOOLOGY ELECTIVE PAPER-VII (A)
Guide lines to the paper setter

Paper Title: Immunology**. Paper Code: ZOO-601GE**
Time: 3 hrs Max.Marks:70

Note: 1. Answer **any four** questions out of eight in Part-A. Each question carries five marks.4 X 5= 20M.

2. Answer any **five** questions out of eight in Part-B. Each question carries 10 marks. 5 X 10= 50M.

	PART	Unit – I	Unit – II	Unit – III	Unit – IV	Unit – V
5 Marks Questions	**A**	**1**	**1**	**2**	**2**	**2**
10 Marks Questions	**B**	**2**	**2**	**1**	**1**	**2**
Weightage		**25**	**25**	**20**	**20**	**30**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

ZOOLOGY PRACTICAL SYLLABUS

PAPERS – VI

Period: 24
Max.Marks:50
Credits: 2
Paper Title: Immunology. Paper Code: ZOO-601GE (P)

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Part – A

1. Demonstration of lymphoid organs (as per UGC guidelines).

2. Histological study of spleen, thymus and lymph nodes (through prepared slides).

3. Blood group determination.

4. Demonstration of

   a. ELISA

   b. Immunoelectrophoresis

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REFERENCES BOOKS

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Sherwood, Klandrof, Yanc, Human Physiology, Thompson Brooks/Coole, 2005.
Knut Scmidt-Nielson, Animal Physiology**,** 5th ed, Cambridge Low Price Edition.
Richard A. Glodsby, Thomas J Kind, Barbara A. Osborne, Janis Kuby, Immunology, 5th ed, Freeman and Co. New York
Ivan Roitt, Immunology**,** 4th ed, JohanthanBrostoff, Moshy, London.
Thomas C. Chung, General Parasitology**,** Hardcourt Brace and Co ltd. Asia. New Delhi.
Gerard D. Schmidt and Larry S Roberts, Foundations of Parasitology**,** McGraw Hill
Kindt, T. J., Goldsby, R. A., Osborne, B. A., Kuby, J. (2006). VI Edition. Immunology. W.H. Freeman and Company.
Delves, P. J., Martin, S. J., Burton, D. R., Roitt, I.M. (2006). XI Edition. Roitt's Essential Immunology, Blackwell Publishing.

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A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU - 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

Immunology

Model Question Paper (External)
Paper Code: ZOO-601GE (P)
Practical - V **Max.marks:25m**

1. Demonstration of lymphoid organs (as per UGC guidelines)5m

2. Blood group determination 5m

3.Study the following techniques given on photographs & Write notes on. 2x5=10m
A & B

4. ELISA &. Immunoelectrophoresis (demonstration) on site or of site demonstration. 5m

Total: 25m.

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Guide lines for the Practical Examiners.

1. Demonstration of lymphoid organs
(5 marks for Procedure)

2. Blood group determination. .
(5 marks for Procedure)

3. Study the following techniques given on photographs& Write notes onA & B.

(1 mark for identification & 4 marks for diagram and notes, for each photographs)

4. ELISA (demonstration) on site or of site demonstration.

(5 marks for ELISAdemonstration)

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Immunology
Model Question Paper (Internal) Paper Code: ZOO-601GE (P)
Practical - V*Max. Marks: 25*

1. Attendance -- 5 M

2. Record -- 10M

3. Assignments -- 10M

Total -- 25M

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ADUSUMILLI GOPALAKRISHNAIAH & SUGARCANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU- 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

SEMESTER - VI (CBCS)

Class: III B.Sc (B.Z.C) (Cluster Elective Paper: VIII-B-1) **w.e.f. -** 2017 - 18

60 Hrs(4hrs/ week) Paper Code : ZOO-602CE

Credits : 3 External : 70

Title of the Paper: **Principles of Aquaculture**.

Objective of the course: To introduce students into aquaculture practices

Course outcomes:

- Students get wider knowledge on aquaculture
- The study of students Types of Aquaculture ,culture systems and Culture Practices
- They learn about design and construction of aqua farms(pond formation)
- They study various economically important species
- Students get acquainted with sea weed and their benefits.

UNIT –I

1.1 Introduction / Basics of Aquaculture:- Definition, Significance and History of Aquaculture

1.2 Present status of Aquaculture – Global and National scenario

1.3 Major cultivable species for aquaculture: freshwater, brackish water and marine.

1.4 Criteria for the selection of species for culture

Unit – II

2.1 Types of Aquaculture: - Freshwater, Brackishwater and Marine

2.2 Concept of Monoculture, Polyculture, Composite culture, Monosex culture and integrated fish farming

2.3Culture systems: - Ponds, Raceways, Cages, Pens, Rafts and water recirculating systems

2.4Culture practices:-Traditional, extensive, modified extensive, semi-intensive and intensive cultures of Fish and shrimp.

Unit – III

3.1 Design and construction of aqua farms :-Criteria for the selection of site for freshwater and brackish Water pond farms**,** Design and construction of fish and shrimp farms

3.2 Seed resources: - Natural seed resources and Procurement of seed for stocking: Carp and shrimp

3.3 Nutrition and feeds: - Nutritional requirements of a cultivable fish and shellfish

3.4 Natural food and Artificial feeds and their importance in fish and shrimp culture

Unit – IV

4.1 Management of carp culture ponds:- Culture of Indian major carps: Pre-stocking management – Dewatering, drying, Predators, weeds and algal blooms and their control, Liming andFertilization; Stocking management – Stocking density and stocking; Post-stockingManagement – Feeding, water Quality, growth and health care; and harvesting of ponds

4.2 Culture of giant freshwater prawn, *Macrobrachiumrosenbergii*

Unit – V

5.1Culture of shrimp (*Penaeus monodon* or *Litopenaeus vannamei*)

5.2 Culture of pearl oysters

5.3 Culture of seaweeds-species cultured, culture techniques, important by-products, prospects

5.4 Culture of ornamental fishes – Setting up and maintenance of aquarium; and breeding.

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A.G& S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

SEMESTER-VI (Model Question paper)
Cluster Electives paper –VIII-B-1

Time: 3 hrs

Max.Marks:70

Paper Title: Principles of Aquaculture. ***Paper Code: ZOO-602CE***

Part - A

Answer **any four** questions out of eight in Part - A. Each question carries five marks.**4 X 5 = 20**

1. Aquaculture History- .
2. NationalStatus of Aquaculture.
3. Monoculture. .
4. Cage culture
5. Criteria for selection of site for fresh water culture.
6. Seed resources of carp fish.
7. Pre- Stocking Management of carps.
8. Byproducts of sea weeds.

Part – B

Answer **any five** questions out of eight in Part – B. Each question carries Ten marks. **5 X 10 = 50**

9. Describe any three cultivable species of fresh water ponds.
10. Write the criteria for the selection of species for culture.
11. Write an essay on water recirculated system.
12. Write an essay on types of Aquaculture which you have studied.
13. Give an account of design and construction of Aquaculture.
14. Explain natural and artificial feeds and their importance in fish feeding.
15. Give an account of post- stock Management of carps.
16. Give an account of culture of penaeus monodon.

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ADUSUMILLI GOPALAKRISHNAIAH & SUGARCANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU- 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

SEMESTER-VI
Cluster Electives paper –VIII-B-1

Guide lines to the paper setter

Time: 3 hrs **Max.Marks:70**

Paper Title: Principles of Aquaculture. **Paper Code: ZOO-602CE**

Note: 1.Answer **any four** questions out of eight in Part-A. Each question carries five marks. 4 X 5 = 20M.

2. Answer any **five** questions out of eight in Part-B. Each question carries 10 marks. 5 X 10 = 50M.

	PART	Unit – I	Unit – II	Unit – III	Unit – IV	Unit – V
5 Marks Questions	A	2	2	2	1	1
10Marks Questions	B	2	2	2	1	1
Weightage		30	30	30	15	15

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY PRACTICAL

Periods: 24

Paper Title: Aquaculture (*Principles of Aquaculture)* **Code: ZOO-C-I**

Credits:2**Max.Marks:50**

Cultivable fishes

1. Identification and study of important cultivable and edible fishes - Any ten
2. Identification and study of important cultivable and edible crustaceans - Any five
3. Identification and study of common aquarium fishes – Any five
4. General description and recording biometric data of a given fish.

Diseases

1. Identification and study of fish and shrimp diseases - Using specimens / pictures
2. External examination of the diseased fish – diagnostic features and procedure.
3. Autopsy of fish – Examination of the internal organs.
4. Determination of dosages of chemicals and drugs for treating common diseases.

Pond Management

1. Water Quality -Determination of temperature, pH, salinity in the pond water sample; Estimation of dissolved oxygen, free carbon dioxide, total alkalinity, total Hardness, phosphates and nitrites.
2. Soil analysis – Determination of soil texture, pH, conductivity, available nitrogen, available Phosphorus and organic carbon.
3. Identification and study of common zooplankton, aquatic insects and aquatic weeds – Each 5

A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU - 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

Practical - VI w.e.f. 2020–21.
(Principles of Aquaculture) Max. Marks: 25
Model Question Paper (External) Paper Code: ZOO-C-I

I.Cultivable fishes:

1. Spotters: Identify, draw neat labeled diagram and comment on A, B, C & D — 4X2=8m

II.Diseases:

2. Identification and study of fish and shrimp diseases- Using specimens/ Pictures A & B — 2x2=4m
3. External examination of the diseased fish –diagnostic features and procedure. — 3m
4. Determination of dosages of chemicals and drugs for treating common diseases — 1x3=3m

III:Pond management:

5. Identification and study of common zooplankton, aquatic insects and aquatic weeds. A & B — 2x2=4m
6. Salinity in the pond water sample. — 3m

. **Total -- 25M**

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(AUTONOMOUS)

Guide lines for the Practical Examiners. ***w.e.f. 2020–21.***

1. Spotters:Identify and comment on A, B, C & D (Charts / Photographs).4X2=8m

(Identification - $^{1}/_{2}$ mark, neat labeled diagram and Comments -1 ½ m)

2. Identifyand comment on A & B (Charts / Photographs) 2x2=4m
(Identification - $^{1}/_{2}$ mark & Comments- 1½m)

3. External examination of the diseased fish –diagnostic features and procedure. 3m
(3 marks for Procedure)

4. Determination of dosages of chemicals and drugs for treating common diseases 1x3= 3m
5. Identification and study of common zooplankton, aquatic insects and aquatic weeds. 2x2=4m
(Identification - $^{1}/_{2}$ mark & Comments- 1½m
6. Salinity in the pond water sample. 3m

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A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU - 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

Practical - VI

(Principles of Aquaculture) ***Max. Marks: 25***

Model Question Paper (Internal) ***Code: ZOO-C-I***

1**.** Attendance -- 5 M

2. Record -- 10M

3. Assignments -- 10M

Total -- 25M

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SEMESTER - VIw.e.f. - 2017 - 18
Class: III B.Sc (B.Z.C) (Cluster Elective Paper: VIII-B-2)
60 Hrs. (4hrs/Week) Paper Code : ZOO-603CE
Credits : 3 External : 75

Title of the Paper: Aquaculture Management.

Objectives of the course: To instruct students on aquaculture managerial skills.

Course out comes:

- Students get know about breeding technology of fishes, Hatching and hatching methodology.
- Students learn to analyse the quality of water and soil.
- They are trained on feed storage, Feeding strategies: Feeding devices, feeding schedules and ration size.
- They gain knowledge on diseases of fish and shrimp and the strategies involved in marketing.
- They study economics and Marketing , **Fisheries Extension and** important of fish genetics.

Unit – I

1.1Breeding and Hatchery Management:- Bundh Breeding and Induced breeding of carp by Hypophysation; and Use of synthetic hormones.

1.2Types of fish hatcheries; Hatchery management of Indian major carps

1.3 Breeding and Hatchery management of *Penaeus monodon*/ *Litopenaeus vannamei*

1.4 Breeding and Hatchery management of giant freshwater prawn.

Unit – II

2.1 Water quality Management:-Water quality and soil characteristics suitable for fish and shrimp culture

2..2 Identification of oxygen depletion problems and control mechanisms in culture ponds

2..3 Liming materials, Organic manures and Inorganic fertilizers commonly used and Their implications in fish ponds

Unit – III

3.1 Feed Management :- Live Foods and their role in shrimp larval nutrition.

3.2 Supplementary feeds: Principal foods in artificial diets; Types of feeds; Feed additives and Preservatives; role of probiotics. Feed formulation and manufacturing; Feed storage

3.3 Feeding strategies: Feeding devices, feeding schedules and ration size; Feed evaluation- feed conversion efficiencies and ratios

Unit – IV

4.1 Disease Management :- Principles of disease diagnosis and health management;

4.2 Prophylaxis, Hygiene and Therapy of fish diseases

4.3 Specific and non-specific defense systems in fish; Fish immunization and Vaccination

4.4Etiology, Symptoms, prophylaxis and therapy of common fish diseases in fish ponds

4.5Etiology, Symptoms, prophylaxis and therapy of common shrimp diseases in shrimp ponds

Unit – V

5.1 Economics and Marketing :- Principles of aquaculture economics – variable costs, cost-benefit analysis **,**Fish marketing methods in India; Basic concepts in demand and price analysis.

5.2 Fisheries Extension :Fisheries Training and Education in India; Role of extension in community development.

5.3 Fish Genetics Genetic improvement of fish stocks – Hybridization of fish. Gynogenesis,Androgenesis, Polyploidy, Transgenic fish, Cryopreservation of gametes,

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(AUTONOMOUS)
SEMESTER-VI (Model Question paper)
Cluster Electives paper –VIII-B-2

Time: 3 hrs Max.Marks:70

Paper Title: Aquaculture Management. Paper Code: ZOO-603CE

Part - A

1. Answer **any four** questions out of eight in Part - A. Each question carries five marks. **4 X 5 = 25**

1. Bundh Breeding.

2. Types of hatcheries.

3. Liming Material.

4. Organic Manures.

5. Feed evaluation.

6. Supplementary feeds.

7. Sympptoms of fish diseases.

8. Gynogenesis

Part – B

2. Answer **any five** questions out of eight in Part – B. Each question carries ten marks. **5 X 10 = 50**

9. Describe the induced breeding of carps by Hypophystion

10. Give an account of breeding and Hatchery management of panaeus monodon.

11. Describe the water quality characteristics of fish ponds

12. Describe the identification of oxygen depletion problems and control mechanisms in culture ponds.

13. Give an account of Feed formulation and manufacturing.

14. Write an essay on feeding strategies.

15. Describe symptoms therapy and prophylaxis of any three diseases related to prawn.

16. Write an essay on transgenic fish.

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A.G& S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

SEMESTER-VI
Cluster Electives paper –VIII-B-2

Guide lines to the paper setter
Time: 3 hrs **Max.Marks:70**

Paper Title: Aquaculture Management**Paper Code: ZOO-603CE**

Note: 1. Answer **any four** questions out of eight in Part-A. Each question carries five marks. 4 X 5 = 20M.

2. Answer any **five** questions out of eight in Part-B. Each question carries 10 marks. 5 X 10 = 50M.

	PART	Unit – I	Unit – II	Unit – III	Unit – IV	Unit – V
5 Marks Questions	**A**	**2**	**1**	**2**	**1**	**2**
10 Marks Questions	**B**	**2**	**2**	**2**	**1**	**1**
Weightage		**30**	**25**	**30**	**15**	**20**

Note: 1. Please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY PRACTICAL

Credits: 2

Period: 24 **Max.Marks:50**

Paper Title: Aquaculturemanagement **Code : ZOO-C-II**

Nutrition

1. Identification and study of Live food organisms – Any five
2. Formulation and preparation of a balanced fish feed
3. Estimation of Proximate composition of aquaculture feeds – Proteins, carbohydrates, lipids, moisture, ash content.
4. Gut content analysis to study artificial and natural food intake.

Post harvest Technology

1. Evaluation of fish/ fishery products for organoleptic, chemical and microbial quality.
2. Preparation of dried, cured and fermented fish products, examination of salt, protein, Moisture in dried / cured products, examination of spoilage of dried / cured fish Products, marinades, pickles, sauce.
3. Preparation of isinglass, collagen and chitosan from shrimp and crab shell. ?
4. Developing flow charts and exercises in identification of hazards – preparation of Hazard analysis worksheet, plan form and corrective action procedures in processing of fish.

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Practical - VI

(Aquaculture management) **Max. Marks: 25**

Model Question Paper (External) **Paper Code: ZOO-C-II**

I. Nutrition:

1. Identification and study of Live food organisms- A & B2X2=4m

2. Estimation of Proximate composition of aquaculture feeds – A & B $2x2^{1/2}$=5m

II. Post harvest Technology:

3. Curd and fermented fish products (Procedure) 5m

4. Preparation of isinglass,collagen and chitosan from shrimp and crab shell. 5m

5. Identification of hazards & Comment on A & B. 2x3=6m

Total----------25m

A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU - 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

Guide lines for the Practical Examiners.

Max. Marks: 25

1. Identify and comment on A & B (Charts / Photographs).
(Identification - $^{1}/_{2}$ mark and Comments -1 $^{1}/_{2}$ m)

2. Estimation of Proximate composition of aquaculture feeds – A & B
(Composition –A-$2^{1/2}$ Composition – B-$2^{1/2}$)
3. Curd and fermented fish products (Procedure)
(5 marks for Procedure)
4. Preparation of isinglass, collagen and chitosan from shrimp and crab shell.
(If any one Procedure – 5 marks)
5. Identification of hazards & Comment on A & B
(Identification - 1 mark & Comments- 2m) .

A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU - 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

Practical - VI

(Aquaculture management) Max. Marks: 25

Model Question Paper (Internal) ***Code: ZOO-C-II***

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1. Attendance -- 5 M

2. Record -- 10M

3. Assignments -- 10M

Total -- 25M

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ADUSUMILLI GOPALAKRISHNAIAH & SUGARCANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU- 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

SEMESTER - VI (CBCS)

Class: III B.Sc (B.Z.C) (Cluster Elective Paper: VIII-B-3) **w.e.f. -** 2017- 2018
Hrs(4hrs/Week) Paper Code: ZOO-604CE
Credits: 3 External: 70
Title of the Paper: **Postharvest Technology**.

Objective of the course: To prepare students to become future aqua culturists.

Course outcomes:

- Students are given techniques to handle fresh fish, storage, preservation andtransport.
- They learn to extract maximum from fish and produce fish productions.
- They can earn while they learn.
- They are taught rules and regulations pertaining to quality control.
- Students get know aboutQuality Assurance, Management and Certification

Unit – I

1.1Handling and Principles of fish Preservation: - Handling of fresh fish, storage and transport of fresh fish, post mortem changes (Rigor mortis and spoilage), spoilage in marine fish and freshwater fish.

1.2 Principles of preservation– cleaning, lowering of temperature, rising of temperature, use of salt, use of fish preservatives, exposure to low radiation .

Unit – II

2.1 Methods of fish Preservation :- Traditional methods - sun drying, salt curing, pickling and smoking.

2.1.2 Advanced methods – chilling or icing, refrigerated sea water, freezing, canning, Irradiation and Accelerated Freeze drying (AFD).

Unit – III

3.1 Processing and preservation of fish and fish by-products:-Fish products – fish minced meat, fish mealfish oil, fish liquid (ensilage), fish protein concentrate, fish chowder, fish cake, fish sauce, fish salads, fish Powder, petfood from trash fish, fish manure.

3.2 Fish by-products – fish glue, ising glass, chitosan, pearl essence, shark fins, fish leather and fish maws.

3.3 Seaweed Products: -Preparation of agar, algin and carrageen. Use of seaweeds as food for humanconsumption.

Unit – IV

4.1.**Sanitation and Quality control :-** Sanitation in processing plants - Environmental hygiene and Personalhygieneinprocessing plants.

4.2.Quality Control of fish and fishery products – pre-processing control, control during processing and controlafter processing.

4.3. Regulatory affairs in industries

Unit – V

5.1 Quality Assurance, Management and Certification :-Seafood Quality Assurance and Systems: GoodManufacturing Practices (GMPs); Good Laboratory Practices (GLPs); Standard Operating Procedures (SOPs)ConceptofHazard Analysis and Critical Control Points (HACCP) in seafood safety.

5.2 National and International standards – ISO 9000: 2000 Series of Quality Assurance System.

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A.G& S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

SEMESTER-VI (Model Question paper)

Cluster Electives paper –VIII-B-3

Time: 3 hrsMax.Marks:70

Paper Title: Postharvest Technology. Paper Code: ZOO-604CE

Part - A

Answer **any four** questions out of eight in Part - A. Each question carries five marks.**4 X 5 = 25**

1. Storage of fish.
2. Exposure of fish to low radiation of gamma rays.
3. Accelerated freeze drying.
4. Pickling of fish
5. Fish oils.
6. Fish meal.
7. Pre- processing control of fishery products.
8. Codex Alimentarius.

Part – B

Answer **any five** questions out of eight in Part – B. Each question carries ten marks.**5 X 10 = 50**

9. Write the principles of fish preservation.

10. Write about spoilage in marine fish and fresh water fish.

11. Write about the Traditional methods of fish preservation like sun drying ,salt curing and smoking .

12.Give an account of advanced methods of preservation like chilling, freezing & canning.

13. Write an essay on any five fish byproducts.

14.Explain how sea weeds are useful in disease treatment and preparation of therapeutic drug.

15.Write an essay on environmental hygiene in processing plants.

16. Explain about the concept of hazard analysis & critical control points in sea food safety.

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A.G& S.G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P.
(AUTONOMOUS)

SEMESTER-VI
Cluster Electives paper –VIII-B-3

Guide lines to the paper setterTime: 3 hrs **Max.Marks:70**

Paper Title: Postharvest Technology**.Paper Code: ZOO-604CE**

*Note:*1. Answer **any four** questions out of eight in Part-A. Each question carries five marks.4X 5 = 20M.

2. Answer any **five** questions out of eight in Part-B. Each question carries 10 marks.5 X 10 = 50M.

	PART	Unit –I	Unit – II	Unit-III	Unit – IV	Unit – V
5 Marks Questions	**A**	**2**	**2**	**2**	**1**	**1**
10 Marks Questions	**B**	**2**	**2**	**2**	**1**	**1**
Weightage		**30**	**30**	**30**	**15**	**15**

Note: 1. please provide the scheme of valuation for the paper.

2. Question paper should be both in English and Telugu media.

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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY PRACTICAL

Period: 24

Credits: 2 **Paper Title:Post-harvest Technology**

Code : ZOO-C-III (PROJECT)

Max.Marks:50

Project Work

Visit to a fish breeding centre / fish farms and submit a project report

Or

Visit to a feed manufacturing unit and submit a project report

Or

Visit to a shrimp hatchery / shrimp farms and submit a project report

Or

Visit to a shrimp processing unit and submit a project report

A.G& S. G.S.DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU - 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

Practical - VI

(Post-harvest Technology) **Max. Marks: 25**

Model Question Paper (Internal) **Code: ZOO-C-III (PROJECT)**

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1. Attendance -- 5 M

2. Project Record – (Fish form) -- 20M

Total -- 25M

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A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF COMPUTER SCIENCE

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

18-07-2020

Minutes of the meeting of Board of Studies in Computer Science for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 18-07-2020 through Online Video Conference Cisco WebEx Meeting

Sri T.Naga PrasadaRao ..... Presiding

Members Present:

1)..... (T.NagaPrasadaRao)	Chairman	Head, Department of Computer Science, AG&SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
2)..... (Dr. R.Kiran Kumar)	University Nominee	Professor, Dept of Computer Science, Krishna University, Machilipatnam.
3)..... (Dr. Suresh Sundaradasu)	Academic Council Nominee	Head, Department of Computer Science& Engineering, Dhanekula Institute of Engineering & Technology, Ganguru, JNTU(K), Vijayawada.
4)..... (Dr. K Bhagvan)	Academic Council Nominee	Professor, Department of Computer Science K.B.N College, Vijayawada.
5)..... (R. Sowjanya)	Industrial Excepert	.Net Developer, Mavensoft Systems Private limited Madaapur, Hyderabad.
6)..... (K Srikanth)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165.
7)..... (T.Keerthi)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
8)..... (A. Sravani)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
9)..... (S.Prabhavathi)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
10)..... (V. N. MalleswaraRao)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
11)..... (A.Preethi)	Member	Student in M.Sc. Computer Science, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
12)..... (A GirijaSuma)	Member	Student in B.Sc. Computer Science, AG&.SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

Agenda for B.O.S Meeting.

1. To recommend syllabi for V Semester of III year Degree B.Sc(MPCs, MCCs.) & B.Com (C.A) as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
2. To recommend the Model Question Papers, Lab programs list and Blue print of Semester of III year Degree B.Sc. (MPCs, MCCs.)&B.Com (C.A) as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

3. To recommend the Guidelines to be followed by the question paper setters in Computer Science for III year Degree B.Sc.(MPCs, MCCs.)&B.Com (C.A) as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

4. To recommend any changes in the syllabi for I, III, V Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs) and B.Com.(C.A.).

5. To recommend the new paper for III BCOM (C.A) in Semester V Syllabi, Model Question paper, Lab programs list and Blue print, Guidelines to be followed by the question paper setters in Computer Science for III Year Degree B.Com. (C.A) with effect from the Academic Year 2020-21.

6. To recommend the teaching and evaluation methods to be followed under Autonomous status.

7. Any suggestions regarding the certificate courses for all Computer Science and Non-Computer Science students, seminars, workshops, Guest lecturers to be organized.

8. Any other matter.

Resolutions

1) Discussed and recommended, to implement same syllabi for V Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.) as per the APSCHE guidelines and their instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21 except one paper in III B.Com (CA)
2) Discussed and recommended to introduce a new paper titled "Object Oriented Programming with Java" for III BCOM(C.A) in Semester V, Syllabi, Model Question paper, Lab programs list and Blue print, Guidelines to be followed by the question paper setters in Computer Science for III Year Degree B.Com.(C.A) with effect from the Academic Year 2020-21.
3) Discussed and recommended, to implement Model Question Papers, Lab Programs List and blue print for V Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.) as per the APSCHE guidelines and their instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
4) Discussed and recommended the syllabi without any changes for the following semesters
   - I Semester of I Year B.Sc. (MPCs, MCCs) & B.Com.(CA).
   - IIISemester of II Year B.Sc. (MPCs,MCCs) & B.Com.(CA).
   - Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2020-21.
5) Discussed and recommended the teaching and evaluation methods for approval of Academic Council.
6) **It Is Resolved And Recommended to follow the New Syllabi And Model Question Paper of Regulations of 2020-21 in I Semester Of I Year Degree Bsc(Mpcs,Mccs) And Bcom(CA).**
7) **It is Resolved and Recommended NO changes in the Syllabi for III Semester of II Year Degree Bcom(CA),BA,BSC,BSC(MPCS,MCCS).**

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc.. for better understanding of concepts.

Evaluation of a student is done by the following procedure for All III Year B.Sc. (MPCs,MCCs) &B.Com. (C.A). For the Batch of Students Admitted from Academic year 2018-19.

There are two components in the Valuation and Assessment of a student – Internal Assessment (**IA**) Semester Examinations (**SE).**

Internal Assessment (IA)

i. The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50.
ii. Each IA written examination is of 1 hour's duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
iii. Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /ppt/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation. For attendance 5 Marks are allotted.
iv. The semester examination will be of 3 hours with maximum 70 marks.
v. There is no passing minimum marks for IA.

Semester-End Examinations: A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.

i) The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.

ii) If a candidate fails to obtained pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.

iii) Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.

iv) The maximum marks for each Paper shall be 100.

v) The maximum marks for Semester-End examinations shall be 70 marks and duration of the examination shall be 3 Hours.

vi) Semester-End examinations shall be conducted in theory papers and the practical papers are conducted at the end of every Semester for B.Sc. (MPCs,MCCs)& B.Com.(C.A) only.

vii) Odd semester practical end examinations are to be evaluated by Internal Examiners and Even semester practical end examinations are to be evaluated by External Examiners.

Question paper guide lines for Practical Examinations at the end of Semesters Two Practical Programs to be conducted out of 15 programs at the end of Semester Practical Examination time 3Hrs&Maximum Marks 50 Scheme of valuation Semesters – B.Sc. (MPCs, MCCs), B. Com (CA)

Computer Science Practical's - External (Time: 3 hrs.) **Total Marks: 25M**

1. Programs Writing (2)	:	10 marks,
2. Viva voice	:	5 marks
3. Execution &Result	:	10 marks
Total Marks	:	25

Computer Science Practical's- Internal **Total Marks: 25M**

1. Attendance	: 5 marks
2. Record	: 10 marks
3. Day to day observation	: 5marks
4. Problem solving and Execution	: 5 marks
Total Marks	: 25

7). Discussed and recommended to organize certificate courses for Computer Science and Non-Computer Science students separately, Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.

8) It is resolve to follow further changes if any in the syllabus by competent authority.

9) Discussed and Recommend to introduce Value Added Course on "**BASIC COMPUTER APPLICATIONS & MS OFFICE**" with Course Code "**BCAM101**" for 1ST MPC's & MCC's -1ST SEM

10) Discussed and Recommend to introduce Value Added Course on "**AWS**" with Course Code "**VACAWS-01**" for II MPC's &MCC's-3rd SEM

11) Discussed and Recommend to introduce Value Added Course on "**CLOUD COMPUTING**" with Course Code "**VACCC12**" for IIIBCOM(CA)-5TH SEM

12) Suggestions To recommend Online certificate courses such as NPTL, APSSDC - PYTHON, R-Programming, Amazon Web services and JAVA ------etc. To fill the curriculum gaps from II Year Degree on words.

Chairman

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COMPUTER SCIENCE	**CSC-501C**	**2020-'21**	**B.Sc.(MPCs,MCCs)**

SEMESTER – V **PAPER – V** **Max. Marks 70**

Syllabus **DATA BASE MANAGEMENT SYSTEMS**

NO Of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

Course Objective: Design & develop database for large volumes & varieties of data with optimized data processing techniques.

Unit – I: Database Systems Introduction **12Hrs**

Database Systems: Introducing the database and DBMS, Why the database is important, *Historical Roots:* Files and File Systems, Problems with File System, Data Management, Database Systems. *Data Models:* The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models, Degree of Data Abstraction.

Unit - II: Relational Database & Data Modelling **12 Hrs**

The Relational Database Model: A logical view of Data, Keys, Integrity Rules, Relational Set Operators, The Data Dictionary and the system Catalog, Indexes, Codd's relational database rules.*Entity Relationship Model:* The ER Model***Advanced Data Modelling****:* The Extended Entity Relationship Model, Entity clustering, Entity integrity.

Unit-III:Normalization and Database Design **14 Hrs**

Data base Tables and Normalization, The need Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

Database Design: The Information System, The Systems Development Life Cycle, The Database Life Cycle, Centralized Vs Decentralized design.

Unit-IV:Structured Query Language **12 Hrs**

Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators, Sub queries and correlated queries, SQL Functions.

Unit-V: Procedural SQL

10Hrs*Introduction to PL/SQL:* Triggers, Stored Procedures, Pl/ SQL Stored Functions

Prescribed Text Book:

1. **P**eter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).

Reference Books:

1. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley 2. Raman A Mata – Toledo/Panline K Cushman, Database Management Systems, .
2. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition,
3. "DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan,
4. Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006).

Student Activity: 1. Create your college database for placement purpose. 2. Create faculty database of your college with their academic performance scores

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COMPUTER SCIENCE	CSC-501C	2020-'21	B.Sc.(MPCs,MCCs)

SEMESTER – V **PAPER – V** **Max. Marks 70**

Model Paper **DATA BASE MANAGEMENT SYSTEMS**

NO Of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

Section-A

Answer any **FOUR** Questions. Each question carries **FIVE** Marks **4x5=20M**

1. Explain the Components of Database System?
2. Explain Relational Data Model?
3. Write about Relational Set Operators?
4. Describe BCNF?
5. Write about Special Functions?
6. Explain Stored Procedures?

Section-B

Answer any **FIVE** Questions. Each question carries **TEN** Marks **5X10=50M**

7. What is File? Explain the problems with File system
8. Explain the Degree of Data Abstraction.
9. Explain E.F.CODDs' rules.
10. Explain Extended Entity Relationship Model.
11. Explain the concept of Normal Forms.
12. Explain about SDLC.
13. Explain DDL and DML commands.
14. Explain about triggers.

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COMPUTER SCIENCE	CSC-501C	2020-'21	B.Sc.(MPCs,MCCs)

SEMESTER – V PAPER – V Max. Marks 70 Pass Marks 28

Guidelines for paper setting '**DATA BASE MANAGEMENT SYSTEMS'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

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COMPUTER SCIENCE	**CSC-501P**	**2020-'21**	**B.Sc.(MPCS,MCCs)**

SEMESTER – V **PAPER – V** **Max. Marks 50**

Lab List DATA BASE MANAGEMENT SYSTEMS **Pass Marks 25**

No. of Hours per week: 2 **External: 25** **Internal: 25** **Credits: 2**

1. Creation of college database and establish relationships between tables
2. Explain various data type in Oracle.
3. Show the structure of the Emp table.
4. Show the structure of the DEPT table.
5. Explain the syntax of SELECT statement.
6. Create a query to display the name, job, hiredate and employee number from emp table.
7. Create a query to display unique jobs from the emp table.
8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire_date from emp.
9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE_OUTPUT.
10. Create a query to display the name and salary of employees earning more than 2850.
11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
12. Display the employee name, job and start date of employees hired between February 20 ,1981 and May 1, 1981. Order the query in ascending order of start date
13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
14. List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
15. Display the name, salary and commissions and sort data in descending order of salary and commission.
16. Display the name and job title of all employees who do not have a manager.
17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
18. Display the names of all employees where the third letter of their name is an 'A'.
19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
20. Display the name , salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
21. Explain all the character functions.
22. Explain all the number functions.
23. Explain all the Date functions.
24. Explain different types of JOIN.
25. Write a query to display the name, department number and department name for all employees.
26. Create a unique listing of all jobs that are in department 30. and include the location of department 30 in the output.
27. Write a query to display the employee name, department name and location of all employees who earn a commission.
28. Write a query to display the name ,job department number and department name for all employees who work in 'DALLAS'.

29. Create a query to display the name and hire date of any employee hired after employee BLAKE.
30. . Display all employees names and hire dates along with their manager's name and hire date for all employees who were hired before their managers.
31. Create your own users and give permissions to you and explain GRANT and REVOKE Commands.

A. Create MOVIE database using the following tables.

MOVIE:Movie no: primary key, varchar2Movie name: NOT NULL, varchar2Movie Type: varchar2Star: Varchar2

CUSTOMER: Customer No: primary key, varchar2 Customer Name: NOT NULL, varchar2 Address: NOT NULL Phone no: Number INVOICE: Invoice no: Varchar2, primary key Movie no: foreign key Customer no: foreign key Price: NOT NULL, Number

Queries:

1. List the movie names that starts with 'p'
2. List the number of the movies those price ranges from 15000 and 20000
3. List the customers who have phone numbers.
4. List the customers who have no phone numbers.
5. Display the following string
   (a) A Customer "customer number" has bought the "movie number" "movie name" with "Price"
6. List the customers by calculating price as (price*tax)/100 where tax=0.5 and rename the column as 'tax'.
7. List the movies, which are owned by 2 customers.
8. List the customers, who bought 2 picture names.
9. List the customers, who are not the range of 15000 and 20000.

B. Create Student database using the following tables.

STUDENT: Sno : primary key, numberSname : NOT NULL, varchar2 Address: Varchar2

COURSE:Sno : Foreign key.Course Name : varchar2

Queries:

1. Alter table by adding a column fees in table COURSE.
2. Alter table by modifying the address to VARCHAR2(20)
3. Create a view on which the students who joined in one course only.

PL/SQL.

1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
3. Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.
6. Write A Procedure Update The Salary Of Employee, Who is Not Getting Commission by 10%.

Reference Books:

1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition
2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

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COMPUTER SCIENCE	CSC-502C	2020-'21	B.Sc.(MPCs,MCCs)

SEMESTER – V **PAPER – VI** **Max. Marks 70**

Syllabus **SOFTWARE ENGINEERING**

NO of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

Course Objectives

The Objective of the course is to assist the student in understanding the basic theory of software engineering, and to apply these basic theoretical principles to a group software development project.

UNIT-I: Introduction to Software Engineering & Process **12Hrs**

The Evolving Role of Software– Software - The Changing Nature of Software, Software Myths, Legacy Software.

Process: Software Engineering-A Layered Technology - A Process Framework - The Capability Maturity Model Integration (CMMI) - Process Patterns, Process Assessments - Personal Software Process(PSP), Team Software Process (TSP).

Unit-II: Process Models **12Hrs**

The Waterfall Models - Increment Process Models: The Increment Model, The RAD Model - Evolutionary Process Models: Prototyping, The Spiral Model, The Concurrent Development Model- The Unified Process: Phases of The United Process, Unified Process Work Products.

Unit-III: Requirements Engineering **14 Hrs**

Requirements Engineering Tasks - Initiating The Requirements Engineering Process - Eliciting Requirements: Collaborative Requirements Gathering, Quality Function Deployment, User Scenarios, Elicitation Work Products - Negotiating Requirements - Validating Requirements.

Unit-IV: Design Engineering **10Hrs**

Design Process And Design Quality - Design Concepts - The Design Model: Data Design Elements, Architectural Design Elements, Interface Design Elements, Component-Level Design Elements, Deployment -Level Design Elements.

Unit-V:Software Quality: **12Hrs**

Quality and Quality Concepts, Software Quality Assurance (SQA), Software Reviews, Formal Technical Reviews, Formal Approaches to SQA and SSQA, Software Reliability, The ISO 9000 Quality Standards, The SQA Plan.

Prescribed Text Book:

1. Software Engineering – A Practitioner's Approach, Sixth Edition - Roger S Pressman, TATA McGrawHill: Chapters: 1,2,3,7,8 and 9)

Reference Books:

1. Software Engineering Principles and Practice by Deepak Jain Oxford University Press
2. Sommerville, "Software Engineering", Eighth Edition, Pearson Education, 2007

Student Activity: Visit any financial organization nearby and prepare requirement analysis report 2. Visit any industrial organization and prepare risk chart.

A.G. & S.G. Siddhartha Degree College of Arts & Science

Vuyyuru-521165, Krishna District, Andhra Pradesh

(An Autonomous institution in the jurisdiction of Krishna University, Machilipatam)

NAAC "A" Grade, ISO 9001:2015 Certified Institution

DEPARTMENTOFCOMPUTERSCIENCE

Minutes of the meeting of Board of Studies in Computer Science for PG held on 06-04-2023 in theDepartmentofComputerScience.

Semester	:	II	Programme	:	M.Sc (Comp. Sci.)
Course	:	Web Technologies	Course Code	:	22CS2T3
Course delivery method	:	Class room / Blended	Credits	:	4
Credits	:	4	CIA marks	:	30
No. of lecture hours / week	:	4	Semester end exam	:	70
Total no. of lecture hours	:	60	Total marks	:	100
Year of Introduction	:	2020-21	Year of Revision	:	2022-23
% of revision	:	30%			

Course content suggested by APSCHE	Additions	Deletions
UNIT-I: Introduction to Software Engineering & Process	NIL	NIL
Unit-II: Process Models		**VB Script:**
Unit-III: Requirements Engineering		
Unit-IV: Analysis Model		**Analysis Model**
Unit-V: Design Engineering	**Design Engineering moved to unit-4** **Software Quality**	

It is resolved and recommend the changes in the syllabus of course code: 22CS2T3, Course: Web Technologies from the academic year 2022-23 onwards for I M.Sc (Computer Science), II Semester.

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COMPUTER SCIENCE	**CSC-502C**	**2020-'21**	**B.Sc.(MPCs,MCCs)**

SEMESTER – V **PAPER – VI** **Max. Marks 70**

Model Paper **SOFTWARE ENGINEERING**

NO of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

Section – A

Answer any **FIVE** Questions. Each question carries **FIVE** Marks **4x5=20M**

1. Write about Software Layered Technology?
2. Explain about Process Framework?
3. Explain about RAD Model?
4. Explain Validating Requirements
5. Explain about Modularity?
6. Write about Software Reliability?

Section – B

Answer any **FIVE** Questions. Each question carries **TEN** Marks **5X10=50M**

7. Explain about CMMI?
8. Explain about Software Myths?
9. Explain about Incremental Model?
10. Explain about Spiral Model?
11. Explain about Requirements Engineering Tasks?
12. Write about design concepts in design engineering?
13. Explain about Quality and Quality Concepts?
14. Write about SSQA?

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COMPUTER SCIENCE	CSC-502C	2020-'21	B.Sc.(MPCs,MCCs)

SEMESTER – V PAPER – VI Max. Marks 70 Pass Marks 28

Guidelines for paper setting '**SOFTWARE ENGINEERING'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	1
Unit-4	1	1
Unit-5	1	2

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

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COMPUTER SCIENCE	CSC-502C	2020-'21	B.Sc.(MPCS,MCCs)

SEMESTER – V **PAPER – VI** **Max. Marks 50**

Lab List **SOFTWARE ENGNEERING** **Pass Marks 25**
No. of Hours per week: 2 **External: 25** **Internal: 25** **Credits: 2**

A. ATM

1.Objective of an ATM System. 2. Use-case Diagram of an ATM System

3. Class Diagram of an ATM System 4. Sequence Diagram of an ATM System

5. Activity Diagram of an ATM System 6. State Diagram of an ATM System

7. Deployment Diagram of an ATM System 8. ER Diagram of an ATM System

B. Library management System

1. Objective of Librarymanagement System.2. Use-case Diagram of Librarymanagement

3. Class Diagram of Library management System4. Sequence Diagram of Library management

5. Activity Diagram of Library management System6. State Diagram of Library management

7. Deployment Diagram of Library management System8. ER Diagram of Library management

C. Barcode Reader

1. Objective of Barcode Reader 2. Use-case Diagram of Barcode Reader

3. Class Diagram of Barcode Reader 4. Sequence Diagram of Barcode Reader

5. Activity Diagram ofBarcode Reader 6. State Diagram ofBarcode Reader

7. Deployment Diagram ofBarcode Reader 8. ER Diagram ofBarcode Reader

D .Safe Home System

1. Objective of Safe Home System. 2. Use-case Diagram of Safe Home System

3. Class Diagram of Safe Home System 4. Sequence Diagram of Safe Home System

5. Activity Diagram ofSafe Home System 6. State Diagram ofSafe Home System

7. Deployment Diagram of Safe Home System 8. ER Diagram of Safe Home System

E. Online Book Store System

1. Objective of Online Book Store System 2. Use-case Diagram of Online Book Store System

3. Class Diagram of Online Book Store System 4. Sequence Diagram of Online Book Store

5. Activity Diagram ofOnline Book Store System 6. State Diagram ofOnline Book Store System

7. Deployment Diagram of Online Book Store System 8. ER Diagram of Online Book Store

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COMPUTER SCIENCE	**CCSC-505C**	**2020-21**	**B. Com (CA)**

SEMESTER – V **PAPER – V** **Max. Marks 70** **Pass Marks 28**

Syllabus **OBJECT ORIENTED PROGRAMMING USING JAVA**

Total Hrs: 60 **NO. Of. Hours: 5** **Credits: 3**

UNIT-I **10Hrs**

Fundamentals of Object – Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features:

UNIT-II **14Hrs**

Overview of Java Language: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. **Constants, Variables & Data Types:** Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Type casting, Getting Value of Variables, **Operators.**

UNIT-III **12Hrs**

Decision Making & Branching: Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. **Looping**: Introduction, while statement, do-while statement, for statement, Jumps in loops.

UNIT-IV **12 Hrs**

Classes, Objects & Methods: Introduction, defining a class, adding variables, adding methods, creating objects, Accessing class members, Constructors, Method overloading, Method Overriding, Static members, Nesting of methods;

UNIT-V **12Hrs**

Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Abstract Methods and Classes; **Arrays, Strings And Vectors:** Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; **Interfaces**: **Multiple Inheritance**: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;

Prescribed Text Book:

1. E. Balaguruswamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company.

Reference Books

1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford University Press
2. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
3. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
4. Deitel&Deitel. Java TM: How to Program, PHI (2007)
5. Java Programming: From Problem Analysis to Program Design- D.S Mallik

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(**With Effect from Academic Year2020-21**)

COMPUTER SCIENCE	**CCSC-505C**	**2020-21**	**B. Com (CA)**

SEMESTER – V PAPER – V Max. Marks 70 Pass Marks 28

Syllabus **OBJECT ORIENTED PROGRAMMING USING JAVA**

Total Hrs: 60 **NO. Of. Hours: 4** **Credits: 3**

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4*5=20M

1. What are the Applications of OOP?
2. What is a variable? Explain its rules?
3. Explain different data types in java?
4. Write about switch statement?
5. Explain about Constructors?
6. Differences between arrays and vectors?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks 5*10=50M

7. Explain the Concepts of Object Oriented Programming?
8. Explain java Features?
9. Explain the structure of java program?
10. Explain different types of Operators in Java with Examples?
11. Explain about Decision Making Statements with examples?
12. Explain Looping statements with example?
13. Explain Method overloading with an example program?
14. Explain about inheritance?

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COMPUTER SCIENCE	**CCSC-505C**	**2020-21**	**B. Com (CA)**

SEMESTER – V PAPER – V Max. Marks 70 Pass Marks 28

Syllabus OBJECT ORIENTED PROGRAMMING USING JAVA

Total Hrs: 60 NO. Of. Hours: 4 Credits: 3

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	1	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

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(**With Effect from Academic Year2020-21**)

COMPUTER SCIENCE	**CCSC-505C**	**2020-21**	**B. Com (CA)**

SEMESTER – VPAPER – V

Lab List OBJECT ORIENTED PROGRAMMING USING JAVA Pass Marks 25

No. of Hours per week: 2 External: 25 Internal: 25 Credits: 2

1. Write a program to perform various String Operations
2. Write a program to print the given number is Armstrong or not?
3. Prompt for the cost and selling price of an article and display the profit (or) loss
4. Write a program to print the numbers given by command line arguments
5. Write a program on class and object in java
6. Illustrate the method overriding in JAVA
7. Write a program to find the Simple Interest using Multilevel Inheritance
8. Write a program to display matrix multiplication.
9. Write a program on interface in java
10. Write a program on inheritance

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COMPUTER SCIENCE	CCSC 506C	2020-'21	B.Com.(C.A.)

SEMESTER – V **PAPER – VI** **Max. Marks 70**

Syllabus **DATA BASE MANAGEMENT SYSTEMS**

NO Of Hours: 5 **No Of Credits: 3** **Pass Marks 28**

Course Objective: Design & develop database for large volumes & varieties of data with optimized data processing techniques.

Unit – 1: Database Systems Introduction **12Hrs**

Database Systems: Introducing the database and DBMS, Why the database is important,
Historical Roots: Files and File Systems, Problems with File System, Data Management, Database Systems.
Data Models: The importance of Data models, Data Model Basic Building Blocks, The evaluation of Data Models.

Unit - II: Relational Database & Data Modelling **12 Hrs**

The Relational Database Model: A logical view of Data, Keys, Integrity Rules, Relational Set Operators, Indexes, Codd's relational database rules.*Entity Relationship Model:* The ER Model
Advanced Data Modelling: The Extended Entity Relationship Model, Entity clustering.

Unit-III: Normalization and Database Design **14 Hrs**

Normalization of database tables: Database Tables and Normalization, The need for Normalization, The Normalization Process, High level Normal Forms, Normalization and database design, de normalization.

Unit-IV: Structured Query Language **12 Hrs**

Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators,

Unit-V: Procedural SQL **10 Hrs**

Introduction to PL/SQL : Triggers, Stored Procedures, Pl/ SQL Stored Functions

Prescribed Text Book:

1. **Peter Rob, Carlos Coronel, Database Systems Design, Implementation and Management, Seventh Edition, Thomson (2007).**

Reference Books:

3. Elimasri / Navathe, Fundamentals of Database Systems, Fifth Edition, Pearson Addison Wesley
4. Raman A Mata – Toledo/Panline K Cushman, Database Management Systems, Schaum'sOutlibe series, Tata McGraw Hill (2007).
5. C.J.Date, A.Kannan, S.Swamynathan, An Introduction to Database Systems, Eight edition, Pearson Education (2006).
6. "DatabaseSystemConcepts" by AbrahamSilberschatz, Henry Korth, and S.Sudarshan, McGrawhill
7. Atul Kahate, Introduction to Database Management Systems, Pearson Education (2006).

Student Activity:

1. Create your college database for placement purpose.
2. Create faculty database of your college with their academic performance scores

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COMPUTER SCIENCE	**CCSC 506C**	**2020-'21**	**B.Com.(C.A.)**

SEMESTER – V **PAPER – VI** **Max. Marks 70**

Model Paper **DATA BASE MANAGEMENT SYSTEMS**

NO Of Hours: 5 **No Of Credits: 3** **Pass Marks 28**

Section-A

Answer any **FOUR** Questions. Each question carries **FIVE** Marks **4x5=20M**

1. Explain the Components of Database System?
2. Explain Entity Relationship Model?
3. Write about Relational Set Operators?
4. Describe BCNF?
5. Write about Special Functions?
6. Explain Stored Procedures?

Section-B

Answer any **FIVE** Questions. Each question carries **TEN** Marks **5X10=50M**

7. What is File? Explain the problems with File system?
8. Explain any three different Data Models?
9. Explain E.F. CODDs' rules?
10. Explain Extended Entity Relationship Model?
11. Explain the concept of Normal Forms?
12. Explain different join operators?
13. Explain DDL and DML commands?
14. Explain about triggers?

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COMPUTER SCIENCE	CCSC 506C	2020-'21	B.Com.(C.A.)

SEMESTER – V PAPER – VI Max. Marks 70 Pass Marks 28

Guidelines for paper setting '**DATA BASE MANAGEMENT SYSTEMS'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	1
Unit-4	1	2
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

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(**With Effect from Academic Year 2020-21**)

COMPUTER SCIENCE	**CCSC-506P**	**2020-'21**	**B. COM(CA)**

SEMESTER – V **PAPER – VI** **Max. Marks 50**

Lab List DATA BASE MANAGEMENT SYSTEMS Pass Marks 25

No. of Hours per week: 2 **External: 25** **Internal: 25** **Credits: 2**

1. Creation of college database and establish relationships between tables
2. Explain various data type in Oracle.
3. Show the structure of the Emp table.
4. Show the structure of the DEPT table.
5. Explain the syntax of SELECT statement.
6. Create a query to display the name, job, hiredate and employee number from emp table.
7. Create a query to display unique jobs from the emp table.
8. Create a query to display the empno as EMP#, ename as EMPLOYEE and Hire_date from emp.
9. Create a query to display all the data from the EMP table. Separate each column by a comma and name the column THE_OUTPUT.
10. Create a query to display the name and salary of employees earning more than 2850.
11. Create a query to display the name and salary for all employees whose salary is not in the range of 1500 and 2850.
12. Display the employee name, job and start date of employees hired between February 20 ,1981 and May 1, 1981. Order the query in ascending order of start date
13. Display the employee name and department number of all the employees in departments 10 and 30 in alphabetical order by name.
14. List the name and salary of employees who earn more than 1500 & are in department 10 or 30.
15. Display the name, salary and commissions and sort data in descending order of salary and commission.
16. Display the name and job title of all employees who do not have a manager.
17. Display the name, job and salary for all employees whose job is Clerk or Analyst and their salary is not equal to 1000, 3000 or 5000.
18. Display the names of all employees where the third letter of their name is an 'A'.
19. Display the names of all employees who have two 'L's in their name and are in department 30 or their manager is 7782.
20. Display the name , salary and commission for all employees whose commission amount is grater than their salary increased by 10%.
21. Explain all the character functions.
22. Explain all the number functions.
23. Explain all the Date functions.

<u>Create Student database using the following tables.</u>

STUDENT: Sno : primary key, numberSname : NOT NULL, varchar2 Address: Varchar2

COURSE:Sno : Foreign key.Course Name : varchar2

Queries:

1. Alter table by adding a column fees in table COURSE.
2. Alter table by modifying the address to VARCHAR2(20)
3. Create a view on which the students who joined in one course only.

PL/SQL.

1. Write A Pl/Sql Program To Swap Two Numbers Without Using Third Variable.
2. Write A Pl/Sql Program To Generate Multiplication Tables For Numbers 2,4 And 6
3. Write A Pl/Sql Program To Display Sum Of Even Numbers And Sum Of Odd Numbers In The Given Range.
4. Write A Pl/Sql Program To Check The Given Number Is Pollinndrome Or Not.
5. Write A Pl/Sql Program To Display Top 10 Rows In Emp Table Based On Their Job And Salary.

Reference Books:

1. Oracle Pl/Sql By Example. Benjamin Rosenzweig, Elena Silvestrova, Pearsoneducation 3rd Edition

2. Sql& Pl/Sql For Oracle 10g, Black Book, Dr.P.S. Deshpande

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COMPUTER SCIENCE	**CCSC-507C**	**2020-'21**	**B.Com.(CA)**

SEMESTER – V **PAPER – VII** **Max. Marks 70**

Syllabus **WEB TECHNOLOGIES**

NO Of Hours: 5 **No of Credits: 3** **Pass Marks 28**

Unit -I Introduction to XHTML:
Introduction to HTML, Basic html, Document body text, Hyperlinks, Lists, Tables, Images,Frames, Forms and XHTML.

Unit- II: CSS:
Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.
Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators.

Unit –III: Objects in Java Script & Dynamic HTML with Java Script
Objects in Java Script: Data and objects in java script, Regular expressions, Exception Handling, built in objects, Events.
Dynamic HTML with Java Script: Data validation, Rollover buttons, Moving images.
Unit –IV: XML Defining Data for Web Applications

XML: Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, Using XML parser.

Unit -V:JSP:

JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

Prescribed Books:

1.Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley
2.Head First Servlets and JSP 2nd Edition, Bryan Basham, Kathy Sierra
2. Uttam Kumar Roy, Web Technologies from Oxford University Press

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COMPUTER SCIENCE	**CCSC-507C**	**2020-'21**	**B.Sc.(MPCs)**

SEMESTER – V **PAPER – VII** **Max. Marks 70**

Model Paper **WEB TECHNOLOGIES**
No of Credits: 3 **Pass Marks 28**

Section-A

Answer **FOUR**Questions. Each Question carries **FIVE** Marks. 5 X 4=20M

1. Write about structure of HTML Document with an example?
2. Explain about lists in HTML?
3. Write about java script statements?
4. Write about Rollover buttons?
5. Describe XML Elements?
6. Write the syntax of EL and EL variables?

Section-B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. 5 X 10=50M

7. Explain about hyper links? Write about how to link another pages
8. What is Form? Explain about forms with examples
9. What is CSS? How to design Cascading style sheet
10. Explain about Mathematical Functions
11. Explain about Regular Expressions
12. Write about Data validations in DHTML
13. Explain about Document Object Model
14. Explain about JSP Lifecycle with neat diagram

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COMPUTER SCIENCE	CCSC-507C	2020-'21	B.COM(CA)

SEMESTER – VI PAPER – VII Max. Marks 70 Pass Marks 28

Guidelines for paper setting '**WEB TECHNOLOGIES'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

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(With Effect from Academic Year 2019-'20)

COMPUTER SCIENCE	CSC-301C	2020-21	B.Sc.(MPCs, MCCs.)

SEMESTER – III PAPER – III Max. Marks 70 Pass Marks 28

Syllabus OBJECT ORIENTED PROGRAMMING USING JAVA Total Hrs: 60

NO. Of. Hours: 4 Credits: 3

UNIT-I 15Hrs

Fundamentals of Object – Oriented Programming: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: **Overview of Java Language**: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. **Constants, Variables & Data Types:** Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Type casting, Getting Value of Variables; **Operators & Expressions**.

UNIT-II 15 Hrs

Decision Making & Branching: Introduction, Decision making with if statement, Simple if statement, if-Else statement, Nesting of if-else statements, the else if ladder, the switch statement, the conditional operator. **Looping**: Introduction, While statement, do-while statement, for statement, Jumps in loops. **Classes, Objects & Methods**: Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods;

UNIT-III 10 Hrs

Inheritance: Extending a Class, Overriding Methods, Final Variables and Methods, Final Classes, Abstract Methods and Classes; **Arrays, Strings And Vectors:** Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes; **Interfaces**: **Multiple Inheritance**: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;

UNIT-IV 10 Hrs

Multithreaded Programming: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface.

Managing Errors And Exceptions: Types of errors: Compile-time errors, Runtime errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement,

UNIT-V 10 Hrs

Applet Programming: local and remote applets, Applets and Applications, Building Applet code, Applet Life cycle: Initialization state, Running state, Idle or stopped state, Dead state, Display state. **Packages:** Introduction, Java API Packages, Using System Packages, Namingconventions, Creating Packages, Accessing a Package, using a Package. **Managing Input/ Output Files in Java:** Introduction, Concept of Streams, Stream classes, Byte Stream Classes, Input Stream Classes, Output Stream Classes, Character Stream classes: Reader stream classes, Writer Stream classes, Using Streams;

Prescribed Text Book:

1. E.Balaguruswamy, Programmingwith JAVA, A primer, 3e, TATA McGraw-Hill Compan

Reference Books

1. Programming In Java By Sachin Malhotra And Saurabh Choudhary From Oxford UP
2. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press
3. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series,
4. Deitel&Deitel. Java TM: How to Program, PHI (2007)
5. Java Programming: From Problem Analysis to Program Design- D.S Mallik

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COMPUTER SCIENCE	CSC-301C	2020-21	B.sc(MPCs,MCCs)

SEMESTER – III PAPER – III Max. Marks 70 Pass Marks 28

Syllabus: OBJECT ORIENTED PROGRAMMING USING JAVA

Total Hrs: 60 NO. Of. Hours: 4 Credits: 3

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4*5=20M

1.Explain the structure of a java program?

2.Explain different data types in java?

3.Explain about Constructors?

4.Differences between arrays and vectors?

5.Explain about Exception handling?

6.Explain the applet life cycle?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks 5*10=50M

7.Explain the Concepts of Object-Oriented Programming?

8.Explain java Features?

9.Explain Looping statements with example

10.Explain Method overloading with an example program

11.Explain about inheritance

12.Explain the concept of interface?

13.Explain life cycle of a thread?

14.Explain about Byte Stream Classes?

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COMPUTER SCIENCE	**CSC-301C**	**2020-21**	**B. Com (CA)**

SEMESTER – III **PAPER – III** **Max. Marks 70** **Pass Marks 28**

Syllabus **OBJECT ORIENTED PROGRAMMING USING JAVA**

Total Hrs: 60 **NO. Of. Hours: 4** **Credits: 3**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

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COMPUTER SCIENCE	**CSC-301C**	**2020-21**	**B.Sc.(MPCS&MCCS)**

SEMESTER – III **PAPER – III** **Max. Marks:50**

Lab List OBJECT ORIENTED PROGRAMMING USING JAVA **Pass Marks 25**

No. of Hours per week: 2 **External: 25** **Internal: 25** **Credits: 2**

1.Write a program to perform various String Operations

2.Write a program to print the given number is Armstrong or not?

3.Prompt for the cost and selling price of an article and display the profit (or) loss

4.Write a program to print the numbers given by command line arguments

5.Write a program on class and object in java

6.Illustrate the method overriding in JAVA

7.Write a program to find the Simple Interest using Multilevel Inheritance

8.Write a program to display matrix multiplication.

9.Write a program to implement Exception handling

10.Write a program to create packages in Java

11.Write a program on interface in java

12.Write a program to Create Multiple Threads in Java

13. Write a program to assign priorities to threads in java

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(With Effect from Academic Year 2019-'20)

COMPUTER SCIENCE	**ICT-II-301C**	**2020-'21**	**B.A, B.Com, B.Sc.**

SEMESTER – III PAPER – II Max. Marks 50 Pass Marks 20 Total Hrs 30

Syllabus Internet Fundamentals and Web Tools NO. Of Hrs: **2 Credits**: **2**

Unit-I : 6Hrs

Fundamentals of Internet : Networking Concepts, Data Communication – Types ofNetworking, Internet and its Services, Internet Addressing – Internet Applications –Computer Viruses and its types – Browser – Types of Browsers.

Unit-II: 6Hrs

Internet applications: Using Internet Explorer, Standard Internet Explorer Buttons,Entering a Web Site Address, Searching the Internet – Introduction to SocialNetworking: twitter, tumbler, LinkedIn, face book, flicker, Skype, yelp, vimeo, yahoo,Google+, YouTube, WhatsApp, etc.

Unit-III : 6Hrs

E-mail : Definition of E-mail - Advantages and Disadvantages – User-Ids, Passwords,Email Addresses, Domain Names, Mailers, Message Components, MessageComposition, Mail Management, Email Inner Workings.

Unit IV: 6Hrs

WWW- Web Applications, Web Terminologies, Web Browsers, URL – Components ofURL, Searching WWW – Search Engines and Examples

Unit-V : 6Hrs

Basic HTML: Basic HTML – Web Terminology – Structure of a HTML Document –HTML, Head and Body tags – Semantic and Syntactic Tags – HR, Heading, Font,Image and Anchor Tags –Different types of Lists using tags – Table Tags, Imageformats – Creation of simple HTML Documents.

Reference Books :

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e - by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

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(With Effect Form Academic Year 2019-'20)

COMPUTER SCIENCE	ICT-II-301C	2020-'21	B.A, B.Com, B.Sc.

SEMESTER – III PAPER – II Max.Marks 50 Pass Marks: 20 Total: 30 Hrs

Modal Paper: Internet Fundamentals and Web Tools NO. Of Hrs: 2Credits: 2

Section- A

Answer FOUR Questions. Each Question carries FIVE marks. 4X5=20M

1. Explain types of Browsers?
2. Explain Internet Applications.
3. Write a short note on Internet Explorer?
4. Explain User Id and Password of e-mail?
5. Explain Advantages and disadvantages of electronic mail.4
6. Explain about WWW?
7. Explain briefly about web application.
8. Explain Head and Body tags in HTML Document?

Section- B

Answer Any THREE Questions. Each Question carries TEN Marks. 3×10=30M

9. Explain types of Networking?
10. Explain Internet Services?
11. Explain any 10 Social Net Working Sites
12. Explain Message Composition.
13. Explain different types of Search Engines.
14. Explain different lists in HTML.

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COMPUTER SCIENCE	ICT-II-301	2020-'21	B.A, B.Com, B.Sc.

SEMESTER – III PAPER – II Max. Marks 50

Guidelines for paper setting **'INTERNET FUNDAMENTALS AND WEB TOOLS'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

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COMPUTER SCIENCE	**CCSC-303C**	**2020-'21**	**B.Com. (C.A)**

SEMESTER – III PAPER – III Max. Marks 70 Pass Marks 28 Total Hrs: 60

Syllabus Office Automation Tools NO. Of. Hours: 5Credits:4

Unit-I: 12Hrs

MS-Excel: features of Ms-Excel, Parts of MS-Excel window, entering and editing data in worksheet, number formatting in excel, different cell references, how to enter and edit formula in excel, auto fill and custom fill, printing options.

Unit-II: 12 Hrs

Formatting options: Different formatting options, change row height, formulae and Functions,

Functions: Meaning and advantages of functions, different types of functions available in Excel.

Unit-III: 12Hrs

Charts: Different types of charts, Parts of chart, chart creation using wizard, chart operations, data maps, graphs, data sorting, filtering. Excel sub totals, scenarios, what-if analysis.

Macro: Meaning and advantages of Macros, creation, editing and deletion of macros - Creating a macro, how to run, how to delete a macro.

Unit-IV: 12Hrs

MS Access: Creating a Simple Database and Tables: Features of Ms-Access, Creating a Database, Parts of Access. **Tables:** table creation using design view, table wizard, data sheet view, import table, link table. **Forms:** The Form Wizard, design view, columnar, tabular, data sheet, chart wizard.

Unit- V: 12Hrs

Finding, Sorting and Displaying Data: Queries and Dynasts, Creating and using select queries, Returning to the Query Design, Multi-level sorts, Finding incomplete matches, showing All records after a Query, saving queries - Crosstab Queries. **Printing Reports:** Form and Database Printing..

Reference Books:

1.Ron Mansfield, Working in Microsoft Office, Tata McGraw Hill(2008)

2.Ed Bott, Woody Leonhard, Using Microsoft Office 2007, Pearson Education(2007)

3. Sanjay Saxsena, Microsoft Office, 4.Microsoft Office, BPB Publications

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COMPUTER SCIENCE	CCSC-303C	2020-'21	B.Com. (C.A)

SEMESTER – III PAPER – III Max. Marks 70 Pass Marks 28 Total Hrs: 60

Model PaperOffice Automation Tools NO Of Hours: 5 Credits: 4

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4*5=20M

1. Explain Features of Excel?
2. What are advantages of Functions?
3. Explain what is sorting?
4. Explain how to delete Macro?
5. Write any 5 Features of Access?
6. Describe Query used in MS-Access?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks. 5*10=50M

7. Explain Parts of Excel Sheet with neat Diagram.
8. Explain AutoFill and Custom Fill Options in Excel.
9. Explain different types of Functions available.
10. Explain different Formatting options.
11. What is Chart? Explain different types of Charts.
12. What is Macro? Explain Creating and Editing of Macro.
13. What is Form? Explain Creating Form using Form Wizard.
14. Explain How to Create a Query, Showing, all records after Query and Saving Query.

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An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CCSC-303C	2019-'20	B.Com. (C.A)

SEMESTER – III PAPER – III Max. Marks 70

Guidelines for paper setting '**OFFICE AUTOMATION TOOLS'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

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COMPUTER SCIENCE	CCSC-303P	2020-'21	B.Com. (C.A)

SEMESTER – III PAPER – III Max. Marks 50 Pass Marks 20 Total Hrs: 30

Lab list Office Automation Tools

Ms-Word

1. Create a vesting Card
2. Create a template for organization using Header & Footer
3. Mail merge Procedure

Ms-Excel

1. Create an electronic spreadsheet in which you enter the following decimal numbers and convert into Octal, Hexadecimal and Binary numbers vice versa. Decimal Numbers: 35, 68, 95, 165, 225, 355, 375, 465. Binary Numbers: 101, 1101, 111011, 10001, 110011001, 111011111.

2. The ABC Company shows the sales of different products for 5 years. Create column chart, 3D-column and Bar chart for the following data
YEAR PRODUCT-1 PRODUCT-2 PRODUCT-3 PRODUCT-4
2003 1000 800 900 10002004 800 80 500 9002005 1200 190 400 8002006 400 200 300 1000
2007 1800 400 400 1200

3. Create a suitable examination data base and find the sum of the marks(total) of each student and respective class secured by the student rules:
Pass if marks in each subject >=35
Distinction if average>=75
First class if average>=60 but <75
Second class if average>=50 but <60
Third class if average>=35 but <50
Fail if marks in any subject is <35
Display average marks of the class, subject wise and pass percentage

4. Create an electronic spread sheet in which you enter date and time functions in Excel

5. Create a electronic spread sheet in statistical and mathematical functions in Excel

MS-PowerPoint

1. Make a Power point presentation on your strengths, weaknesses, hobbies, factors that waste your time.

2. Make a Power point presentation to represent your College profile.

3. Make a Power point presentation of all the details of the books that you had studied in B.Sc. First Year.

4. Create a Presentation without Animation.

MS-ACCESS

1. Create a database using MS-ACCESS with at least 5 records table1 structure: register number , name, dob, gender, class table2 structure: register number m1 m2 m3 m4 m5 total maintain the relationship between two tables with register number as a primary key and answer the following quarries: show the list of students with the following fields as one query register number name gender total marks

2. Maintain the relationship between above two tables with register number as a primary key and answer the following reports: reports must have following columns report1 with register number, name, marks of all subjects and 90 hrs (3 hrs/ week) computer science 10 of 44 total report2 with register number, total , percentage.

3. Create a database using ms-access with at least 5 records table1 structure: emp-code emp-name age gender dob table2 structure: emp-code basic-pay maintain the relationship between two tables with emp-code as a primary key generate the following reports: report1: emp-code emp-name basic-pay da,hra gross-salary report2: emp-code emp-name age gender gross-salary

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COMPUTER SCIENCE	CSC-101C	2020-'21	B.Sc (MPCs & MCCs)

SEMESTER – I **PAPER – I** **Max. Marks 70**

Syllabus: Problem Solving in 'C'

NO of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

UNIT-I: General Fundamentals& Programming Languages **10Hrs**

General Fundamentals: Introduction to computers: Block diagram of a computer, characteristics and limitations of computers, applications of computers, types of computers, computer generations.

Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms, Flow Charts, **Programming Languages** – Generations of Programming Languages – Structured Programming Language- Design and Implementation of Correct, Efficient and MaintainablePrograms.

UNIT- II: Introduction To C & Decision Making control Statements **12Hrs**

Introduction to C: Introduction – Structure of C Program – Writing the first C Program – File used in C Program – Compiling and Executing C Programs – Using Comment , Keywords – Identifiers – Basic Data Types in C – Variables – Constants – I/O Statements in C-Operators in C- Programming Examples.

Decision Control and Looping Statements: Introduction to Decision Control Statements– Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – Goto Statement.

UNIT III: Arrays **10 Hrs**

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array– Operations on Arrays – one dimensional, two dimensional and multi dimensional arrays, character handling and strings.

UNIT-IV:Functions & Structures **13Hrs**

Functions: Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive functions.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arrays of Structures – Structures and Functions– Union – Arrays of Unions Variables – Unions inside Structures – Enumerated DataTypes.

UNIT-V:**Pointes&Files** **15Hrs**

Pointers: Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables – Pointer Expressions and Pointer Arithmetic – Null Pointers -– Memory Allocation in C Programs – Memory Usage – Dynamic Memory Allocation – Drawbacks of Pointers

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data to Files – Detecting the End-of-file – Error Handling during File Operations – Accepting Command Line Arguments.

BOOKS

1. E Balagurusamy – Programming in ANSIC – Tata McGraw-Hillpublications.
2. Brain W Kernighan and Dennis M Ritchie - The 'C' Programming language" - Pearsonpublications.
3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publications.
4. YashavantKanetkar - Let Us 'C' – BPBPublications.

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COMPUTER SCIENCE	**CSC-101C**	**2020-'21**	**B.Sc(MPCs, MCCs)**

SEMESTER – I PAPER – II Max. Marks 70 Pass Marks 28

Syllabus Problem Solving in 'C' NO. Of. Hours: 4 Credits:3

Section- A

Answer FOUR Questions. Each Question carries FOUR Marks. 4*5=20M

1. Explain different types of programming languages?
2. Explain about Data types in C?
3. Write about Break and Continue Statement?
4. Explain one dimensional array with example?
5. Explain Storage Classes in C?
6. Explain dynamic memory allocation?

Section- B

Answer FIVE the Questions. Each Question carries EIGHT Marks 5*10=50M

7. Draw and Explain Block Diagram of Computer?
8. Explain about Algorithm and Flowchart with Examples?
9. Explain decision making Looping statements with examples?
10. Explain Structure of C Program with Example?
11. Write about two dimension arrays? Give an example program?
12. Write Passing Parameters Techniques in Functions?
13. Difference between structures and unions?
14. What is File? Explain different File Modes?

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COMPUTER SCIENCE	CSC-101C	2020-'21	B.Sc(MPCs,MCCs)

SEMESTER – I PAPER – I Max. Marks 70

Guidelines for paper setting '**Problem Solving in C'**

Unit wise weight age of Marks	Section-A (Short answer questions)	Section-B (essay questions)
Unit-I	1	2
Unit-II	2	2
Unit-III	1	1
Unit-IV	1	2
Unit -V	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

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COMPUTER SCIENCE	CSC-101P	2020-'21	B.Sc. (MPCs, MCCs.)

SEMESTER – I PAPER – I Max. Marks: 50 Pass Marks 25

No. of Hours per week: 2 External: 25 Internal: 25 Credits: 2

Lab List:Problem solving in C LAB

1. Write a program to check whether the given number is Armstrong ornot.
2. Write a program to find the sum of individual digits of a positiveinteger.
3. Write a program to generate the first n terms of the Fibonaccisequence.
4. Write a program to find both the largest and smallest number in a list of integervalues
5. Write a program to demonstrate refection of parameters in swapping of two integer values using **Call by Value** &**Call byAddress**
6. Write a program that uses functions to add twomatrices.
7. Write a program to calculate factorial of given integer value using recursivefunctions
8. Write a program for multiplication of two N X Nmatrices.
9. Write a program to perform various stringoperations.
10. Write a program to search an element in a given list ofvalues.
11. Write a program to sort a given list of integers in ascendingorder.
12. Write a program to calculate the salaries of all employees using ***Employee (ID, Name, Designation, Basic Pay, DA, HRA, Gross Salary, Deduction, Net Salary)*** structure.
    DA is 30 % of BasicPay
    HRA is 15% of BasicPay
    Deduction is 10% of (Basic Pay +DA)
    Gross Salary = Basic Pay + DA+HRA
    Net Salary = Gross Salary -Deduction
13. Write a program to illustrate pointerarithmetic.
14. Write a program to read the data character by character from afile.
15. Write a program to create ***Book (ISBN, Title, Author, Price, Pages, Publisher)***structure and store book details in a file and perform the following operations
    Add bookdetails
    Search a book details for a given ISBN and display book details, ifavailable
    Update a book details usingISBN
    Delete book details for a given ISBN and display list of remainingBooks

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COMPUTER SCIENCE	**CCSC-103C**	**2020-'21**	**B.Com(CA)**

SEMESTER – I **PAPER – I** **Max. Marks 70**

Syllabus: INTRODUCTION TO INFORMATION TECHNOLOGY

NO of Hours: 4 **No Of Credits: 3** **Pass Marks 28**

Unit – I: Database Systems Introduction Computer Basics **13H'rs**

Introduction, Evolution of Computers, Generations of Computers, Classification of Computers, Computer Concepts, Applications Of Computers, Central Processing Unit.

Memory Representation:

Random Access Memory, Read Only Memory, Magnetic Tape, Magnetic Disk, Types of Magnetic Disks, Types of Optical Disk, USB.

UNIT-II: Input/output Devices &Operating Systems 15H'rs

Input/output Devices: Types of Input Devices, Types Of Output Devices, Programming Languages: Types of Programming Languages, Generations of Programming Languages

Software: Definition Of Software, Relationship Between Software And Hardware, Categories Of Software**,**

Operating Systems: Introduction, Types of Operating Systems

UNIT-III: Information Technology&Internet Applications: **12H'rs**

Information Technology: Components Of Information Technology**,** Role Of Information Technology, Information Technology In Business, Manufacturing, Mobile Computing, Public Sector, Defence Sectors, Media, Education, Publication.

Internet Applications: Evolution Of Internet, Basic Internet Terms, Internet Applications.

Introduction, E-mail, Information Browsing Service, The World Wide Web, Information Retrieval from the World Wide Web, Other Facilities Provided by Browsers, Audio on the Internet, Pictures, Animation and Video viaInternet

UNIT-IV: Data Communications **10H'rs**

Introduction, Data Communication, Components Of Data Communication, Data Transmission Mode, Analog To Digital Data Transmission, Data Communication Measurement, Transmission Media, Guided/Wired Media, Unguided/Wireless Media.

UNIT-V: Computer Networks: **10H'rs**

Introduction to Computer Networks, Types of Computer Networks, Network Topologies, OSI Model, TCP/IP Model.

Text Book:

1. Introduction To Information Technology (Second Edition) , Pearson, ITI Education Solutions Limited.
2. Introduction of Information Technology, by V. Rajaraman, PHI Learning Private Limited.

Reference Book:

1. Fundamentals Of Computers, Balagurusamy, McGraw Hill Education (India) Private Limited.
2. Fundamentals Of Computers , Reema Thareja Oxford University

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COMPUTER SCIENCE	**CCSC-103C**	**2020-'21**	**B.Com(CA)**

SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28

Syllabus:INTRODUCTION TO INFORMATION TECHNOLOGY

NO. Of. Hours: 4Credits:3

Section- A

Answer <u>FOUR</u> Questions. Each Question carries FOUR Marks. 4*5=20M

1. What are the Applications of Computer?
2. Explain the types of Programming Languages?
3. What is Software? Explain Different Categories of Software?
4. What is the Role of Information Technology (IT)?
5. What are the components of Data Communication?
6. Explain different types of Topologies?

Section- B

Answer <u>FIVE</u> the Questions. Each Question carries EIGHT Marks 5*10=50M

7. What is Computer? Explain the classification Computer?
8. What is Memory? Explain different types of Memories?
9. Explain different types of Input & Output Devices?
10. What is an Operating System? Explain different types of Operating System?
11. What are the Components of Information Technology (IT)?
12. Write a Procedure to create an E-Mail?
13. Explain Data Transmission Modes?
14. Explain about OSI Model?

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COMPUTER SCIENCE	**CCSC-103C**	**2020-'21**	**B.Com(CA)**

SEMESTER – I **PAPER – I** **Max. Marks 70**

Guidelines for paper setting IIT

Unit wise weight age of Marks	Section-A (Short answer questions)	Section-B (essay questions)
Unit-I	1	2
Unit-II	2	2
Unit-III	1	2
Unit-IV	1	1
Unit -V	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

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COMPUTER SCIENCE	**CCSC-103C**	**2020-'21**	B.Com. (C.A)

SEMESTER – I PAPER – I Max. Marks 50 Pass Marks 20

Lab List Introduction to Information Technology & Internet NO Of Hours: 2 Credits: 2

1. Introduction to Computers.
2. Block Diagram of a Digital Computer
3. Memory Devices
4. Software & Hardware
5. MS-DOS.
    b) Internal Commands
    c) External Commands
6. Windows.
7. MS-Word:
    a) Creating a letter pad.
    b) Creating a visiting card.
    c) Prepare a time table.
    d) Header & footers
    e) Mail Merge.

8. MS-Power Point:
    a) Power point presentation for Fourth National Games.
    b) Power point presentation for Indian Education System.
    c) Power point presentation to represent your College profile.
    d) Power point presentation using Multimedia.
    e) Power point presentation to represent your department
9. How to create E-mail, Information Browsing Service
10. World Wide Web, Information Retrieval from the World Wide Web
11. Data Transmission Modes
12. Network Topologies

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF COMPUTER SCIENCE

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

18-04-2020

Minutes of the meeting of Board of Studies in Computer Science for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 18-04-2020 through Online Video Conference Cisco WebEx Meeting

Sri T.Naga PrasadaRao ..... Presiding

Members Present:

1)..... (T.NagaPrasadaRao)	Chairman	Head, Department of Computer Science, AG&SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
2)..... (Dr. R.Kiran Kumar)	University Nominee	Professor, Dept of Computer Science, Krishna University, Machilipatnam.
3)..... (Dr. Suresh Sundaradasu)	Academic Council Nominee	Head, Department of Computer Science& Engineering, Dhanekula Institute of Engineering & Technology, Ganguru, JNTU(K), Vijayawada.
4)..... (Dr. K Bhagvan)	Academic Council Nominee	Professor, Department of Computer Science K.B.N College, Vijayawada.
5)..... (R. Sowjanya)	Industrial Excepert	.Net Developer, Mavensoft Systems Private limited Madaapur, Hyderabad.
6)..... (K Srikanth)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165.
7)..... (T.Keerthi)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
8)..... (A. Sravani)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
9)..... (S.Prabhavathi)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
10)..... (V. N. MalleswaraRao)	Member	Lecturer in Computer Science,AG&SG Siddhartha Degree College of Arts &Science, Vuyyuru-521165
11)..... (A.Preethi)	Member	Student in M.Sc. Computer Science, AG& SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165
12)..... (A GirijaSuma)	Member	Student in B.Sc. Computer Science, AG&.SG Siddhartha Degree College of Arts & Science, Vuyyuru-521165

Agenda for B.O.S Meeting.

1. To recommend syllabi for VI Semester of III year Degree B.Sc.(MPCs, MCCs.) & B.Com (C.A). As per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.
2. To recommend the Model Question Papers, Lab programs list and Blue print of Semester of III year Degree B.Sc. (MPCs, MCCs.)&B.Com (C.A). As per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

3. To recommend the Guidelines to be followed by the question paper setters in Computer Science for III year Degree B.Sc.(MPCs, MCCs.)&B.Com (C.A). As per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

4. To recommend any changes in the syllabi for II, IV, VI Semesters of I, II, III year Degree B.Sc.(MPCs, MCCs) and B.Com.(C.A.).

5. To recommend the teaching and evaluation methods to be followed under Autonomous status.

6. To recommend the certificate courses for all Computer Science and Non-Computer Science students any suggestions regarding seminars, workshops, Guest lecturers to be organized.

7. To recommend the panel of paper setters and examiners to the controller of the examinations of autonomous courses of AG & SG Siddhartha Degree College of Arts & Science College, Vuyyuru.

8. Any other matter
   - To be proposed to introduce new course for B.Sc. Program (MSCs) in the Academic year 2021-22.

Resolutions

1) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for VI Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), Course under Choice Based Credit System with Effect from Academic Year 2020-21.

2) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement Model Question Papers, Lab Programs List and blue print for VI Semester of III year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), Courses under Choice Based Credit System with Effect from Academic Year 2020-21.

3) Discussed and recommended the guidelines to be followed by Question Paper Setters in Computer Science for IV Semester of II year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), Courses under Choice Based Credit System With Effect From Academic Year 2020-21.

4) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for II Semester of I Year Degree B.Sc. (MPCs, MCCs.), B.Com (C.A.), and Course under Choice Based Credit System with Effect from Academic Year 2020-21.

- Discussed and recommended the NO changes in the syllabi for IV Semester of II Year B.Sc. (MPCs, MCCs) & B.Com.(CA)., VI Semester of III Year B.Sc. (MPCs, MCCs) & B.Com.(CA).

5) Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2020-21.

- **To recommeded the NEW COURCES INTRODUCED in II &IV SEM these are**
  - **II sem-B.A,BCOM,BSC- INFORMATION & COMMUNICATION TECHNOLOGY.**
  - **IIsem-BCOM(CA)- E-COMMERCE & WEB DESIGNING.**
  - **IVsem-BCOM(CA)-PROGRAMMING IN C**
  - **REMAINING IV AND VI Sem Papers are same as 2019.**

→Discussed and recommended the teaching and evaluation methods for approval of Academic Council.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. Using of LMS and LCD projector to display on power board etc..for better understanding of concepts.

Evaluation of a student is done by the following procedure:

There are two components in the Valuation and Assessment of a student – Internal Assessment (**IA**) Semester Examinations (**SE). For the Batch of Students Admitted from 2018-19**.

Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory; and for practical papers 50 Marks.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of

assignments/ quiz/ seminars /PPT/Online- assignments/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation.

- For attendance 5 Marks are allotted.
- The semester examination will be of 3 hours with maximum 70 marks.
- There are no passing minimum marks for IA.

Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration & Foundation course 2 hours irrespective of the number of credits allotted to it.
- If a candidate fails to obtain pass marks even after the due to less mark in the IA examination, the marks of the next examination will be converted to be out of 100.
- Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The maximum marks for each Paper shall be 100.

Question paper guide lines for Practical Examinations at the end of Semesters II, IV & VI

Two Practical Programs to be conducted out of 15 programs at the end of Semester II, IV&VI

Practical Examination time 3Hrs and Maximum Marks 50

Scheme of valuation Semesters – II, IV&VI B.Sc.(MPCs, MCCs) & B.Com.(C.A).

Computer Science Practical's - External (Time: 3 hrs.) **Total Marks: 25M**

1. Programs Writing (2)	:	10 marks,
2. Viva voice	:	5 marks
3. Execution & Result	:	10 marks
Total Marks	` :	25

Computer Science Practical's- Internal **Total Marks: 25M**

1. Attendance	:	5 marks
2. Record	:	10 marks
3. Day to day observation	:	5 marks
4. Problem solving and Execution	:	5 marks
Total Marks	:	25

6.) Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council. Discussed and recommended to conduct certificate courses for Computer Science and Non-Computer Science students separately like TALLY ACCOUNTING PACKAGE, ADOBE PHOTOSHOP, DESKTOP PUBLISHING, COMPUTER HARDWARE AND NETWORKING, WEB DESIGNING, OPERATING SYSTEMS, ETC...

7) Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.

8). We implemented online certificate courses such as NPTL, APSSDC - PYTHON, R- Programming, Amazon Web services and JAVA ------etc. To fill the curriculum gaps from II year Degree on words

9) Discussed and Recommend to introduce Value Added Course in "**BASIC COMPUTER APPLICATIONS & MS OFFICE**" with Course Code "**BCAM101**" for 1ST MPC's & MCC's -1ST SEM

10) Discussed and Recommend to introduce Value Added Course in "**AWS**" with Course Code "**VACAWS-01**" for II MPC's &MCC's-3rd SEM

11) Discussed and Recommend to introduce Value Added Course in "**CLOUD COMPUTING**" with Course Code "**VACCC12**" for IIIBCOM(CA)-5TH SEM

12). Suggestions

Chairman

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COMPUTER SCIENCE	CSC-601(GE)	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI PAPER – VII Max. Marks 70

Syllabus **WEB TECHNOLOGIES**

NO of Hours: 4 **No of Credits: 3** **Pass Marks 28**

Course Objectives:

1. To provide knowledge on web architecture, web services, client side and server side scripting technologies to focus on the development of web-based information systems and web services.
2. To provide skills to design interactive and dynamic web sites.

COURSE OUTCOMES:

CO1: Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.
CO2: Understand to style a webpage using CSS and Basic Concepts of Java Scripts.
CO3: Understand to style a webpage Using Objects in Java Script and DHTML.
CO4: Understand the Basic Concepts of XML and Defining Data for Web Applications.
CO5: Understand the Concepts of JS.

Unit -I Introduction to XHTML: **12 Hrs**

Introduction to HTML, Basic html, Document body text, Hyper links, Adding more formatting Lists, Tables, Images, Multimedia Objects, Frames, Forms and XHTML.

Unit- II: CSS: **12 Hrs**

Cascading Style Sheets: Introduction, Defining your own styles, properties and values in styles, Formatting blocks of information, Layers.
Java Script: java Script, the basics, Variables, String Manipulations, Mathematical functions, Statements, Operators, Arrays, Functions.

Unit –III: Objects in Java Script & Dynamic HTML with Java Script **12 Hrs**

Objects in Java Script*:* Data and objects in java script, Regular expressions, Exception Handling, Built in objects, Events.
Dynamic HTML with Java Script*:* Data validation, Opening a new window, Messages and Confirmations, The status bar, writing to a different frame, Rollover buttons, Moving images, multiple pages in a single download, A text-only menu system, Floating logos.

Unit –IV: XML Defining Data for Web Applications **12 Hrs**

XML*:* Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, presenting XML, Using XML parser.

UNIT-V: **12 Hrs**

JSP: JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

Prescribed Books:

1. Chris Bates, Web Programming Building Internet Application, Second Edition, Wiley (2007)
2. Head First Servlets and JSP 2nd Edition, Bryan Basham, Kathy Sierra
3. Uttam Kumar Roy, Web Technologies from Oxford University Press

Student Activities:

1. Prepare a web site for your college

2. Prepare your personal website

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
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(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	CSC-601(GE)	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI **PAPER – VII Max. Marks 70**

Model Paper **WEB TECHNOLOGIES**

No Of Hours: 4 **No of Credits: 3** **Pass Marks 28**

Section -A

Answer **FOUR** Questions. Each Question carries **FIVE** Marks. **4X 5=20M**

1. Write about structure of HTML Document with an example?
2. Explain about lists in HTML?
3. Write about properties used in Style Sheet?
4. Write about Rollover buttons?
5. Describe XML Elements?
6. Write the syntax of EL and EL variables?

Section- B

Answer **FIVE**Questions. Each Question carries **TEN** Marks **5 X 10=50M**

7. Explain about hyper links? Write about how to link another pages?
8. What is Form? Explain about forms with examples?
9. What is CSS? How to design Cascading style sheet?
10. Explain about Mathematical Functions?
11. Explain about Regular Expressions?
12. Write about Data validations in DHTML?
13. Explain about Document Object Model?
14. Explain about JSP Lifecycle with neat diagram?

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COMPUTER SCIENCE	CSC-601(GE)	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI PAPER – VII Max. Marks 70 Pass Marks 28

Guidelines for paper setting 'WEB TECHNOLOGIES'

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

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COMPUTER SCIENCE	CSC-601(GE)	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI **PAPER – VI** **Max. Marks 50**

Lab List **WEB TECHNOLOGIES** **Pass Marks: 20**

No. of Hours per week: 2 **External: 25** **Internal: 25** **Credits: 2**

1. Write an HTML program to demonstrate text formatting, working with images and hyper links
2. Write an HTML program to create Student Marks sheet preparation.
3. Write an HTML program to explain String manipulation-using functions.
4. Write an HTML program to explain <form> events
5. Write an HTML program to perform all arithmetic operations using java script.
6. Develop a HTML Form, which accepts any Mathematical expression. Write JavaScript code to Evaluates the expression and Displays the result.
7. Create a form for Student information. Write JavaScript code to find Total, Average, Result and Grade.
8. Create a form for Employee information. Write JavaScript code to find DA, HRA, PF, TAX, Gross pay, Deduction and Net pay.
9. Create a form consists of a Multiple choice questions that validates the answer dynamically and displaying result using java script.
10. Write a java script to work with following

a. Date display b. Calendar c. Copy Selected Text

b. IP Address

(With Effect from Academic Year 2020-21)

COMPUTER SCIENCE	CSC-602CE	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI **PAPER – VIII** **Max. Marks: 70**

Syllabus PHP, MySQL & Word Press

NO Of Hours:4 Credits: 3 **Pass Marks 28**

Course Objective: To introduce the concept of PHP and to give basic Knowledge of PHP. Learn about PHP Syntax., Arrays, PHP Loops, PHP and MySQL connectivity, PHP form validation, PHP form handling. Overview of MySQL and PHPMyAdmin, Understand basic concepts of how a database stores information via tables, Understanding of SQL syntax used with MySQL, Learn how to retrieve and manipulate data from one or more tables, Know how to filter data based upon multiple conditions, Updating and inserting data into existing tables, Learning how the relationships between tables will affect the SQL, The advantages of store procedures with storing data using variables and functions, How SQL can be used with programming languages like PHP to create dynamic websites for visitors, Review of some sample PHP projects interacting with MySQL.

COURSE OUTCOMES:

CO1: Understand the concepts Of PHP and MY SQL Installations.
CO2: Able to know the basic concepts Function and Working with Functions.
CO3: Understand the concepts of FORMS and working with FORMS.
CO4: understand the concepts of MY SQL and MY SQL Components.
CO5: Able to know the concepts of WORD PRESS.

UNIT-1: **Installing and Configuring MySQL**: **10 Hrs**

Current and Future Versions of MySQL, How to Get MySQL, Installing MySQL on Windows, Trouble Shooting your Installation, Basic Security Guidelines, Introducing MySQL Privilege System, Working with User Privileges. Installing and Configuring Apache: Current and future versions of Apache, Choosing the Appropriate Installation Method, Installing Apache on Windows, Apache Configuration File Structure, Apache Log Files, Apache Related Commands, Trouble Shooting. Installing and Configuring PHP: Building PHP with Apache on Windows, php.ini. Basics, The Basics of PHP scripts. The Building blocks of PHP: Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output.

Unit – II: Working with Functions: **10 Hrs**

What is function?, Calling functions, Defining Functions, Returning the values from User-Defined Functions, Variable Scope, Saving state between Function calls with the static statement, more about arguments. Working with Arrays: What are Arrays? Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance Working with Strings, Dates and Time: Formatting strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

Unit – III: Working with Forms: **15 Hrs**

Creating Forms, Accessing Form Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session IDs in the Query String, Destroying Sessions and Unsetting Variables, Using Sessions in an Environment with Registered Users. Working with Files and Directories: Including Files with inclue(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories.

Unit – IV: Introduction to MySQL **15Hrs**

Introduction to My SQLand Interfacing with Databases through PHP Understanding the database design process: The Importance of Good Database Design, Types of Table Relationships, Understanding Normalization. Learning basic SQL Commands: Learning the MySQL Data types, Learning the Table Creation Syntax, Using Insert Command, Using SELECT Command, Using WHERE in your Queries, Selecting from Multiple Tables, Using the UPDATE command to modify records, Using RELACE Command, Using the DELETE Command, Frequently used string functions in MySQL, Using Date and Time Functions in MySQL. Interacting with MySQL using PHP: MySQL Versus MySQLi Functions, Connecting to MySQL with PHP, Working with My SQL Data.

Unit – V:Word press **10Hrs**

Word press: Introduction to word press, servers like wamp, bitnami e.tc, installing and configuring word press, understanding admin panel, working with posts and pages, using editor, text formatting with shortcuts, working with media-Adding, editing, deleting media elements, working with widgets, menus. Working with themes-parent and child themes, using featured images, configuring settings.

References:

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach yourself, Pearson Education (2007).
2. Xue Bai Michael Ekedahl, The web warrior guide to Web Programming, Thomson (2006).

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SEMESTER – VI **PAPER – VIII** **Max. Marks 70**

Model PaperPHP, MySQL & Word Press

NO Of Hours:3 **No Of Credits: 3** **Pass Marks 28**

Section- A

Answer **Four** Questions. Each Question carries **FIVE** Marks. **4*5=20M**

1. Define variable and list the standard data types in PHP?
2. What is Break and Continue statements in PHP?
3. Explain how to create a simple form in PHP?
4. What is Cookie and explain how to accessing cookie in PHP?
5. Describe Update Command in MySQL with Example?
6. Write short notes on Word Press.?

Section- B

Answer **FIVE** Questions. Each Question carries **TEN** Marks **5*10=50M**

7. Explain about Operators and Expressions available in PHP with examples?
8. Explain about Loops and switching statements in PHP with examples?
9. Explain about Arrays and related functions to arrays in PHP with examples?
10. Explain the following Strings functions with example?
    a. a. strlen() b. strstr() c. strpos() d. substr() e. strtok()
11. Explain how to send Mail on form submission in PHP?
12. Explain how to work with Sessions in PHP?
13. Explain how to insert & retrieve data with MySql in PHP?
14. Explain how to work with Themes and also featured images in Word Press?

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SEMESTER – VI PAPER – VIII Max. Marks 70 Pass Marks 28

Guidelines for paper setting 'PHP, MySQL & Word Press '

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us.

COMPUTER SCIENCE	CSC-602CE	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI **PAPER – VIII** **Max. Marks 50**

Lab List PHP, MySQL & Word Press LabPass Marks 20
No. of Hours per week: 3 **External: 25** **Internal: 25** **Credits: 2**

MySQL Lab Cycle

Cycle -1

An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.
Suppliers (sid: Integer, sname: string, address: string)
Parts (pid: Integer, pname: string, color: string)
Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

1. Find the pnames of parts for which there is some supplier.
2. Find the snames of suppliers who supply every part.
3. Find the snames of supplier who supply every red part.
4. Find the pnames of parts supplied by London Supplier abd by no one else.
5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
6. For each part, find the sname of the supplier who charges the most for that part.
7. Find the sid's of suppliers who supply only red parts.
8. Find the sid's of suppliers who supply a red and a green part.
9. Find the sid's of suppliers who supply a red or green part.
10. Find the total amount has to pay for that suppler by part located from London.

Cycle – 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)
Works (eid: integer, did: integer, pct_time: integer)
Dept (did: integer, budget: real, managerid: integer)
An employee can work in more than one department; the pct_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.
2. For each department with more than 20 full time equivalent employees (i.e., where the part-time and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.

3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
5. Find the enames of managers who manage the departments with largest budget.
6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the menagerie's of managers who Control more than 5,000,000.
7. Find the menagerie's of managers who control the highest amount.
8. Find the average manager salary.

PHP Lab Cycle

1. Write a PHP program to Display "Hello"
2. Write a PHP Program to display the today's date.
3. Write a PHP Program to read the employee details.
4. Write a PHP Program to display the
5. Write a PHP program to prepare the student marks list.
6. Write a PHP program to generate the multiplication of two matrices.
7. Write a PHP Application to perform demonstrates the college website.
8. Write a PHP application to add new Rows in a Table.
9. Write a PHP application to modify the Rows in a Table.
10. Write a PHP application to delete the Rows from a Table.
11. Write a PHP application to fetch the Rows in a Table.
12. Develop an PHP application to make following Operations
    i. Registration of Users.
    ii. Insert the details of the Users.
    iii. Modify the Details.
    iv. Transaction Maintenance.
        a) No of times Logged in
        b) Time Spent on each login.
        c) Restrict the user for three trials only.
        d) Delete the user if he spent more than 100 Hrs of transaction.

Wordpress Lab

1. Installation and configuration of word press.
2. Create a site and add a theme to it.

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SEMESTER – VI PAPER – IX Max. Marks 70 Credits: 3 Pass Marks 28

Syllabus Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS NO Of Hours:4

Course Objective: To impart knowledge in designing a webpage in a structured way by using advanced java script i.e., using different scripting languages.

COURSE OUTCOMES:

CO1: Understand the concepts Of HTML and JQUERY
CO2: Write program for JQUERY and CSS Methods using DOM Attributes
CO3: Understand the concepts of JQUERY USER INTERFACE Programs
CO4: Understand the concepts of AJAX and JSON Objects
CO5: Basic concepts of ANGULAR JS and ANIMATIONS

UNIT-1:JQuery – Basics: 10 Hrs

String, Numbers, Boolean, Objects, Arrays, Functions, Arguments, Scope, Built-in Functions. jQuerySelectors: CSS Element Selector, CSS Element ID Selector, CSS Element Class Selector, CSS Universal Selector, Multiple Elements E, F, G Selector, Callback Functions. JQuery – DOM Attributes: Get Attribute Value, Set Attribute Value. JQuery – DOM Traversing: Find Elements by index, filtering out Elements, Locating Descendent Elements, and JQuery DOM Traversing Methods.

Unit – II: jQuery – CSS Methods: 10 Hrs

Apply CSS Properties; Apply Multiple CSS Properties, Setting Element Width & Height, and JQuery CSS Methods. JQuery – DOM Manipulation Methods: Content Manipulation, DOM Element Replacement, Removing DOM Elements, Inserting DOM elements, DOM Manipulation Methods. jQuery – Events Handling: Binding event handlers, Removing event handlers, Event Types, The Event Object, The Event Attributes. JQuery – Effects: JQuery Effect Methods, jQuery Hide and Show, jQuery Toggle, jQuery Slide – slideDown, slideUp, slide Toggle, jQuery Fade – fadeIn, fadeOut, fadeTo, jQuery Custom Animations

Unit – III: Intro to jQuery UI 15 Hrs

, Need of jQuery UI in real web sites, Downloading jQuery UI, Importing jQuery UI, Draggable, Droppable, Resizable, Selectable, Sortable, Accordion, Auto Complete, Button Setϖ, Date Picker, Dialog, Menu, Progress Bar, Slider, Spinner, Tabs, Tooltip, Color Animation, Easing Effects, add Class, remove Class, Effects, jQuery UI themes, Customizing jQuery UI widgets / plug-ins, jQuery UI with CDN, Consuming jQuery Plug-ins from 3rd party web sites jQuery Validations, Intro to jQuery validation plug-in, Using jQuery validation plug-in, Regular expressions.

Unit – IV: Intro to AJAX 15 Hrs

Need of AJAX in real web sites, Getting database data using jQueryAJAX, Inserting, Updating, Deleting database data using jQuery-AJAX Grid Development using jQuery-AJAX Intro to JSON JSON syntax, Need of JSON in real web sites, JSON object, JSON array, Complex JSON objects, Reading JSON objects using jQuery.

Unit – V: Intro to AngularJS 15 Hrs

Need of AngularJS in real web sites, Downloading AngularJS, AngularJS first example, AngularJS built-in directives, AngularJS expressions, AngularJS modules, AngularJS controllers, AngularJS scope AngularJS dependency injection AngularJS, bootstrapping AngularJS data bindings, AngularJS $watch, AngularJS filters, AngularJS events, AngularJS AJAX, Ng-repeat, AngularJS with json arrays, AngularJS registration form and login form, AngularJS CRUD operations, AngularJS Animations, AngularJS validationsϖ AngularJS $q, AngularJS custom values, AngularJS custom services, AngularJS custom directives, AngularJS custom providers, AngularJS Routing, AngularUI Routing.

References:

1. jQuery UI 1.8: The User Interface Library for jQuery by Dan Wellman
2. jQuery Fundamentals by Rebecca Murphey 3. Ajax: The Complete Reference by Thomas A. Powell

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SEMESTER – VI **PAPER – IX** **Max. Marks 70**

Model PaperAdvanced java Script: JQUERY/AJAX/JSON/ANGULAR JS

NO Of Hours:3 **No Of Credits: 3** **Pass Marks 28**

Section- A

Answer **Four** Questions. Each Question carries **FIVE** Marks. **4*5=20M**

1. What is jquery? Write a simple program to display welcome message?
2. Write a jquery-dom attributes?
3. Write a program for jquery fade in, fade out?
4. Discuss in detail about jquery UI categorization?
5. Write a need of AJAX in real websites?
6. Write a short notes angularJS built-in directives?

Section- B

Answer **FIVE** Questions. Each Question carries **TEN** Marks **5*10=50M**

7. Explain in detail about DOM traversing methods?
8. Write about CSS Selectors with examples programs?
9. Write about JQUERY Effects methods with examples programs?
10. Explain detail about jquery-dom manipulation methods?
11. Write a program for droppable, resizable, Draggable using jquery UI?
12. Write about JQUERY Validation Plug-In methods with example programs?
13. How can we manipulate the data in a database using jquery-AJAX?
14. What is angular JS? Need of angular JS in real websites &write any example program?

COMPUTER SCIENCE	CSC-603CE	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI PAPER – IX Max. Marks 70 Pass Marks 28

Guidelines for paper setting'**Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us.

COMPUTER SCIENCE	CSC-603CE	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI **PAPER – IX** **Max. Marks 50**

Lab ListAdvanced java Script: JQUERY/AJAX/JSON/ANGULAR JS **Pass Marks 20**
No. of Hours per week: 3 **External: 25** **Internal: 25**

Credits: 2

1. Using jQuery find all text areas, and makes a border. Then adds all paragraphs to the jQuery object to set their borders red.
2. Using jQuery add the class "w3r_font_color" and w3r_background to the last paragraph element.
3. Using jQuery add a new class to an element that already has a class.
4. Using jQuery insert some HTML after all paragraphs.
5. Using jQuery insert a DOM element after all paragraphs.
6. Convert three headers and content panels into an accordion. Initialize the accordion
   And specify the animate option
7. Convert three headers and content panels into an accordion. Initialize the accordion and specify the height.
8. Create a pre-populated list of values and delay in milliseconds between a keystroke occurs and a search is performed.
9. Initialize the button and specify the disable option.
10. Initialize the button and specify an icon on the button.
11. Initialize the button and do not show the label.
12. Create a simple jQuery UI Datepicker. Now pick a date and store it in a textbox.
13. Initialize the date picker and specify a text to display for the week of the year column heading.

COMPUTER SCIENCE	CSC PROJ-602 P	2020-'21	B.Sc.(MPCs. , MCCs.)

SEMESTER – VI **PROJECT (Java, PHP & MYSQL)** **Max. Marks 100**

OBJECTIVE

The objective of the Project Course is to help the students to study, analyze and design software or utility for different problems or applications. This will improve the skills of software development of the students.

COURSE OUTCOMES:

CO1: Students will get fundamental knowledge to work in emerging/latest technologies.

CO2: They will also learn about theoretical and practical tools/techniques to solve real life problems related to industry, academic institutions and research laboratories.
CO3: Able to know the details of modules and process logic.
CO4: Able to know the details of Testing and Implementation.
CO5: Able to use no. of tools/platforms, Languages.

MARKS FOR PROJECT EVALUATION

The project course will be evaluated for **100** Marks, of which **75** marks are meant for the practical evaluation of a project and **25** marks are allotted for attending viva-voce examination. The passing minimum in the project work will be 50% of the total mark. i.e. the student should get minimum 50% marks in the project evaluation and the viva-voce examination. Thus, the minimum mark the student is required to obtain is 50 out of 100 marks.

COMPUTER SCIENCE	CCSC-605CE	2020-21	B.Com (C.A)

SEMESTER –VI **PAPER – IX** **Total: 60 Hrs**

Syllabus **TALLY** **Max.Marks:70**

Credits 3 **NO Of Hours 5** **Pass Marks 28**

COURSE OUTCOMES:

CO1: Able to understand the basic concepts of TALLY
CO2: Able to understand the installation of TALLY Software.
CO3: Able to implement the concepts of ledgers
CO4: Able to implement the concepts of vouchers
CO5:Able to implement the basic concepts of final accounts.

Unit-I: Introduction to Tally: **12Hrs**

Introduction, Software versions of Tally, Terminology related to Accounts credit & Debit, Journal, Ledger, Voucher, Group etc. Difference between Manual Accounting and Accounting Packages. Features and advantages of Tally.

Unit-II: Introduction of Tally Software **12Hrs**

Introduction of Tally Software Creation of a company, Gateway of Tally, Accounts Information, Groups, pre defined Groups, Creation of New Groups, and Creation of sub Group.

Unit-III: Ledgers **12Hrs**

Ledger Creation Single and multiple Ledgers, Displaying & altering Ledgers, configure Ledger, Stock Ledger, Ledgers and their Group Allocation.

Unit-IV: Vouchers **12Hrs**

Types of vouchers – recording of vouchers – entry of payment voucher, Receipt voucher, sales voucher, purchase voucher, Journal Voucher, Contra Voucher, Debit & Credit Note. Creating New Voucher types, customizing the Existing voucher types, Alternation of Voucher, Deletion of Voucher.

Unit-V: Final Accounts **12Hrs**

Customizing the final accounts – Profit and Loss Account, Balance Sheet. Key board shortcuts in Tally. Generating the Reports from Tally, Trial Balance, Account Books, Sales, Purchase, Journal Registers, Statement of Accounts, Day Book, List of Accounts.

Reference Books:

1. K. Kiran Kumar, Tally ERP9.
2. Tally 9 In Simple Steps, Kogent solutions Inc., John Wiley & Sons, 2008.
3. Narmata Agarwal, Financial Accounting on Computers Using Tally, Dramatic Press, 2000.
4. Tally 9.0, Google eBook, Computer World.
5. Vikas Gupta, Comdex Computer and Financial Accounting with Tally 9.0, 2007.

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COMPUTER SCIENCE	CCSC-605CE	2020-21	B.Com (C.A)

SEMESTER –VI **PAPER – IX** **Total: 60 Hrs**

Model Paper TALLY **Max.Marks:70**

Credits 3 **NO Of Hours 5** **Pass Marks 28**

Answer **Four** Questions. Each Question carries **FIVE** Marks. **4x5=20M**

1. Differentiate between Manual Accounting and Accounting Packages?
2. What are the features of Tally?
3. How to create a new group in Tally
4. Explain how to create a stock ledger?
5. Explain contra Voucher
6. Write a short note on Day Book

Section- B

Answer **FIVE**Questions. Each Question carries **TEN** Marks **5 X 10=50M**

7. Explain evolution of Tally and what are the features and advantages of Tally
8. Explain versions of Tally software
9. Explain about Gateway of Tally
10. Explain about Group and predefined Groups
11. Explain ledger creation
12. How to create a single and multiple ledgers
13. Explain different types of vouchers?
14. Explain how to generate the reports from Tally?

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COMPUTER SCIENCE	CCSC-605CE	2020-21	B.Com (C.A)

SEMESTER –VI **PAPER – IX** **Max. Marks 70** **Pass Marks 28**

Guidelines for paper setting **'TALLY'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

COMPUTER SCIENCE	CCSC-605P	2020-21	B.Com.(C.A.)

SEMESTER – VI **PAPER – V** **Max. Marks: 50**
Pass Mark: 20

TALLY

No. Of Hours per week: 3 **External: 25** **Internal: 25** **Credits: 2**

Lab list

1. Architecture and customization of Tally
2. Configuration of Tally
3. Tally Screens and Menus
4. Creation of new company and groups.
5. Preparation of voucher entries.
    a. Payment voucher creation
    b. Receipt voucher creation
    c. Sales voucher creation
    d. Purchase voucher creation
    e. Contra voucher creation
    f. Journal voucher creation
6. Ledger Creation.
7. Preparation of VAT
8. Preparation of TDS
7. Preparation of Trail balance
8. Preparation of Profit and loss statement.
9. Preparation of Balance Sheet
10. Preparation of Bank Reconciliation Statement.
11. Example Exercise

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COMPUTER SCIENCE	CCSC-606CE	2020-21	B.Com (C.A)

SEMESTER –VI **PAPER – X** **Total: 60 Hrs**

Syllabus **E-COMMERCE** **Max.Marks:70**

Credits 3 **NO Of Hours 5** **Pass Marks 28**

COURSE OUTCOMES:

CO1: Students would be able to analyse the concept of business models and standards.
CO2: Students would be able to understand the electronic market and market place.
CO3: Students would be able to understand the Hardware and Software of Server**.**
CO4: Students would be able to understand the legal and security issues.
CO5: Able to differentiate different online payment methodologies.

Unit-I: **Introduction to E-Commerce** **12Hrs**

Scope, Definition, e-Commerce and the Trade Cycle, Electronic Markets, Electronic Data Interchange, Internet Commerce. Business Strategy in an Electronic Age: Supply Chains, Porter's Value Chain Model, Inter Organizational Value Chains, Competitive Strategy, First Mover Advantage – Sustainable Competitive Advantage, Competitive Advantage using E-Commerce – Business Strategy.

Unit-II:Business-to-Business Electronic Commerce12Hrs

Characteristics of B2B EC, Models of B2B EC, Procurement Management by using the Buyer's Internal Market place, Just in Time Delivery, Other B2B Models, Auctions and Services from traditional to Internet Based EDI, Integration with Back-end Information System, Role of Software Agents for B2B EC, Electronic marketing in B2B, Solutions of B2B EC, Managerial Issues, Electronic Data Interchange (EDI), EDI: Nuts and Bolts EDI and Business.

Unit-III: Internet and Extranet **12Hrs**

Automotive Network Exchange, Largest Extranet, Architecture of the Internet, Intranet and Extranet, Intranet software, Applications of Intranets, intranet Application Case Studies, Considerations in Intranet Deployment, Extranets, Structures of Extranets, Extranet products and services, Applications of Extranets, Business Models of Extranet Applications, Managerial Issues. Electronic Payment Systems: Issues and Challenges.

Unit-IV:Public Policy: **12Hrs**

From Legal Issues to Privacy : Legal Incidents, Ethical and Other public Policy Issues, Protecting Privacy, Protecting Intellectual Property, Free speech, Internet Indecency and Censorship, Taxation and Encryption Policies, Other Legal Issues: Contracts, Gambling and More, Consumer and Seller Protection in EC.

Unit-V:Infrastructure For EC **12Hrs**

Network of Networks, Internet Protocols, Web- Based client/Server, Internet Security, Selling on the Web, Chatting on the Web, Multimedia delivery, Analyzing Web Visits, Managerial Issues, Equipment required for establishing EC Sites – problems in Operation – Future of EC.

Reference Books

1. David Whiteley, "E-Commerce", Tata McGraw Hill, 2000.
2. E Business by Parag Kulakarni and Sunitha Jahirabadkar from Oxford University Press.
3. E Business by Jonathan Reynolds from Oxford University Press.
4. Eframi Turban, Jae Lee, David King, K. Michael Chung, "Electronic Commerce",
5. Pearson Education, 2000.

SEMESTER –VI **PAPER – X** **Total: 60 Hrs**
Syllabus **E-COMMERCE** **Max.Marks:70**
Credits 3 **NO Of Hours5** **Pass Marks 30**

Section-A

Answer **Four** Questions. Each Question carries **FIVE** Marks. **4*5=20M**

1. Explain Electronic data interchange?
2. Write about Value Chain Model
3. What are the characteristics of B2B Electronic Commerce
4. Write about applications of Intranet?
5. Explain encryption policies?
6. Write about Internet protocols?

Section-B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. **5*10=50M**

7. What are the advantages and limitations of E-commerce?
8. Write Business Strategy in an Electronic age
9. Explain Electronic Data Interchange(EDI)
10. Explain different Models of B2B Electronic Commerce?
11. Explain the Architecture of Internet?
12. Explain Business Models of Extranet Applications?
13. Explain Ethical and Other public Policy Issues?
14. Explain about the future of EC

SEMESTER –VI **PAPER – X** **Max. Marks 70** **Pass Marks 28**

Guidelines for paper setting **'E-COMMERCE'**

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

SEMESTER –VI **PAPER – XI**

Syllabus **PHP& MY SQL** **Max.Marks:70**

Credits 3 **NO Of Hours 5** **Pass Marks 28**

COURSE OUTCOMES:

CO1: Understand the concepts Of PHP and PHP Basic Building Blocks.
CO2: Able to know the basic concepts Arrays and it's Working.
CO3: Understand the concepts of FORMS and working with FORMS.
CO4: Understand the concepts of FILES and DIRECTORIES.
CO5: Able to know how the interaction between MY SQL using PHP.

Unit-I: Building blocks of PHP:

Variables, Data Types, Operators and Expressions, Constants. Flow Control Functions in PHP: Switching Flow, Loops, Code Blocks and Browser Output. Working with Functions: Defining Functions, Calling functions, returning the values from User Defined Functions, Variable Scope, Saving State between Function calls with the Static statement, more about arguments.

Unit-II: Working with Arrays:

Arrays, Creating Arrays, Some Array-Related Functions. Working with Objects: Creating Objects, Object Instance. Working with Strings, Dates and Time: Formatting Strings with PHP, Investigating Strings with PHP, Manipulating Strings with PHP, Using Date and Time Functions in PHP.

Unit-III: Working with Forms:

Creating Forms, Accessing Form – Input with User defined Arrays, Combining HTML and PHP code on a single Page, Using Hidden Fields to save state, Redirecting the user, Sending Mail on Form Submission, Working with File Uploads. Working with Cookies and User Sessions: Introducing Cookies, Setting a Cookie with PHP, Session Function Overview, Starting a Session, Working with session variables, passing session Ids in the Query String, Destroying Sessions and Unsettling Variables, Using Sessions in an Environment with Registered Users.

Unit-IV: Working with Files and Directories:

Including Files with include(), Validating Files, Creating and Deleting Files, Opening a File for Writing, Reading or Appending, Reading from Files, Writing or Appending to a File, Working with Directories, Open Pipes to and from Process Using popen (), Running Commands with exec(), Running Commands with system ( ) or passthru ( ). Working with Images: Understanding the Image-Creation Process, Necessary Modifications to PHP, Drawing a New Image, Getting Fancy with Pie Charts, Modifying Existing Images, Image Creation from User Input.

Unit-V:Interacting with MySQL using PHP:

MySQL Versus MySQL Functions, Connecting to MySQL with PHP, Working with MySQL Data. Creating an Online Address Book: Planning and Creating Database Tables, Creating Menu, Creating Record Addition Mechanism, Viewing Records, Creating the Record Deletion Mechanism, Adding Sub-entities to a Record.

References:

1. Julie C. Meloni, PHP MySQL and Apache, SAMS Teach You, Pearson Education (2007).
2. Xue Bai Michael Ekedahl, the Web Warrior Guide to Web Programming, Thomson (2006).

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(With Effect from Academic Year 2017-2018)

COMPUTER SCIENCE	**CCSC-607CE**	**2019-20**	**B.Com (C.A)**

SEMESTER –VI **PAPER – XI** **Total: 60 Hrs**

Syllabus **PHP & MYSQL** **Max.Marks:70**

Credits 3 **NO Of Hours 5** **Pass Marks 28**

Section-A

Answer **Four** Questions. Each Question carries **FIVE** Marks. **4*5=20M**

1. Explain about different data types available in PHP?
2. Define function? Explain how to call the function?
3. Explain about date and time functions?
4. Write about Session Function?
5. Explain about Reading from files?
6. Describe how to create the Record Addition Mechanism?

Section-B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. **5*10=50M**

7. Explain different types of Operators in PHP?
8. Explain flow control functions in PHP?
9. What is an Array? Explain about array related functions.
10. Explain different string functions in PHP?
11. Explain about how to create and access a form in PHP?
12. Describe the working with session variables?
13. Explain working with Directories?
14. Explain about how to insert and retrieve the data in PHP?

Guidelines for paper setting **'PHP & MYSQL'**

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

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COMPUTER SCIENCE	**CCSC-607CE**	**2020-21**	**B.Com (C.A)**

SEMESTER –VI **PAPER – XI** **Total: 60 Hrs**

Lab List PHP, MySQL **Pass Marks 20**
No. of Hours per week: 2 **External: 25** **Internal: 25** **Credits: 2**

MySQL Lab Cycle

Cycle -1
An Enterprise wishes to maintain the details about his suppliers and other corresponding details. For that he uses the following details.
Suppliers (sid: Integer, sname: string, address: string)
Parts (pid: Integer, pname: string, color: string)
Catalog (sid: integer, pid: integer, cost: real)

The catalog relation lists the prices charged for parts by suppliers.

Write the following queries in SQL:

1. Find the pnames of parts for which there is some supplier.
2. Find the snames of suppliers who supply every part.
3. Find the snames of supplier who supply every red part.
4. Find the pnames of parts supplied by London Supplier abd by no one else.
5. Find the sid's of suppliers who charge more for some part than the average cost of that part.
6. For each part, find the sname of the supplier who charges the most for that part.
7. Find the sid's of suppliers who supply only red parts.
8. Find the sid's of suppliers who supply a red and a green part.
9. Find the sid's of suppliers who supply a red or green part.
10. Find the total amount has to pay for that suppler by part located from London.

Cycle – 2

An organisation wishes to maintain the status about the working hours made by his employees. For that he uses the following tables.

Emp (eid: integer, ename: string, age: integer, salary: real)
Works (eid: integer, did: integer, pct_time: integer)
Dept (did: integer, budget: real, managerid: integer)
An employee can work in more than one department; the pct_time field of the works relation shows the percentage of time that a given employee works in a given department.

Resolve the following queries.

1. Print the names and ages of each employee who works in both Hardware and Software departments.
2. For each department with more than 20 full time equivalent employees (i.e., where the part-time and full-time employees add up to at least that many full-time employees), print the did's together with the number of employees that work in that department.
3. Print the name of each employee whose salary exceeds the budget of all of the departments that he or she work in.
4. Find the managerid's of managers who manage only departments with budgets greater than 1,000,000.
5. Find the enames of managers who manage the departments with largest budget.
6. If a manager manages more than one department, he or she controls the sum of all the budgets for those departments. Find the managerid's of managers who control more than 5,000,000.
7. Find the managerid's of managers who control the highest amount.
8. Find the average manager salary.

PHP Lab Cycle

1. Write a PHP program to Display "Hello"
2. Write a PHP Program to display the today's date.
3. Write a PHP Program to read the employee details.
4. Write a PHP program to prepare the student marks list.
5. Write a PHP program to generate the multiplication of two matrices.
6. Write a PHP Application to perform demonstrate the college website.
7. Write a PHP application to add new Rows in a Table.
8. Write a PHP application to modify the Rows in a Table.
9. Write a PHP application to delete the Rows from a Table.
10. Write a PHP application to fetch the Rows in a Table.
11. Develop an PHP application to make following Operations
    i. Registration of Users.
    ii. Insert the details of the Users.
    iii. Modify the Details.
    iv. Transaction Maintenance.
        a) No of times Logged in
        b) Time Spent on each login.
        c) Restrict the user for three trials only.
        d) Delete the user if he spent more than 100 Hrs of transaction.

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COMPUTER SCIENCE	**CSC-401C**	**2020-'21**	**B.Sc.(MPCs. , MCCs.)**

SEMESTER – IV PAPER – IV Max. Marks 70 Pass Marks 28 Totals Hrs 60

SyllabusDATA STRUCTURES NO of Hours: 4 Credits: 3

COURSE OUTCOMES:

CO1: To Understand the Basic concepts of data structures and storage structures and file structures.
CO2: Implement operations on linear lists, Stacks, Queues and their applications.
CO3: Implement various sorting and searching techniques and to understand advantages.
CO4: To understand Trees concepts and implementations.
CO5: To understand Graphs concepts and implementations.

UNIT I **15 Hrs**

Concept of Abstract Data Types (ADTs)- Data Types, Data Structures, Storage Structures, and File Structures, Primitive and Non-primitive Data Structures, Linear and Non-linear Structures. **Linear Lists** - ADT, Array and Linked representations, Pointers.

Arrays - ADT, Mappings, Representations, Sparse Matrices, Sets - ADT, Operations Linked Lists: Single Linked List, Double Linked List, Circular Linked List, applications

UNIT II **10 Hrs**

Stacks: Definition, ADT, Array and Linked representations, Implementations and Applications

Queues: Definition, ADT, Array and Linked representations, Circular Queues, De-queues, Priority Queues, Implementations and Applications.

UNIT III **15 Hrs**

Trees: Binary Tree, Definition, Properties, ADT, Array and Linked representations, Implementations and Applications. Binary Search Trees (BST) - Definition, ADT, Operations and Implementations, BST Applications. Threaded Binary Trees, Heap trees

UNIT IV **10Hrs**

Graphs – Graph and its Representation, Graph Traversals, Connected Components, Basic Searching Techniques, Minimal Spanning Trees

UNIT- V **10 Hrs**

Sorting and Searching: Selection, Insertion, Bubble, Merge, Quick, Heap sort, Sequential And Binary Searching.

TEXT BOOKS

1. Hubbard John R. and Hurray Anita, Data Structures with Java Paperback Prentice-Hall 2005 ISBN-10: 8120327454
2. Samanta D, Classic Data Structures, Prentice-Hall of India, 2001.
3. David Cousins, Introducing Data Structures with Java Kindle Edition, Pearson Education; First edition, 2011, ISBN-10: 8131758648, 464 pages

REFERENCE BOOKS

1. Sahani S, Data Structures, Algorithms and Applications in C++, McGraw-Hill, 2002
2. D S Malik, Data Structures Using C++, Thomson, India Edition 2006
3. Tremblay P, and Sorenson P G, Introduction to Data Structures with Applications, Tata McGraw-Hill,

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COMPUTER SCIENCE	**CSC-401C**	**2020-'21**	**B.Sc.(MPCs., MCCs.)**

SEMESTER – IV PAPER – IV Max. Marks 70 Pass Marks 28 Totals Hrs 60

Model PaperDATA STRUCTURES NO Of Hours: 4 Credits: 3

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4*5=20M

1. Explain about Primitive & Non primitive Data Structures?
2. Explain about Single Linked List?
3. Write about Applications of Stack?
4. Write a Short note on Binary tree?
5. What is Graph? How to represent the Graph
6. Write a program to sort the elements in bubble sort?

Section- B

Answer FIVE Questions. Each Question carries TEN Marks **5*10=50M**

7. Explain Linked representation with array? With an Example?
8. Explain Sparse Matrix?
9. Explain stack operations?
10. What is a Queue? Explain Queue implementation?
11. Explain Tree traversing methods?
12. Explain Binary search tree?
13. Explain about BFS and DFS?
14. Explain about sequential and binary searching?

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COMPUTER SCIENCE	**CSC-401C**	**2020-'21**	**B.Sc.(MPCs., MCCs.)**

SEMESTER – IV **PAPER – IV** **Max. Marks 70**

Guidelines for paper setting '**DATA STRUCTURES'**

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit -5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

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COMPUTER SCIENCE	**CSC-401P**	**2020-'21**	**B.Sc.(MPCs., MCCs.)**

SEMESTER – IV PAPER – IV Max. Marks 50 Pass Marks 20 Total Hrs:28

LAB LIST **DATA STRUCTURES**

No. of Hours per week: 2 External: 25 Internal: 25 Credits: 2

1. Write a Program to implement the Linked List operations
2. Write a Program to implement the Stack operations using an array.
3. Write Programs to implement the Queue operations using an array.
4. Write Programs to implement the Stack operations using a singly linked list.
5. Write Programs to implement the Queue operations using a singly linked list.
6. Write a program to search an item in a given list using Linear Search and Binary Search
7. Write a program for Quick Sort
8. Write a program for Merge Sort
9. Write a program for insertion sort
10. Write a program for Bubble Sort.
11. Write a program for Selection Sort.
12. Write a program for Graph traversals

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COMPUTER SCIENCE	**CCSC 403C**	**2020-'21**	**B.Com.(C.A.)**

SEMESTER – IV **PAPER – IV** **Max. Marks 70**

Syllabus **PROGMAMMING IN C**

NO Of Hours: 5No Of Credits: 3 **Pass Marks 28**

COURSE OUTCOMES:

CO1: Analyze a given problem and develop an algorithm to solve the problem

CO2: Understand the C tokens and control structures.

CO3: Understand to handle arrays and strings

CO4: Use the 'C' language constructs in the right way using pointers, structures and unions

CO5: Design, develop and test programs written in 'C' files.

.**Unit- I: Introduction to Algorithms and Programming Languages: 12 Hrs**

Algorithm – Key features of Algorithms – Some more Algorithms – Flow Charts. Introduction to C: Structure of C Program – Writing the first C Program – Compiling and Executing C Programs Using Comments – Keywords – Identifiers – Basic Data Types in C – Variables Constants – I/O Statements in C- Operators in C- Programming Examples – Type Conversion and Type Casting

Unit-II: Decision Control and Looping Statements 12 Hrs

Introduction to Decision Control Statements – Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – Go to Statement

Unit- III: Functions 12 Hrs

Introduction – using functions – Function declaration/ prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive function

Unit- IV: Arrays 12 Hrs

Introduction – Declaration of Arrays – Accessing elements of the Array – Storing Values in Array Calculating the length of the Array – Operations on Array – one dimensional array for inter-function communication – Two dimensional Arrays –Operations on Two Dimensional Arrays

Strings: Introduction String and Character functions

Unit-V: Pointers: 12 Hrs

Understanding Computer Memory – Introduction to Pointers – declaring Pointer Variables Passing Arguments to Functions using Pointer.

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Unions – Enumerated Data Types.

Reference Books:

1. Reema Thareja, Introduction to C programming, Oxford University Press.
2. E Balagurusamy, Computing Fundamentals & C Programming – Tata McGraw-Hill, 2008.
3. Ashok N Kamthane, Programming with ANSI and Turbo C, Pearson Publisher, 2002.
4. Henry Mulish & Hubert L.Coo Reema Thareja: The Spirit of C: An Introduction to Modern Programming, Jaico Publishing House, 1996.

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COMPUTER SCIENCE	**CCSC 403C**	**2020-'21**	**B.Com.(C.A.)**

SEMESTER – IV PAPER – IV Max. Marks 70

Model Paper PROGMAMMING IN C Pass Marks: 28

Section- A

Answer **FOUR** Questions. Each Question carries **FIVE** Marks. **4*5=20M**

1. Write a short note on Algorithm?

2. Explain data types in C?
3. Write a short note on 'if'- statements?
4. Describe recursive function with an example?
5. Explain one dimensional array with example?
6. Write about pointers

Section- B

Answer **FIVE** Questions. Each Question carries **TEN** Marks **5*10=50M**

7. Explain different types of programming languages?
8. Explain about different Categories of Operators in 'C'?
9. Explain Decision Making Looping statements with examples?
10. Explain different categories of functions?
11. Explain about Storage Classes?
12. Write about two dimension arrays? Give an example program?
13. Explain briefly about String function in 'C'?
14. Difference between Structures and Unions?

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COMPUTER SCIENCE	**CCSC 403C**	**2020-'21**	**B.Com.(C.A.)**

SEMESTER –I V **PAPER – V** **Max. Marks 70** **Pass Marks: 28**

Guidelines for paper setting 'PROGMAMMING IN C'

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2

Unit-2	1	2
Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

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COMPUTER SCIENCE	**CCSC-403P**	**2020-'21**	**B.Com.(C.A.)**

SEMESTER – IV PAPER – IV Max. Marks 50 Pass Marks 20

LABLISTPROGRAMMING IN C

No. of Hours per week: 2 External: 25 Internal: 25 Credits: 2

1. Find out the given number is perfect number or not using c program.
2. Write a C program to check whether the given number is Armstrong or not.
3. Write a program to find roots of quadratic equation.

Root 1 = (-b + sqrt (b^2 - 4ac) / 2a Root 2 = (-b - sqrt (b^2 - 4ac) / 2a

4. Write a C program to find the sum of individual digits of a positive integer.
5. Write a C program to print the Fibonacci series
6. Write a C program to generate the first n terms of the Fibonacci sequence.
7. Write a program to find factorial of a given number using recursion
8. Write a program to perform all arithmetic operations using switch case
9. Write a C program to generate all the prime numbers between 1 and n, where n is a Value supplied by the user.
10. Write a C program to find both the largest and smallest number in a list of integers.
11. Write a C program that uses functions to perform the following:
    a. Addition of Two Matrices
    b. Multiplication of Two Matrices
12. Write a program to perform various string operations
13. Write a program to swap two numbers using pointers.
14. Write C program that implements searching of given item in a given list
15. Write a C program to sort a given list of integers in ascending order

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COMPUTER SCIENCE	**CSC-201C**	**2020-'21**	**B.Sc.(MPCs. , MCCs.)**

SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28 Total Hrs: 60

SyllabusDATA STRUCTURES USING C NO. Of. Hours: 4Credits:3

Course Objectives

To introduce the fundamental concept of data structures and to emphasize the importance of various data structures in developing and implementing efficient algorithms.

COURSE OUTCOMES:

CO1: Understand available Data Structures for data storage and processing.
CO2: Comprehend Data Structure and their real-time applications - Stack, Queue, Linked List, Trees & Graph
CO3: Choose a suitable Data Structures for an application

CO4: Develop ability to implement different Sorting and Search methods
CO5: Have knowledge on Data Structures basic operations like insert, delete, search, update and traversal
CO6: Design and develop programs using various data structures
CO7: Implement the applications of algorithms for sorting, pattern matching etc

UNIT – I: **10Hrs**

Introduction to Data Structures: Introduction to the Theory of Data Structures, Data Representation, Abstract Data Types, Data Types, Primitive Data Types, Data Structure and Structured Type, Program Design, Algorithms, Different Approaches to Designing an Algorithm, Complexity, Big 'O' Notation, Algorithm Analysis.

Arrays: Introduction to Linear and Non- Linear Data Structures, One- Dimensional Arrays, Array Operations, Two- Dimensional arrays, Multidimensional Arrays, Pointers and Arrays, an Overview of Pointers

UNIT – II: **10Hrs**

Linked Lists: Introduction to Lists and Linked Lists, Dynamic Memory Allocation, Basic Linked List Operations, Doubly Linked List, Circular Linked List.

Stacks: Introduction to Stacks, Stack as an Abstract Data Type, Representation of Stacks through Arrays, Representation of Stacks through Linked Lists, Applications of Stacks, Stacks and Recursion

Queues: Introduction, Queue as an Abstract data Type, Representation of Queues, Circular Queues, Double Ended Queues- Deques, Priority Queues, Application of Queues

UNIT – III: **10Hrs**

Binary Trees: Introduction Non- Linear Data Structures, Introduction Binary Trees, Types of Trees, Basic Definition of Binary Trees, Properties of Binary Trees, Representation of Binary Trees, Operations on a Binary Search Tree, Binary Tree Traversal, Counting Number of Binary Trees, Applications of Binary Tree

UNIT – IV: **10Hrs**

Graphs: Introduction, Terms Associated with Graphs, Sequential Representation of Graphs, Linked Representation of Graphs, Traversal of Graphs, Spanning Trees, Shortest Path, Application of Graphs.

UNIT – V: **10Hrs**

Searching and sorting: An Introduction, Bubble Sort, Insertion Sort, Merge Sort, Searching – An Introduction, Linear or Sequential Search, Binary Search, Indexed Sequential Search

UNIT – VI: **10Hrs**

Term Papers: Introduction, Latest Topics for Pursuing Research in Technology and Computer Science, Literature survey.

Note: Unit VI only for Internal Assessment

BOOKS:

1. "Data Structures using C", ISRD group Second Edition, TMH
2. "Data Structures through C", Yashavant Kanetkar, BPB Publications
3. "Data Structures Using C" Balagurusamy E. TMH

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COMPUTER SCIENCE	**CSC-201C**	**2020-'21**	**B.Sc.(MPCs. , MCCs.)**

SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28

Model PaperDATA STRUCTURES USING C NO. Of. Hours: 4Credits:3

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. **4*5=20M**

1. Define an array? Write about its operations.
2. Explain about Dynamic Memory Allocation.

3. Write about applications of Stack?
4. What is Binary Tree? What are the applications of Binary Tree?
5. Describes minimum spanning trees?
6. Describes bubble Sort with example?

Section- B

Answer <u>FIVE</u> Questions. Each Question carries TEN Marks 5*10=50M

7. Explain about ADT and Primitive data types?
8. Write about two dimension arrays? Give an example
9. Explain about Double linked Lists?
10. What is Queue? How to Represent a Queue
11. Explain about Binary Tree Traversal methods?
12. Explain about binary search trees?
13. Explain about Graphs Traversal?
14. Explain about Linear search & Binary search

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COMPUTER SCIENCE	**CSC-201C**	**2020-'21**	**B.Sc.(MPCs. , MCCs.)**

SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28

Guidelines for paper setting '**DATA STRUCTURES USING C'**

<u>Unit wise weightage of Marks</u>

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	1	2
Unit-2	2	2

Unit-3	1	2
Unit-4	1	1
Unit-5	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

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COMPUTER SCIENCE	**CSC-201C**	**2020-21**	**B.Sc.(MPCs. , MCCs.)**

SEMESTER –II **PAPER – II** **Total: 60 Hrs**
Lab List **DATA STRUCTURES USING C'** **Pass Marks 20**

No. of Hours per week: 2 **External: 25** **Internal: 25** **Credits:**

2DATA STRUCTURES USING C LAB CYCLE

1. Write a program to read 'N' numbers of elements into an array and also perform the following operation on an array
   a. Add an element at the begging of an array
   b. Insert an element at given index of array
   c. Update a element using a values and index

d. Delete an existing element

2. Write a program using stacks to convert a given
   a. postfix expression to prefix
   b. prefix expression to postfix
   c. infix expression to postfix
3. Write Programs to implement the Stack operations using an array

4. Write Programs to implement the Stack operations using Liked List.

5. Write Programs to implement the Queue operations using an array.

6. Write Programs to implement the Queue operations using Liked List.

7. Write a program for arithmetic expression evaluation.

8. Write a program for Binary Search Tree Traversals

9. Write a program to implement dequeue using a doubly linked list.

10. Write a program to search an item in a given list using the following Searching Algorithms

   a. Linear Search
   b. Binary Search.
11. Write a program for implementation of the following Sorting Algorithms

   a. Bubble Sort
   b. Insertion Sort
   c. Quick Sort
12. Write a program for polynomial addition using single linked list

13. Write a program to find out shortest path between given Source Node and Destination Node in a given graph using Dijkstrar's algorithm.

14. Write a program to implement Depth First Search graph traversals algorithm

15. Write a program to implement Breadth First Search graph traversals algorithm.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	**CCSC-203C**	**2020-'21**	**B.Com.(C.A)**

SEMESTER –II PAPER – II Max. Marks 70 Pass Marks 28 Totals Hrs 60

Syllabus E-COMMERCE & WEB DESIGNING NO. Of. Hours: 4Credits:3

CO1: Students would be able to analyse the concept of business models and standards.
CO2: Students would be able to understand the electronic market and market place.
CO3: Students would be able to understand the Hardware and Software of Server**.**
CO4: Understand the basic structure of a HTML design and develop a website using different text Formatting tags, images, links, lists and tables.
CO5: Understand to style a webpage using CSS.

Unit I: Introduction: **10Hr's**

Introduction to Internet: Internet Terminology History of the Internet Advantages& disadvantages of Internet how internet works

Electronic Commerce: Definition, types, advantages and disadvantages, E-Commerce transaction on World Wide Web. Electronic Market-Online shopping, three models of ElectronicMarket–E–Business.

Unit-II: E-payment System **10Hr's**

Models and methods of e-payments (Debit Card, Credit Card, Smart Cards, emoney) Digital Signatures (Procedure, Working and Legal Position), Payment Gateways, Online Banking (Meaning, Concepts, Importance), Risks Involved in e-payments.

Unit-III: On-line Business Transactions: **10Hr's**

Meaning,Purpose,AdvantagesandDisadvantagesofTransactingOnline, E-Commerce Applications in Various Industries Like (Banking, Insurance, Payment of Bills), Benefits, ProblemsandFeatures,OnlineServices(Financial,TravelandCareer),OnlineLearning,Online Shopping (Amazon, Flipkart,etc.)

Unit-IV: Website Designing **10Hr's**

Introduction to HTML: Basic HTML, HTML document structure HTML tags Base font tag titletagbodytagHorizontalRuleTag-TextformattingtagsCharactertags.**HTMLLists:**OrderedList,UnorderedList&DefinitionListUsingcolors UsingImages

Unit V: Website Designing: Hyperlinks: **10Hr's**

Textual links, Graphical links, And types of document links, anchor tag, Image Tag **HTML Tables** tablecreationstags,NestedTables,**Frames:**Frameintroduction-framecreationtagsNested Frames, Forms.

Unit VI: Ms Excel: **10Hr's**

Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Formulae, Referencing cells – Inserting Rows/Columns – Changing column widths and row heights, auto format, changing font sizes, colors, shading and attributes – Data Sorting and Filters – Functions – Functions requiring Addins, Functions by category Creating different types of Charts

Note: Unit VI only for Internal Assessment

References: 1.E–commerceandE–Business,Himalayapublishers
2. E-Commerce by Kenneth C Laudon, PEARSONINDIA
3. WebDesign:IntroductorywithMind TapJenniferTCampbell,CengageIndia
4.Html & Web Design:Tips& Techniques Jamsa, Kris, McgrawHill
5. FundamentalsOfWebDevelopmentbyRandyConnolly,RicardoHoar,
6.HTML & CSS: COMPLETE REFERENCE POWELL, THOMAS, McGraw-Hill.

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(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	**CCSC-203C**	**2020-'21**	**B.Com.(C.A)**

SEMESTER –II PAPER – II Max. Marks 70 Pass Marks 28 Totals Hrs 60

MODEL PAPER:**E-COMMERCE & WEB DESIGNING** **NO. Of. Hours: 4Credits:3**

Time:3Hours **Max. Marks:70**

SECTION-A

Answer any Four of thefollowingQuestions: **4 x 5= 20Marks**

1. Define Internet. Write disadvantages ofInternet
2. Define e-paymentsystem

3. Write the purpose of online businesstransaction
4. Briefly explain HTML documentstructure
5. Define Formatting tags?
6. Write about Image tag?

SECTION - B

Answer any FIVE of thefollowingQuestions **5 *10 =50Marks**

7. Explain the working ofInternet?
8. What is e-commerce? Write about the three models ofe-market?
9. Explain about Paymentgateways?
10. Explain the features of online shopping with anexample?
11. Write in detail about text formatting tags inHTML?
12. Write about lists inHTML?
13. Explain different types hyperlinks used in a webpage?
14. Explain about forms inHTML?

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	CSC-203P	2020-21	B.Com.(C.A.)

SEMESTER – II **PAPER – II** **Max. Marks: 50**
Pass Mark: 20

E-COMMERCE & WEB DESIGNINGLAB

No. Of Hours per week: 2 **External: 25** **Internal: 25** **Credits: 2**

Lab list

E-COMMERCE & WEB DESIGNING Lab List

1. Describe Internet and its features.
2. advantages and disadvantages, E-Commerce
3. Explain about Paymentgateways? E-Commerce

4. Applications in Various Industries
5. Creation of simple web page using formattingtags
6. Creation of listsand Tables.
7. Creation of web page with text tags
8. Creation of tables withattributes
9. Creation ofhyperlinks
10. Creation of hyperlinks and includingimages
11. Creation offorms
12. Creation offrame sets

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
(With Effect from Academic Year 2018-'19)

COMPUTER SCIENCE	CCSC-203	2019-'20	B.Com.(C.A)

SEMESTER – II PAPER – II Max. Marks 70

Guidelines for paper setting '**E-COMMERCE & WEB DESIGNING'**

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	1	2
Unit-2	1	1
Unit-3	1	1
Unit-4	1	1

Unit -5	2	2

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

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(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	**ICT-I-201**	**2020-'21**	**B.A, B.Com, B.Sc.**

SEMESTER – IIPAPER – IMax. Marks 50 Pass Marks 20 Total Hrs: 30

Syllabus INFORMATION & COMMUNICATION TECHNOLOGY NO. Of Hrs: **30Credits**: **2**

Objectives:

This course aims at acquainting the students with basic ICT tools which help them in their day to day and life as well as in office and research.

COURSE OUTCOMES: After completion of the course, student will be able to;

CO1. Understand the literature of social networks and their properties.

CO2. Explain which network is suitable for whom.

CO3. Develop skills to use various social networking sites like twitter, flicker, etc.

CO4. Learn few GOI digital initiatives in higher education.

CO5. Apply skills to use online forums, docs, spreadsheets, etc for communication, collaboration and research.

CO6. Get acquainted with internet threats and security mechanisms

Unit-I: Basics of Computers **6 Hrs**

Definition of a Computer - Characteristics and Applications of Computers – Block Diagram of computer, What is Network, Definition, Network Types, Network Topologies, OSI MODEL

UNIT-II: **8 Hrs**

Fundamentals of Internet: What is Internet?, Internet applications, Internet Addressing –Entering a Web Site Address, URL–Components of URL, Searching the Internet, Browser –Types of Browsers, Introduction to Social Networking: Twitter, Tumbler, LinkedIn, Face book, flicker, Skype, yahoo, YouTube, WhatsApp .

UNIT-III: **8 Hrs**

E-mail: Definition of E-mail -Advantages and Disadvantages –User Ids, Passwords, Email Addresses, Domain Names, Mailers, Message Components, Message Composition, Mail Management.

G-Suite: Google drive, Google documents, Google spread sheets, Google Slides and Google forms.

UNIT-IV: **8Hrs**

Overview of Internet security, E-mail threats and secures E-mail, Viruses and antivirus software, Firewalls, Cryptography, Digital signatures, Copyright issues.

What are GOI digital initiatives in higher education? (SWAYAM, SwayamPrabha, National Academic Depository, National Digital Library of India, E-Sodh-Sindhu, Virtual labs, e-acharya, e-Yantra and NPTEL).

Reference Books:

1. In-line/On-line: Fundamentals of the Internet and the World Wide Web, 2/e – by Raymond Green law and Ellen Hepp, Publishers: TMH

2. Internet technology and Web design, ISRD group, TMH.

3. Information Technology – The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.

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(With Effect from Academic Year 2020-‘21)

COMPUTER SCIENCE	**ICT-I-201C**	**2020-‘21**	**B.A, B.Com, B.Sc.**

SEMESTER – IIPAPER – IMax. Marks 50 **Pass Marks 20**

Model paperINFORMATION & COMMUNICATION TECHNOLOGYNO. Of Hrs: **2Credits**: **2**

SECTION-A

Answer FOUR of the following questions **4x5=20M**

1. Explain characteristics of Computer?
2. Explain about network Topologies?
3. Write about URL and its components?

4. Explain about Internet Applications?
5. Explain about Message Composition?
6. Write about Google Spread Sheet?
7. Write about Viruses and antivirus software?
8. Explain about NPTEL?

SECTION-B

Answer THREE of the following questions **3X10=30M**

9. Explain Block diagram of a Computer?
10. Explain OSI MODEL in Detail?
11. Explain Social Networking Sites?
12. Explain about Mail Management? Write advantages and Disadvantages of Email?
13. Explain Different types of Firewalls?

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.

An Autonomous college within the jurisdiction of Krishna University A.P, India.

(With Effect from Academic Year 2020-'21)

COMPUTER SCIENCE	ICT-I-201	2019-'20	B.A, B.Com., B.Sc.

SEMESTER – II PAPER – I Max. Marks 50

Guidelines for paper setting **'INFORMATION & COMMUNICATION TECHNOLOGY''**

Unit wise weight age of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	1
Unit-3	2	1
Unit-4	2	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weight age given by us

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF CHEMISTRY

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

08-07-2020

Minutes of the Online meeting of Board of studies in Chemistry for the Autonomous course of A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru held at 11.00 am on 08-07-2020.

Smt A.INDIRA Presiding

Members Present:

1) A. Indira (Smt.A.Indira)	Chairman	HOD, Dept. of Chemistry, A.G. & S.G.S.Degree College,Vuyyuru.
2) (Prof.D.Ramasekhar Reddy)	University Nominee	Assistant Professor, Dept. of Chemistry,Krishna University, MTM.
3) (Dr.K.A.Emanuel)	Academic Council Nominee	Associate Professor in Chemistry, Sir C.R.Reddy College,Eluru.
4) (Dr.D.Bala karuna kumar)	Academic Council Nominee	Associate Professor in Chemistry, A.L.C College,Vijayawada.
5) (Dr.Nadella Taraka Ramarao)	Industrialist	Manager, Q.C, Divis Laboratories Ltd, Vizag.
6) (Dr.V.Phani Kumar)	Student Nominee	Lecturer in Chemistry, SRR&CVR Govt. Degree College, BZA.
7) K. Ramesh (Sri.K.Ramesh)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College,Vuyyur
8) M. Venkata Santhi (Smt.M.V.Santhi)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College,Vuyyuru.
9) G. Ramesh (Sri.G.Ramesh)	Member	Lecturer in Chemistry, A.G.& S.G.S.Degree College, Vuyyuru.
10) P. Suresh (Sri.P.Suresh)	Member	Lecturer in Chemistry, A.G.& S.G.S.Degree College,Vuyyuru.
11) M. Santhi (Ms.M.Santhi)	Member	Lecturer in Chemistry, A.G.& S.G.S.Degree College,Vuyyuru.
12) (Sri.J.Nageswara Rao)	Member	Rtd.Lecturer in Chemistry, A.G.& S.G.S.Degree College,Vuyyuru.

Agenda for B.O.S Meeting

1 .To recommend the syllabus and model paper for I semester of I Degree B.Sc., Chemistry for the Academic year 2020-2021.

2. To recommend the syllabus and model papers for III semester of II Degree B.Sc., Chemistry for the Academic year 2020-2021.

3. To recommend the syllabus and model papers for V semester of III Degree B.Sc. Chemistry for the Academic year 2020-2021.

4. To recommend the Blue print of I,III,V semesters of B.Sc. Chemistry for the Academic year 2020-2021.

5. To recommend the Guidelines to be followed by the question paper setters in Chemistry for I, III, V Semester – end exams.

6. To recommend the teaching and evaluation methods to be followed under Autonomous status.

7. Any suggestions regarding certificate course, seminars, workshops, Guest lecture to be organized.

8. Recommend the panel of paper setters and Examiners to the controller of Examinations of autonomous

Courses of A.G. & S.G.S.Degree colleges of Arts & Science, Vuyyuru.

9. Any other matter.

Chairman.

RESOLUTIONS

1) It is resolved to change new **syllabus and model paper for I semesters of I B.Sc.** under Choice Based Credit System (CBCS) for the Academic year 2020-21.
   - Syllabus of five units will be changed in sem-1 with paper tittle Inorganic and Physical chemistry.
2) It is resolved to implement the same syllabus **and model papers** under Choice Based Credit System (CBCS) for the Academic year 2020-21 for **III semester of II B.Sc.**
3) It is resolved to implement the same **syllabus and model papers** under Choice Based Credit System (CBCS) for the Academic year 2020-21 for **V semester of III B.Sc.**
4) It is resolved to follow the **Blue prints** of I, III semesters of Degree B.Sc.for the Academic year 2019-20. It is resolved to continue the same **Blue prints** of V semesters of Degree B.Sc. for the Academic year 2020-21.
5) It is resolved to follow the **guidelines** to be followed by the question paper setters of Chemistry for I,III semesters of Degree B.Sc. for the Academic Year 2019-20. It is resolved to continue the same **guidelines** to be followed by the question paper setters of Chemistry for V semester of Degree B.Sc. for the Academic Year 2020-21.
6) It is resolved to continue the following teaching and evolution methods for Academic year 2020-21.

Teaching Methods:

Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector to display on U boards etc, for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- **Internal Assessment Examinations:**
- Out of maximum 100 marks in each paper for I, II B.Sc, 30 marks shall be allocated for internal assessment.
- Out of these 30 marks, **20 marks are allocated for announced tests (i.e.IA-1 & IA-2).** Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, **5 marks** are allocated on the basis of candidate's **percentage of attendance and remaining 5 marks are allocated for the innovative component like assignment/quiz/seminars for IB.Sc.**
- There is **no pass minimum** for internal assessment for I, II B.Sc.
- Out of maximum 100 marks in each paper for III B.Sc, 25 marks shall be allocated for internal assessment.
- Out of these 25 marks, **15 marks are allocated for announced tests (i.e.IA-1 & IA-2).** Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, **5 marks** are allocated on the basis of candidate's **percentage of attendance and remaining 5 marks are allocated for the assignment for III B.Sc.**
- **Semester – End Examination:**

- The maximum mark for I, II B.Sc Semester – End examination shall be 70 marks and duration of the examination shall be 3 hours. Even though the candidate is absent for two IA exams /obtain Zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS".
- The maximum marks for III B.Sc Semester – End examination shall be 75 marks and duration of the examination shall be 3 hours.
- Semester – End examinations shall be conducted in theory papers at the end of every semester, while in practical papers, these examinations are conducted at the end of I,III, & V semesters **for I, II &III B.Sc.**

7) Discussed and recommended for organizing **certificate course, seminars, Guest lecturers, workshops** to upgrade the knowledge of students, for the approval of the academic council.
8) Discussed and empowered the Head of the department of Chemistry to suggest the panel of paper setters and examiners to the controller of examinations. Department of Chemistry Adopted Value Added Course **"Green Chemistry".**
9) NIL.

Chairman

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VIJAYAWADA

(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2020-21

SEMESTER-I	PAPER CODE : CHE-101C
PAPER TITLE : INORGANIC & PHYSICAL CHEMISTRY, PAPER – I	

TOTAL PERIODS - 60 (4hrs/week) Credits – 3

INORGANIC CHEMISTRY

UNIT –I (M.W-10 + 10 + 5) 10h

Chemistry of P-block elements:

Inorganic polymers : Inert pair effect, types of inorganic polymers, comparison with organic polymers, synthesis & structure aspects and applications of Borazines, Silicones, Silicates and Phosphazenes. Structures of Oxides and Oxoacids of Sulphur. Structures of Inter halogen compounds &Pseudo halogens .

UNIT –II

1. Transition Elements: (M.W-10 +5) 6hrs

Characteristics of d-block elements with special reference to electronic configuration, Variable valence, magnetic properties, catalytic properties and ability to form complexes. Stability of various oxidation states.

2. Inner transition Elements: (M.W – 5+5) 6 hrs

Chemistry of lanthanides - electronic configuration, oxidation states, lanthanide contraction & Its Consequences, Magnetic properties. Chemistry of actinides -Electronic configuration, Oxidation states, Actinide contraction, Comparison of Lanthanides and Actinides.

PHYSICAL CHEMISTRY

UNIT-III

1. Solid State: (M.W-10+5) 10h

Characteristics of the Solid state, Law of constancy of interfacial angles, Law of rationality of indices. Miller indices, Symmetry in crystals. Definition of Lattice point, Space lattice, Unit cell .Seven crystal systems and 14 Bravais lattices. X-ray diffraction, Bragg's law. Defects in crystals.

2. Gaseous state: (M.W-10) 5h

Vander Waal's equation of state. Andrew's isotherms of Carbon dioxide. Continuity of state. Critical phenomena. Relationship between critical constants and Vander Waal's constants. Law of corresponding states.

UNIT-IV

1. Liquid Crystals: (M.W-10) 4 h

Liquid crystals, Mesomorphic state. Classification of liquid crystals into Smectic and Nematic Differences between liquid crystal and solid/liquid. Application of liquid crystals as LCD devices.

2. Liquid Mixtures: (M.W-10+5) 10

Definition. Types of liquid mixtures. Examples. Miscible liquid mixture- Azeotropes -HCl-H_2O Ethanol-water systems. Partially miscible liquid mixture-Phenol –Water. Critical Solution temperature- Effec of impurity on Consulate temperature. Immiscible liquid mixtures-steam distillation, Nernst distribution law calculation of partition coefficient & its applications.

UNIT-V

1. Colligative Properties: (M.W-10+5) 6h

Colligative properties. Relative lowering of vapour pressure, Elevation of boiling point -Experimer method –Cottrell's method, Depression in freezing point- Experimental method – Beckmann's method, Osmosis, Osmotic pressure- Experimental method-Berkeley-Hartley method. Abnormal Colligative proper Van't Hoff factor.

2. Ionic Equilibrium: (M.W-5) 3h

Common ion effect , Ionic product, solubility and solubility product.calculations based on solubility produ

List of Text Books

1. Selected topics in inorganic chemistry by W.D.Malik, G..D.Tuli,R.D.Madan
2. Inorganic Chemistry J E Huheey, E A Keiter and R L Keiter
3. Inorganic Chemistry by J.E.Huheey
4. Basic Inorganic Chemistry by Cotton and Wilkinson
5. Advanced Physical chemistry by Guru deep Raj
6. Advanced Physical chemistry by Bahl & Tuli
7. Text book of Physical Chemistry by S.Glasstone
8. Solid state Chemistry & its applications by Anthony R.West

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

Model question paper ACADEMIC YEAR-2020-21

SEMESTER - I	PAPER CODE : CHE-101C
PAPER TITLE : INORGANIC AND PHYSICAL CHEMISTRY, PAPER-I	

Time: 3Hours Maximum marks: 70 Pass marks: 28

SECTION-A

Answer any FOUR of the following. Each question carries 5 marks. 4X5=20M

1. Write any two preparations methods of Silicones?
2. Write electronic configurations of 4d Series?
3. Write the electronic configuration of Actinides?
4. Write oxidation states of Lanthanides?
5. Explain characteristics of solids?
6. Explain about immiscible liquid mixture?
7. Explain solubility product with examples?
8. Write short note on Abnormal Colligative properties.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50M

9. What are Inorganic Polymers and write comparisons between Inorganic and Organic polymers ?
10. Explain the structures of oxoacids of Sulpher ?
11. Explain stability of variable oxidation states of d-block elements.
12. Discuss about x-ray diffraction and crystal structure.
13. Explain Andrew's isotherms of carbon dioxide.
14. Write the differences between Liquid crystal and Solid/liquid.
15. Explain Nernst distribution law for associated molecules.
16. Explain experimental Cottrell's method?

The Guidelines to be followed by the question paper setters in chemistry for the I-Semester - end exams ACADEMIC YEAR-2020-2021

SEMESTER-I	PAPER CODE : CHE-101C
PAPER TITLE : INORGANIC & PHYSICAL CHEMISTRY, PAPER – I	

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (25 Marks)	1	1 + 1
Unit-2 (25 Marks)	1+1+1	1
Unit-3 (25 Marks)	1	1+1
Unit-4 (25Marks)	1	1+1
Unit-5 (20Marks)	1+1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per weightage given by us.

Simple Salt Analysis	PAPER CODE : CHE-101P

Salt mixture Analysis

30 hrs (2h / w) Credits: 2

Analysis of salt mixture containing two anions and two cations from the following.

Anions: Carbonate, acetate, chloride, bromide, nitrate, sulphate, borate, phosphate

Cations: Lead, copper, iron, aluminum, zinc, manganese, nickel, calcium, Strontium, barium, potassium and ammonium.

1. **Analysis of simple salt-I**
2. **Analysis of simple salt-II**
3. **Analysis of simple salt-III**
4. **Analysis of simple salt-IV**
5. **Analysis of simple salt-V**
6. **Analysis of simple salt-VI**

SCHEME OF VALUATION

INTERNAL MARKS

- **Record =10 M**

EXTERNAL MARKS (40)

- **Viva questions = 10 M**

PRACTICAL EXAMINATION (30M)

- **Identification of anion …….. 6M**
- **Confirmation test for anion …….. 6 M**
- **Group separation table with correct group …… 10 M**
- **Confirmation test for cation …….. 5M**
- **Report …….. 3 M**

TOTAL: 30 M

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

(Accredited at "A" Grade by NAAC, Bangalore)

SEMESTER – III	SUBJECT: CHEMISTRY	PAPER CODE: CHE-301C
PAPER TITLE : INORGANIC, ORGANIC PHYSICAL CHEMISTRY, PAPER - III		

INORGANIC CHEMISTRY

60 hrs (4 h / w) Credits - 3

UNIT – I

Theories of bonding in metals:

- Metallic properties and its limitations, Valence bond theory, Free electron theory, Explanation of thermal and electrical conductivity of metals, limitations,
- Band theory, formation of bands, explanation of conductors, semiconductors and insulators.

UNIT – II

1. Metal carbonyls

- Effective atomic number(EAN),Calculation of EAN of metal atom.classification of metal carbonyls, structures and shapes of metal carbonyls of V, Cr, Mn, Fe, Co and Ni.

2. Organometallic Chemistry

- Definition - classification of Organometallic compounds - nomenclature, preparation and applications of alkyls of Li and Mg.

ORGANIC CHEMISTRY

UNIT-III

Carbonyl compounds

- Nomenclature of aliphatic and aromatic carbonyl compounds, structure of the carbonyl group. Synthesis of aldehydes from acid chlorides, synthesis of aldehydes and ketones using 1,3-dithianes, synthesis of ketones from nitriles and from carboxylic acids.
- **Physical properties**: Reactivity of carbonyl group in aldehydes and ketones.
- **Nucleophilic addition reaction** with a) $NaHSO_3$, b) HCN, c) RMgX, d) NH_2OH, e)$PhNHNH_2$, f) 2-4 DNPH, g) Alcohols-formation of hemiacetal and acetal.
- **Base catalysed reactions**: a) Aldol, b) Cannizzaro reaction, c) Perkin reaction, d) Benzoin condensation, e) Haloform reaction, f) Knoevenagel reaction.
- Oxidation of aldehydes- Baeyer-Villiger oxidation of ketones.
- **Reduction**: Clemmensen reduction, Wolf-Kishner reduction, MPV reduction, reduction with $LiAlH_4$ and $NaBH_4$.
- **Analysis of aldehydes and ketones** with a) 2,4-DNT test, b) Tollen's test, c) Fehling test, d) Schiff's test, e) Haloform test (with equation)

UNIT-IV

1. Carboxylic acids and derivatives

- Nomenclature, classification and structure of carboxylic acids.
  Methods of preparation by a) Hydrolysis of nitriles, amides
  b) Hydrolysis of esters by acids and bases with mechanism
  c) Carbonation of Grignard reagents.
- Special methods of preparation of aromatic acids by
  a) Oxidation of side chain.
  b) Hydrolysis by benzotrichlorides.
  c) Kolbe reaction.
- **Physical properties**: Hydrogen bonding, dimeric association, acidity- strength of acids with examples of trimethyl acetic acid and trichloroacetic acid. Relative differences in the acidities of aromatic and aliphatic acids.
- **Chemical properties**: Reactions involving H, OH and COOH groups- salt formation, anhydride formation, acid chloride formation, amide formation and esterification(mechanism). Degradation of carboxylic acids by Huns-Diecker reaction, decarboxylation by Schimdt reaction, Arndt-Eistert synthesis, halogenation by Hell-Volhard- Zelinsky reaction.

2. Active methylene compounds

- **Acetoacetic esters**: keto-enol tautomerism, preparation by Claisen condensation, Acidhydrolysis and ketonic hydrolysis.
- Preparation of a) monocarboxylic acids(Acetic acid, Propaonic acid).
  b) Dicarboxylic acids(Succinic acid, Adipic acid).C)Reaction with urea
- **Malonic ester**: preparation from acetic acid.
  Synthetic applications: Preparation ofa) monocarboxylic acids (propionic acid and n-butyric acid).
  b) Dicarboxylic acids (succinic acid and adipic acid)
  c) α,β-unsaturated carboxylic acids (crotonic acid).Reaction with urea.

PHYSICAL CHEMISTRY

UNIT-V

Dilute solutions

- Colligative properties. Raoult's law, relative lowering of vapour pressure, its relation to molecular weight of non-volatile solute. Experimental method-Ostwald method.
- Elevation of boiling point , Derivation of relation between molecular weight and elevation in boiling point, Experimental method –Cottrell's method
- Depression in freezing point. Derivation of relation between molecular weight and depression in freezing point, Experimental method – Beckmann's method.
- Osmosis,osmotic pressure, Determination of molecular weight of non-volatile solute from osmotic pressure. Experimental method-Berkeley-Hartley method. Abnormal Colligative properties- Van't Hoff factor.

List of Text Books

1. Selected topics in inorganic chemistry by W.D.Malik, G..D.Tuli,R.D.Madan
2. Inorganic Chemistry J E Huheey, E A Keiter and R L Keiter
3. A Text Book of Organic Chemistry by Bahl and Arun bahl
4. A Text Book of Organic chemistry by I L Finar Vol I
5. Telugu Academy Textbook of Chemistry Vol- II (English medium)
6. Unified chemistry Vol- II by O.P.Agarwal
7. Unified chemistry Vol- II by K.Ramarao and Y. R. Sharma (KalyaniPublishers)

List of Reference Books

1. Organic chemistry by Bruice
2. Organic chemistry by Clayden
3. Advanced Inorganic chemistry by Gurudeep Raj
4. Basic Inorganic Chemistry by Cotton and Wilkinson
5. Concise Inorganic Chemistry by J.D.Lee
6. Pradeep's chemistry vol- I & II

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

(Accredited at "A" Grade by NAAC, Bangalore)

SEMESTER – III	**PAPER CODE : CHE-301C**
PAPER TITLE : INORGANIC AND ORGANIC CHEMISTRY, PAPER-III	

Time: 3Hours **Maximum marks: 75** **Pass marks: 30**

SECTION-A

Answer any FIVE of the following. Each question carries 5 marks. 5X5=25

1.

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SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

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The Guidelines to be followed by the question paper setters in chemistry for the III- Semester - end exams

SEMESTER – III	**PAPER CODE : CHE-301C**
PAPER TITLE : INORGANIC AND ORGANIC CHEMISTRY, PAPER-III	

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (25 Marks)	1	1 + 1
Unit-2 (20 Marks)	1 + 1	1
Unit-3 (30 Marks)	1 + 1	1+1
Unit-4 (15 Marks)	1	1
Unit-5 (30 Marks)	1 +1	1 + 1

- **Each Short answer question carries 5 marks in Section –A**
- **Each Essay question carries 10 marks in Section –B**
- **The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.**

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU
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Organic qualitative analysis-I	**PAPER CODE : CHE-301 P**

PRACTICAL SYLLABUS

30 hrs. (2h / w), Credits-2

Organic Qualitative Analysis: 50M

Analysis of an organic compound through systematic qualitative procedure for functional group identification including the determination of melting point and boiling point .

Alcohols, Phenols, Aldehydes, Ketones, ,Carboxylic acids,

SCHEME OF VALUATION

1. INTERNAL MARKS- Record-10M
2. EXTERNAL MAKS-40

- **Analysis of an organic compound and preparation of suitable derivative-30M**
- **Viva questions = 10 M**

TOTAL = 50 M

SEMESTER – V	SUBJECT: CHEMISTRY	COURSE CODE: CHE-501C
PAPER TITLE : INORGANIC,ORGANIC & PHYSICAL CHEMISTRY, Paper –V		

60 hrs(4h/w) Credits-3

INORGANIC CHEMISTRY

UNIT – I

Coordination Chemistry: (10+10+5) 12h

IUPAC nomenclature - bonding theories - Review of Werner's theory and Sidgwick's Concept of coordination - Valence bond theory - geometries of coordination numbers 4-tetrahedral and square planar and 6-octahedral and its limitations,crystal filed theory - Splitting of d-orbitals in octahedral, tetrahedral and square-planar complexes - low spin and high spin complexes - factors affecting crystal-field splitting energy, merits and demerits of crystal-field theory. Isomerism in coordination compounds - structural isomerism and stereo isomerism, stereochemistry of complexes with 4 and 6 coordination numbers

UNIT-II

1. Spectral and magnetic properties of metal complexes: (10+5) 5h

Types of magnetic behavior, spin-only formula, calculation of magnetic moments, experimental determination of magnetic susceptibility-Gouymethod.

2. Stability of metal complexes: (10+5) 6h

Thermodynamic stability and kinetic stability, factors affecting the stability of metal complexes, chelate effect, determination of composition of complex by Job's method and mole ratio method.

ORGANIC CHEMISTRY

UNIT- III

Nitro hydrocarbons: **(10+5) 5h**

Nomenclature and classification-nitro hydrocarbons, structure -Tautomerism of nitroalkanes leading to aci and keto form, Preparation of Nitroalkanes, reactivity - halogenation, reaction with HONO (Nitrous acid),Nef reaction and Mannich reaction leading to Micheal addition and reduction.

UNIT – IV

Nitrogen compounds: (10+10+5) 16h

Amines (Aliphatic and Aromatic): Nomenclature, Classification into 1°, 2°, 3° Amines and Quarternary ammonium compounds. Preparative methods – 1.Ammonolysis of alkyl halides 2. Gabriel synthesis 3. Hoffman's bromamide reaction (mechanism). Reduction of Amides and Schmidt reaction. Physical properties and basic character - Comparative basic strength of Ammonia, methyl amine, dimethyl amine, trimethyl amine and aniline - comparative basic strength of aniline, N-methylaniline and N,N-dimethyl aniline (in aqueous and non-aqueous medium), steric effects and substituent effects.

Chemical properties: a) Alkylation b) Acylation c) Carbylamine reaction d) Hinsberg separation e) Reaction with Nitrous acid of 1°, 2°, 3° (Aliphatic and aromatic amines). Electrophillic substitution of Aromatic amines – Bromination and Nitration. Oxidation of aryl and Tertiary amines, Diazotization.

PHYSICAL CHEMISTRY

UNIT- V

Thermodynamics (10+5+5+5) **16h**

The first law of thermodynamics-statement, definition of internal energy and enthalpy. Heat capacities and their relationship. Joule-Thomson effect- coefficient. Calculation of w, for the expansion of perfect gas under isothermal and adiabatic conditions for reversible processes. State function. Temperature dependence of enthalpy of formation-Kirchoff s equation. Second law of thermodynamics. Different Statements of the law. Concept of entropy, entropy as a state function, entropy changes in reversible and irreversible processes. Entropy changes in spontaneous and equilibrium processes.

List of Reference Books

1. Concise coordination chemistry by Gopalan and Ramalingam
2. Coordination Chemistry by Basalo and Johnson
3. Organic Chemistry by G.Mare loudan, Purdue Univ
4. Advanced Physical Chemistry by
5.Text book of physical chemistry by S Glasstone
6.Concise Inorganic Chemistry by J.D.Lee
7. Advanced Inorganic Chemistry Vol-I by Satyaprakash, Tuli, Basu and Madan
8. A Text Book of Organic Chemistry by Bahl and Arun bahl
9.A Text Book of Organic chemistry by I L Finar Vol I
10.Advanced physical chemistry by Gurudeep Raj

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

SEMESTER – V PAPER-V	PAPER CODE : CHE-501C
PAPER TITLE : INORGANIC,ORGANIC & PHYSICAL CHEMISTRY	

Time: 3Hours **Maximum marks: 75** **Pass marks: 30**

SECTION-A

Answer any FIVE of the following. Each question carries 5 marks. 5X5=25

1.

2.

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8.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

9.

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The Guidelines to be followed by the question paper setters in chemistry for the V- Semester - end exams

SEMESTER – V	SUBJECT: CHEMISTRY	COURSE CODE: CHE-501C
PAPER TITLE : INORGANIC,ORGANIC & PHYSICAL CHEMISTRY, Paper –V		

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (25 Marks)	1	1 + 1
Unit-2 (30 Marks)	1 + 1	1+1
Unit-3 (15 Marks)	1	1
Unit-4 (25 Marks)	1	1 + 1
Unit-5 (25 Marks)	1 +1+1	1

- **Each Short answer question carries 5 marks in Section –A**
- **Each Essay question carries 10 marks in Section –B**
- **The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.**

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(Accredited at "A" Grade by NAAC, Bangalore)

PRACTICAL SYLLABUS

Practical Paper – V **Organic Qualitative Analysis**	**PAPER CODE : CHE-501 P**

30 hrs (2 h/W) Credits: 2

Organic Qualitative Analysis: 50M

Analysis of an organic compound through systematic qualitative procedure for functional group identification including the determination of melting point and boiling point .

Alcohols, Phenols, Aldehydes, Ketones, Carbohydrates,
Carboxylic acids, Aromatic Primary Amines.

SCHEME OF VALUATION

1. INTERNAL MARKS- Record-10M
2. EXTERNAL MAKS-40

- **Analysis of an organic compound and preparation of suitable derivative-30M**
- **Viva questions = 10 M**

TOTAL = 50 M

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS),VUYYURU.
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SEMESTER – V	Paper – VI	SUBJECT: CHEMISTRY	PAPER CODE: CHE-502C
PAPER TITLE : INORGANIC,ORGANIC & PHYSICAL CHEMISTRY			

60 hrs (4h/w) Credits-3

INORGANIC CHEMISTRY

UNIT-I

1. Reactivity of metal complexes: (10+5) **5h**

Labile and inert complexes, ligand substitution reactions - SN^1 and SN^2, substitution reactions of square planar complexes - Trans effect and applications of trans effect.

2.Bioinorganic chemistry: (10) **5h**

Essential elements, biological significance of Na, K, Mg, Ca, Fe, Co, Ni, Cu, Zn and Cl-. Metalloporphyrins – Structure and functions of hemoglobin, Myoglobin and Chlorophyll.

ORGANIC CHEMISTRY

UNIT- II

Heterocyclic Compounds (10+5) **8h**

Introduction and definition: Simple five membered ring compounds with one hetero atom Ex. Furan. Thiophene and pyrrole - Aromatic character – Preparation from 1,4,-dicarbonyl compounds, Paul-Knorr synthesis.

Properties : Acidic character of pyrrole - electrophillic substitution at 2 or 5 position, Halogenation, Nitration and Sulphonation under mild conditions - Diels Alder reaction in furan.

Pyridine – Structure - Basicity - Aromaticity - Comparison with pyrrole - one method of preparation and properties - Reactivity towards Nucleophilic substitution reaction.

UNIT-III

Carbohydrates (10+5+5+5) **12h**

Monosaccharides: **Glucose** (aldo hexose) - Evidence for cyclic structure of glucose (some negative aldehydes tests and mutarotation) - Proof for the ring size (methylation, hydrolysis and oxidation reactions) - Pyranose structure (Haworth formula and chair conformational formula).

Fructose (ketohexose) - Evidence of 2 - ketohexose structure (formation of pentaacetate, formation of cyanohydrin its hydrolysis and reduction by HI). Cyclic structure for fructose (Furanose structure and Haworth formula) - osazone formation from glucose and fructose – Definition of anomers with examples.

Interconversion of Monosaccharides: Aldopentose to Aldohexose (Arabinose to D- Glucose, D-Mannose) (Kiliani - Fischer method). Epimers, Epimerisation - Lobry de

bruyn van Ekenstein rearrangement. Aldohexose to Aldopentose (D-Glucose to D- Arabinose) by Ruff degradation. Aldohexose to Ketohexose [(+) Glucose to (-) Fructose] and Ketohexose to Aldohexose (Fructose to Glucose)

UNIT- IV

Amino acids and proteins (10+10+5) **12h**

Introduction: Definition of Amino acids, classification of Amino acids into alpha, beta, and gamma amino acids. Natural and essential amino acids - definition and examples, classification of alpha amino acids into acidic, basic and neutral amino acids with examples. Methods of synthesis: General methods of synthesis of alpha amino acids (specific examples - Glycine, Alanine, valine and leucine) by following methods: a) from halogenated carboxylic acid b) Malonic ester synthesis c) strecker's synthesis.

Physical properties: Zwitter ion structure - salt like character - solubility, melting points, amphoteric character, definition of isoelectric point.

Chemical properties: General reactions due to amino and carboxyl groups - lactams from gamma and delta amino acids by heating peptide bond (amide linkage). Structure and nomenclature of peptides and proteins.

PHYSICAL CHEMISTRY

UNIT-V

1. Chemical kinetics (10+5) **9h**

Rate of reaction - Definition of order and molecularity. Derivation of rate constants for first, second, third and zero order reactions and examples. Derivation for time half change. Methods to determine the order of reactions. Effect of temperature on rate of reaction, Arrhenius equation, concept of activation energy.

2. Photochemistry (10+5) **9h**

Difference between thermal and photochemical processes. Laws of photochemistry- Grothus-Draper's law and Stark-Einstein's law of photochemical equivalence. Quantum yield-Photochemical reaction mechanism- hydrogen- chlorine, hydrogen- bromine reaction. Qualitative description of fluorescence, phosphorescence, Photosensitized reactions- energy transfer processes (simple example)

List of Reference Books

1. Concise coordination chemistry by Gopalan and Ramalingam
2. Coordination Chemistry by Basalo and Johnson
3. Organic Chemistry by G.Mare loudan, Purdue Univ
4. Advanced Physical Chemistry by Atkins
5. Text book of physical chemistry by S Glasstone
7. Instrumentation and Techniques by Chatwal and Anand
8. Essentials of nano chemistry by pradeep
9. A Textbook of Physical Chemistry by Puri and Sharma
10. Advanced physical chemistry by Gurudeep Raj.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

SEMESTER – V PAPER-VI	PAPER CODE : CHE-502C
PAPER TITLE : INORGANIC,ORGANIC & PHYSICAL CHEMISTRY	

Time: 3Hours **Maximum marks: 75** **Pass marks: 30**

SECTION-A

Answer any FIVE of the following. Each question carries 5 marks. 5X5=25

1.

2.

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SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

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The Guidelines to be followed by the question paper setters in chemistry for the V- Semester - end exams

SEMESTER – V	SUBJECT: CHEMISTRY	PAPER CODE: CHE-502C
PAPER TITLE : INORGANIC,ORGANIC & PHYSICAL CHEMISTRY, Paper – VI		

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (25 Marks)	1	1 + 1
Unit-2 (15 Marks)	1	1
Unit-3 (25 Marks)	1 + 1+1	1
Unit-4 (25 Marks)	1	1 + 1
Unit-5 (30 Marks)	1 +1	1 + 1

- **Each Short answer question carries 5 marks in Section –A**
- **Each Essay question carries 10 marks in Section –B**
- **The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.**

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
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PRACTICAL SYLLABUS

Practical Paper –VI **Physical Chemistry**	**COURSE CODE : CHE-502 P**

30 hrs (2 h/W) **Credits: 2**

1. Determination of rate constant for acid catalyzed ester hydrolysis.
2. Determination of molecular status and partition coefficient of benzoic acid in Benzene and water.
3. Determination of Surface tension of liquid
4. Determination of Viscosity of liquid.
5. Adsorption of oxalic acid on silica gel , verification of Freundlisch isotherm.

SCHEME OF VALUATION

1. INTERNAL MARKS- Record-10M
2. EXTERNAL MAKS-40

- **Practical-30**
- **Viva-10**

TOTAL = 50 M

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF CHEMISTRY

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

9-04-2021

Dept copy – Even-2020-21

Minutes of the Online meeting of Board of studies in Chemistry for the Autonomous course of A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru held at 9.30 am on 09-04-2021 in the Department of Chemistry.

Smt A.INDIRA Presiding

Members Present:

1) (Smt.A.Indira)	Chairman	HOD, Dept. of Chemistry, A.G. & S.G.S.Degree College,Vuyyuru.
2) (Prof.D.Ramasekhar Reddy)	University Nominee	Assistant Professor, Dept. of Chemistry, Krishna University, MTM.
3) (Dr.K.A.Emanuel)	B.O.S. Nominee	Associate Professor in Chemistry, Sir C.R.Reddy College,Eluru.
4) (Dr.D.Bala karuna kumar)	B.O.S. Nominee	Associate Professor in Chemistry, A.L.C College,Vijayawada.
5) (Dr.Nadella Taraka Ramarao)	Industrialist	Manager, Q.C, Divis Laboratories Ltd, Vizag.
6) (Dr.V.Phani Kumar)	Student Nominee	Lecturer in Chemistry, SRR&CVR Govt. Degree College, BZA.
7) (Sri.K.Ramesh)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College,Vuyyuru
8) (Smt.M.V.Santhi)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College,Vuyyuru.
9) (Sri.G.Ramesh)	Member	Lecturer in Chemistry, A.G.& S.G.S.Degree College, Vuyyuru.
10) (Sri.P.Suresh)	Member	Lecturer in Chemistry, A.G.& S.G.S.Degree College,Vuyyuru.
11) Ms.M.Santhi)	Member	Lecturer in Chemistry, A.G.& S.G.S.Degree College,Vuyyuru.
12) (Sri.J.Nageswara Rao)	Member	Rtd.Lecturer in Chemistry, A.G.& S.G.S.Degree College,Vuyyuru

Agenda for B.O.S Meeting

1 .To recommend the syllabus and model paper for II semesters of I Degree B.Sc., Chemistry for the Academic year 2020-2021.

2. To recommend the syllabus and model papers for IV semesters of II Degree B.Sc., Chemistry for the Academic year 2020-2021.

3. To recommend the syllabus and model papers for VI semesters of III Degree B.Sc. Chemistry for the Academic year 2020-21.

4.To recommend the Blue print of II, IV, & VI semesters of B.Sc. Chemistry for the Academic year 2020-21.

5. To recommend the Guidelines to be followed by the question paper setters in Chemistry for Semester – end exams.

6. To recommend the teaching and evaluation methods to be followed under Autonomous status.

7. Any suggestions regarding certificate course, seminars, workshops, Guest lecture to be organized.

8. Recommend the panel of paper setters and Examiners to the controller of Examinations of autonomous

Courses of A.G. & S.G.S.Degree colleges of Arts & Science, Vuyyuru.

9. Any other matter.

Chairman.

RESOLUTIONS

1) It is resolved to continue the **changed syllabus and modified model paper for II semesters of I B.Sc.** under Choice Based Credit System (CBCS) for the Academic year2020-2021.
   Adding Syllabus: Alkanes, Cyclo alkannes and alkens.
2) It is resolved to implement the same syllabus **and model papers** under Choice Based Credit System (CBCS) for the Academic year 2020-21 for **IV semesters of II B.Sc.**
3) It is resolved to implement the same **syllabus and model papers** under Choice Based Credit System (CBCS) of 2020-21 for the Academic year 2019-20for **VI semesters (**General elective-A and cluster Elective-C**) of III B.Sc.**
4) It is resolved to follow the **Blue prints** of II, semesters of Degree B.Sc. for the Academic year 2019-20. It is resolved to continue the same **Blue prints** of IV, and VI semesters of Degree B.Sc. for the Academic year 2020-21.
5) It is resolved to follow the same guidelines to be followed by the question paper setters for Chemistry II, semesters of Degree B.Sc. for the Academic Year 2018-19. III, IV, V and VI semesters of Degree B.Sc. for the Academic Year 2020-21.
6) It is resolved to continue the following teaching and evalution methods for Academic year 2020-21.

Teaching Methods:

Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector to display on U boards etc, for better understanding of concepts.

Evaluation of a student is done by the following procedure:

- **Internal Assessment Examinations:**
- Out of maximum 100 marks in each paper for IB.Sc , 30 marks shall be allocated for internal assessment .
- Out of these 30 marks, **20 marks are allocated for announced tests (i.e.IA-1 & IA-2).** Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, **5 marks** are allocated on the basis of candidate's **percentage of attendance and remaining 5 marks are allocated for the innovative component like assignment/quiz/seminars for IB.Sc.**
- There is **no passing minimum** for internal assessment for I.B.Sc.
- Out of maximum 100 marks in each paper for II&III, 25 marks shall be allocated for internal assessment.
- Out of these 25 marks, **15 marks are allocated for announced tests (i.e.IA-1 & IA-2).** Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, **5 marks** are allocated on the basis of candidate's **percentage of attendance and remaining 5 marks are allocated for the assignment for II, &III B.Sc.**
- **Semester – End Examination:**
- The maximum mark for IB.Sc Semester – End examination shall be 70 marks and duration of the examination shall be 3 hours. Even though the candidate is absent for two IA exams /obtain Zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS".
- The maximum marks for II & III B.Sc Semester – End examination shall be 75 marks and duration of the examination shall be 3 hours.
- Semester – End examinations shall be conducted in theory papers at the end of every semester, while in practical papers, these examinations are conducted at the end of I, II, III, IV, V, VI semesters **for I, II &III B.Sc.**

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS),VUYYURU.

(Accredited at "A" Grade by NAAC) ACADEMIC YEAR-2020-21

SEMESTER - II	**PAPER CODE : CHE-201**
PAPER TITLE : ORGANIC AND GENERAL CHEMISTRY, PAPER- II	

Total Periods - 60 (4hrs/week) Credits-3

ORGANIC CHEMISTRY

UNIT-I

Saturated Hydrocarbons Marks weightage -10+10+5 10h

Alkanes: Preparation methods-Wurtz and Wurtz-Fittig reaction-Physical properties and Chemical Properties-Free radical substitution –Halogenation of Propane-concept of relative Reactivity vs Selectivity, Conformational analysis of Ethane-Propane.

Cycloalkanes: General Formula-Relative Stability of Cycloalkanes -Bayer's Strain theory-Conformational analysis of Cyclohexane and mono substituted Cyclohexane (Methyl cyclohexane).

UNIT-II

Unsaturated Hydrocarbons Marks weightage -10+5 10h

Alkenes: Introduction to Alkenes, Chemical Properties: Markonikov's rule, Anti - Markonikov's rule. Elimination reactions-E_1, E2, E_1cb reactions. Types of Dienes- Diel's - Alder reaction - 1, 2 and 1, 4 additions of HBr in 1,3-butadiene.

Alkynes: Acidity of acetylenic hydrogens-Electrophilic and Nucleophilic addition reactions-formation of carbonyl compounds-alkylation of terminal alkynes.

UNIT-III

Benzene and its reactivity Marks weightage -10+5+5 10h

Concept of aromaticity - Huckel's rule - application to Benzenoid (Benzene, Naphthalene) and Non - Benzenoid compounds (cyclopropenyl cation, cyclopentadienyl anion and tropylium cation)

Reactions - General mechanism of electrophonic substitution, mechanism of nitration, Friedel Craft's alkylation, Friedel Craft's acylation.

7) Discussed and recommended for organizing **certificate course, seminars, Guest lecturers, workshops** to upgrade the knowledge of students, for the approval of the academic council.

8) Discussed and empowered the Head of the department of Chemistry to suggest the panel of paper setters and examiners to the controller of examinations.

9) NIL.

Chairman

Orientation of aromatic substitution –ortho, para and meta directing groups. Ring activating and deactivating groups with examples (Electronic interpretation of various groups like NO_2 and Phenolic).Orientation of (i) Amino, methoxy and methyl groups (ii) Carboxy, nitro, nitrile, carbonyl and sulphonic acid groups (iii) Halogens (Explanation by taking minimum of one example from each type)

GENERAL CHEMISTRY

UNIT-IV

l. Surface Chemistry Marks weightage -10+5+5 8h

Colloids: Characteristic of Colloids, Coagulation of Colloids, Hardy-Schulze law, Stability of colloids, protection of colloid, Gold number.

Adsorption: Physical and Chemical adsorption, Langmuir adsorption isotherms. Applications of adsorption.

2. Chemical Bonding Marks weightage -10+5 7h

Valence bond theory, hybridization, VB theory as applied to ClF_3**,** Ni $(CO)_4$**.** Molecular orbital theory - LCAO method, construction of M.O. diagrams for homo-nuclear and hetero-nuclear diatomic molecules (N_2, O_2, CO and NO).

UNIT-V

Stereochemistry of Carbon compounds Marks weightage -10+10+5 15h

Molecular representations- Wedge, Fischer, Newman and Saw-Horse formulae. Optical isomerism: Optical activity- wave nature of light, plane polarized light, optical rotation and specific rotation. Chiral molecules- definition and criteria (Symmetry elements) - Definition of enantiomers and diastereomers – Explanation of optical isomerism with examples Glyceraldehyde, Lactic acid, Alanine, Tartaric acid, 2,3-dibromopentane. D, L and R, S configuration methods and E, Z- configuration with examples. Racemic mixture- Resolution techniques.

List of Reference Books

1. Organic chemistry by Bahl & Arun Bahl
2. Organic chemistry by I L Finar Vol-I
3. Organic chemistry by Clayden
4. Surface & Colloid Chemistry by K.S.Birdi
5. Surface Chemistry by A Goel
6. Stereochemistry by P.S.Kalsi
7. Stereochemistry of Organic compounds by D. Nasipuri

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

ACADEMIC YEAR-2020-21

SEMESTER – II	**COURSE CODE : CHE-201**
PAPER TITLE : ORGANIC AND GENERAL CHEMISTRY, PAPER - II	

Time: 3Hours **Maximum marks: 70** **Pass marks: 28**

SECTION-A

Answer any FOUR of the following. Each question carries 5 marks. 4X5=20M

1. Write a note on selectivity and reactivity of halogenations of Alkanes.
2. Write E1, E2, E1 cb reactions with example.
3. Explain Orientation of amino group with one example?
4. Write general mechanism of electrophilic substitution of Benzene?
5. Write Coagulation of Colloids.
6. Write differences between physical and chemical adsorption.
7. Define and explain Bond order?
8. Explain about Specific rotation.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50M

9. Write physical and chemical properties of Alkanes?
10. Explain conformational analysis of Methyl cyclohexane
11. Write any three eletrophilic and nucleophilic reactions of Alkynes.
12. Write electronic interpretation of $-NO_2$ and –OH groups.
13. Explain characteristic of Colloids.
14. Define hybridization and explain the types of hybridizations with suitable examples.
15. Explain wave nature of light and plane polarized light.
16. Explain about optical isomerism of Tartaric acid?

The Guidelines to be followed by the question paper setters in Chemistry for the II-Semester - end exams. **ACADEMIC YEAR-2020-21**

SEMESTER – II	**PAPER CODE : CHE-201**
PAPER TITLE : ORGANIC AND GENERAL CHEMISTRY, PAPER - II	

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (25 Marks)	1	1+1
Unit-2 (15 Marks)	1	1
Unit-3 (20Marks)	1+1	1
Unit-4 (35 Marks)	1+1+1	1 + 1
Unit-5 (25 Marks)	1	1+1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
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PRACTICAL SYLLABUS ACADEMIC YEAR-2020-21

Volumetric analysis	Paper code : CHE-201

30 hrs (2 h /w) Credits: 2

1. **Estimation of carbonate ion and bicarbonate ion present in a mixture.**
2. **Determination of Fe (II) using $KMnO_4$ with Oxalic acid as primary standard.**
3. **Determination of Cu (II) using Hypo solution with $K_2Cr_2O_7$ as primary standard.**
4. **Estimation of water of crystallization in Mohr's salt by titrating with $KMnO_4$.**

SCHEME OF VALUATION

1. Record-10M
2. Practical-40M

- **Titrimetric analysis-30M**
- **Viva questions = 10 M**

TOTAL = 50 M

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2020-21

SEMESTER – IV	**SUBJECT: CHEMISTRY**	**PAPER CODE: CHE-401**
PAPER TITLE : SPECTROSCOPY & PHYSICAL CHEMISTRY, PAPER-IV		

60 hrs(4h/w) Credits-3

SPECTROSCOPY

UINT-I

1. Spectrophotometry (10+5) 8h

General features of absorption - Beer-Lambert's law and its limitations, transmittance, Absorbance, and molar absorptivity. Single and double beam spectrophotometers. Application of Beer-Lambert law for quantitative analysis of 1. Chromium in $K_2Cr_2O_7$ 2. Manganese in Manganous sulphate.

2. Electronic spectroscopy: (10+5) 6h

Interaction of electromagnetic radiation with molecules and types of molecular spectra. Energy levels of molecular orbitals (σ, π, n). Selection rules for electronic spectra. Types of electronic transitions in molecules effect of conjugation.Concept of chromophore and auxochrome

UNIT-II

1. Infra red spectroscopy (10) 6h

Different Regions in Infrared radiations. Modes of vibrations in diatomic and polyatomic molecules. Characteristic absorption bands of various functional groups. Interpretation of spectra-Alkanes, Aromatic, Alcohols carbonyls, and amines with one example to each.

2. Proton magnetic resonance spectroscopy (H^1-NMR) (10+10) 10h

Principles of nuclear magnetic resonance, equivalent and non-equivalent protons, position of signals. Chemical shift, NMR splitting of signals - spin-spin coupling, coupling constants. Applications of NMR with suitable examples - ethyl bromide, ethanol, acetaldehyde, 1,1,2-tribromo ethane, ethyl acetate, toluene and acetophenone.

PHYSICAL CHEMISTRY

UNIT-III

Photochemistry (10+5+5) 10h

Difference between thermal and photochemical processes. Laws of photochemistry- Grothus-Draper's law and Stark-Einstein's law of photochemical equivalence. Quantum yield-Photochemical reaction mechanism- hydrogen- chlorine, hydrogen- bromine reaction. Qualitative description of fluorescence, phosphorescence, Photosensitized reactions- energy transfer processes (simple example)

UNIT-IV

Electrochemistry (10+5+5) 15h

Specific conductance, equivalent conductance. Variation of equivalent conductance with dilution. Application of conductivity measurements- conductometric titrations. Arrhenius theory of electrolyte dissociation and its limitations. Ostwald's dilution law. Debye-Huckel-Onsagar's equation for strong electrolytes (elementary treatment only).Definition of transport number, determination by Hittorfs method. Single electrode potential, Nernst equation, Reversible and irreversible cells, Types of electrode-Standard Hydrogen electrode, calomel electrode, Indicator electrode, metal – metal ion electrode, Inert electrode. Applications of EMF measurements - Potentiometric titrations.

UINT-V

Phase rule (10+5) marks 5h

Concept of phase, components, degree of freedom. Derivation of Gibbs phase rule-reduced phase equation. Phase equilibrium of one component (water system). Phase equilibrium of two- component system(Ag-Pb system), desilverisation of lead. Freezing mixtures.

List of Text Books

1.Advanced physical chemistry by Guru deep Raj
2.Introduction to Electrochemistry by S. Glasstone
3.Elementary organic spectroscopy by Y.R. Sharma
4. Spectroscopy by P.S.Kelsi
5.Unified chemistry Vol- II by O.P.Agarwal
6. Unified chemistry Vol- II by K.Ramarao and Y. R. Sharma (Kalyani Publishers)

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SEMESTER – IV	**PAPER CODE : CHE-401 ACADEMIC YEAR-2020-21**
PAPER TITLE : SPECTROSCOPY AND PHYSICAL CHEMISTRY, PAPER-IV, Model question -paper2020-21	

Time: 3Hours **Maximum marks: 70** **Pass marks: 28**

SECTION-A

Answer any Four of the following. Each question carries 5 marks. 4X5=20M

1. Write short notes on spectro photometers.

2. Explain the effect of Conjugation on UV spectrum.

3. Write the differences between thermal and photo chemical process.

4. Explain Stark-Einstein's law of photo chemical equivalence.

5. Write the applications of EMF measurements.

6. Derive Nernst equation.

7. State and explain Gibbs Phase rule.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50M

8. State and explain Beer- Lamberds law? Explain the qualitative analysis of manganese in manganous sulphate.
9. Explain the effect of polar solvents on $n \rightarrow \pi^*$ and $\pi \rightarrow \pi^*$ transitions.

10. Explain the origin and principle in the Infrared spectra.

11. What do you understand by the term splitting of the signals? Explain with example.

12. Give the principle and theory involved in PMR Spectroscopy.

13. What is quantum yield? Explain H_2-Br_2 reaction with mechanism.

14. Explain the potentiometric titrations.

15. Write Phase rule. Draw and explain the phase diagram of water system.

The Guidelines to be followed by the question paper setters in chemistry for the IV-Semester - end exams ACADEMIC YEAR-2020-21

SEMESTER – IV	**SUBJECT: CHEMISTRY**	**PAPER CODE: CHE-401**
PAPER TITLE :	**SPECTROSCOPY & PHYSICAL CHEMISTRY, PAPER-IV**	

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (30 Marks)	1 + 1	1 + 1
Unit-2 (30 Marks)	---	1 + 1+1
Unit-3 (20 Marks)	1 +1	1
Unit-4 (20 Marks)	1 + 1	1
Unit-5 (15Marks)	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G. &S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU

(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2020-21

PRACTICAL SYLLABUS

Physical Chemistry and IR Spectral Analysis	PAPER CODE : CHE - 401 P

30 hrs (2h /w) Credits-2

Physical Chemistry

1. Potentiometric titration of a Mohr's solution with KMnO4 Solution.

2. Potentiometric titration of a Mohr's solution with $K_2Cr_2O_7$ solution.

3. Conductometric titration of a strong acid (HCl)) with a strong base(NaOH).

4. Conductometric titration of a weak acid (CH_3COOH) with a strong base (NaOH).

5. Conductometric titration of a mixture of a strong acid (HCl) and weak acid (CH_3COOH) with a strong base (NaOH)

Student study Project-(IR Spectral Analysis)

IR Spectral Analysis of the following functional groups with examples

a) Hydroxyl groups
b) Carbonyl groups
c) Amino groups
d) Aromatic groups

SCHEME OF VALUATION

1. **Internal marks**
   - **Record = 10**
2. **External marks- 40**
   - **Practical-25**
   - **Viva = 10**
   - **IR Spectral analysis = 5 (Student study Project)**

Total marks =50

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2020-21

SEMESTER – VI	SUBJECT: CHEMISTRY	PAPER CODE:CHE-601GE
PAPER TITLE : **ANALYTICAL METHODS IN CHEMISTRY,**		**Paper – VII**

60hrs (4h / w) Credits-3

UNIT-I

Quantitative analysis: (10+5) 15h

Methods of different types of chemical analysis**,** Principle of volumetric analysis. Theories of acid-base, redox, complexometric, iodometric and precipitation titrations - choice of indicators for these titrations.

UNIT-II

Treatment of analytical data: (10+5) **8h**

Types of errors, significant figures and its importance, accuracy - methods of expressing accuracy, error analysis and minimization of errors, precision - methods of expressing precision, standard deviation and confidence limit.

UNIT-III

Separation Techniques in Chemical analysis (10+10+5) **15h**

Solvent extraction: Introduction, principle, techniques, factors affecting solvent Extraction, Batch extraction, continuous extraction. Synergism. Application - Determination of Iron (III), organic mixture analysis.

UNIT – IV 12h

Chromatography (10+10+5+5)

Classification of chromatography methods, principles of differential migration adsorption phenomenon, Nature of adsorbents, solvent systems, Rf values, factors effecting Rf values.

Ion exchange Chromatography: Introduction, action of ion exchange resins, separation of inorganic mixtures, applications.

Paper Chromatography : Principle, experimental procedures, choice of paper and solvent systems, developments of chromatogram - ascending, descending and radial. Two dimensional chromatography, applications.

UNIT -V (10+10+5+5) 10h

Thin layer Chromatography (TLC):

Principles, Experimental procedures. Adsorbents and solvents. Preparation of plates. Development of the chromatogram. Detection of the spots. Applications.

Column Chromatography: Principles, experimental procedures, Stationary and mobile Phases, Separation technique. Applications.

GC: Principle and applications,**HPLC**: Basic principle and applications.

List of Reference Books

1. Analytical Chemistry by Skoog and Miller
2. A textbook of qualitative inorganic analysis by A.I. Vogel
3. Nanochemistry by Geoffrey Ozin and Andre Arsenault
4. Stereochemistry by D. Nasipuri
5. Organic Chemistry by Clayden

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SEMESTER – VI	PAPER CODE : CHE-601GE
PAPER TITLE : ANALYTICAL METHODS IN CHEMISTRY, PAPER-VII, Model question paper- AC-2020-21	

Time: 3Hours **Maximum marks: 70** **Pass marks: 28**

SECTION-A

Answer any FOUR of the following. Each question carries 5 marks. 4X5=20M

1.Explain in brief steps involved in chemical analysis

2. Define precession write the methods of expressive precession.

3. Write the applications of Solvent extraction.

4.Write the Principle of differential migration of adsorption phenomenon.

5.Write a short note on Nature of adsorbent

6. Write the Principles of TLC and give their applications.

7. Write the development methods of chromatograms.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50M

8. Explain about (a)Complexometric titrations (b) Idometric titrations

9. Explain the Choice of indicators for Acid -base and Redox titrations.

10. Define and explain the methods of expressing Accuracy.

11. Discuss the principle, factors affecting the solvent extraction and write the applications of solvent extraction.

12. Discuss the Separation of in organic mixtures by using ion exchange method.

13. Explain the classification of Chromatographic methods.

14. How to prepare plates in TLC.

15. Explain principle and applications of HPLC.

The Guidelines to be followed by the question paper setters in chemistry for the

VI- Semester - end exams –AC-2020-21

SEMESTER – VI	**PAPER CODE : CHE-601GE**
PAPER TITLE : ANALYTICAL METHODS IN CHEMISTRY, **PAPER-VII**	

syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (15 Marks)	1	1
Unit-2 (15 Marks)	1	1
Unit-3 (25 Marks)	1	1+1
Unit-4 (30 Marks)	1+1	1+1
Unit-5 (30 Marks)	1 +1	1 + 1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU

(Accredited at "A" Grade by NAAC)

PRACTICAL SYLLABUS

Paper title: Chromatography & Volumetric analysis	**Paper code : CHE-601GE-P**

30 hrs (2h /w) Credits-2

1. Identification of amino acids by paper chromatography.
2. Determination of Zn using EDTA
3. Determination of Mg using EDTA
4. Hardness of water.

SCHEME OF VALUATION

1. INTERNAL MARKS- Record-10M

2. EXTERNAL MAKS-40

- **Titrimetric analysis -30**
- **Viva-10**

TOTAL = 50 M

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2020-21

SEMESTER – VI SUBJECT: CHEMISTRY PAPER CODE:CHE-602CE

PAPER TITLE : ORGANIC SPECTROSCOPIC TECHNIQUES, Cluster Elective Paper – VIII

60hrs (4h / w) Credits-3

UNIT-I

NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY (10+10+5) 15h

Nuclear spin, Principles of NMR-Classical and Quantum Mechanical methods, Larmour Frequency. Instrumentation. Saturation, Relaxation spin-spin & spin lattice relaxation. Chemical shifts -Factors influencing Chemical shift, Shielding and De-shielding mechanism.

UNIT-II (10+5)

NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY 8h

Spin-Spin interactions-factors affecting spin-spin interactions, Deuterium exchange (H^+)

Coupling constant- types of coupling constant-vicinal, Geminal and long range coupling constant- Factors influencing coupling constants. Types of PMR Spectrums –AX, AX_2 and AB type with one example.

UNIT-III (10+10+5+5) 14h

Electron Spin Resonance Spectroscopy

Basic Principles, Theory of ESR, Comparison of NMR & ESR.Instrumentation, Factors affecting the 'g' value, determination of 'g' value. Isotropic and Anisotropic constants. Splitting hyper fine splitting coupling constants. Line width, Zero field splitting and Kramer degeneracy. Crystal field splitting,Crystal field effects.Applications:- Detection of free radicals, ESR spectra of (a) $H^{\cdot}$- radical (b)Deuterium radical (c) Methyl radical(CH_3) (d) Benzene anion (C_6H_6) (e) $[Cu(H_2O)_6]^{+2}$

UNIT-IV

UV & VISIBLE SPECTROSCOPY (10+10+5+5) 15h

Electronic spectra of diatomic molecules. The Born- oppenheimer approximation.

Vibration coarse structure: Intensity of Vibrational-electronic spectra:

The Franck-Condon principle.Electronic structure of diatomic molecules.

Types of transitions, Chromophores, Auxochrome, types of shifts in UV Visible spectrum, Conjugated dienes, trienes and polyenes, unsaturated carbonyl compounds-Woodward – Fieser rules.

UNIT-V (10+5) 8h

Electronic spectra of polyatomic molecules

Chemical analysis by Electronic Spectroscopy – Beer-Lambert's Law. Deviation from Beer's law. Quantitative determination of metal ions (Mn^{+2}, Fe^{+2}).

Simultaneous determination of Chromium and Manganese in a mixture.

REFERENCE BOOKS:

1. Electron Spin Resonance Elementary Theory and Practical Applications- John E. Wertz and James R. Bolton, Chapman and Hall, 1986.
2. Spectroscopic Identification of organic compounds – Silverstein, Basseler and Morril.
3. Organic Spectroscopy- William Kemp.
4. Fundamentals of Molecular Spectroscopy- C.N.Banwell and E.A. Mc cash 4thEdition, Tata Mc GrawHillPublishing Co., Ltd. 1994.
5. Physical Methods in Inorganic Chemistry – R.S.Drago, Saunders Publications.
6. Application of MÖssbauer Spectroscopy – Green Mood.
7. NMR, NQR, EPR and MÖssbauer Spectroscopy in inorganic chemistry – R.VParish, Ellis, Harwood.

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SEMESTER – VI PAPER-VIII	**PAPER CODE : CHE-602CE**
PAPER TITLE : ORGANIC SPECTROSCOPIC TECHNIQUES, Model question paper-AC-2020-21	

Time: 3Hours **Maximum marks: 70** **Pass marks: 28**

SECTION-A

Answer any FOUR of the following. Each question carries 5 marks. 4X5=20M

1. Write about Nuclear spin?

2. Write any two types of coupling costant?

3. Write about Kramer degeneracy?

4. What is isotropic and anisotropic costants?

5. Explain Woodward-Fieser rules?

6. Write a short note on Auxochrome?

7. Define and derive Beer-Lambert's law.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50M

8. Explain the instrumentation of the NMR?

9. Explain Spin-Spin relaxation and spin lattice relaxation.

10. Write the types of PMR spectrums of AX, AX2 & AB?

11. Explain the instrumentation of the ESR.

12. Explain the ESR splitting of a) Deuterium radical b) $[Cu(H_2O)_6]^{+2}$ ion

13. Explain the electronic spectra of di atomic molecule.

14. Write note on Vibrational coarse structure.

15. Explain the simultaneous determination of Chromium and Manganese in a mixture.

The Guidelines to be followed by the question paper setters in chemistry for the VI- Semester - end exams

AC- 2020-21

PAPER TITLE: ORGANIC SPECTROSCOPIC TECHNIQUES, PAPER CODE: CHE-602CE

Paper – VIII **Maximum marks : 70** **Duration : 3 Hours**

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (25Marks)	1	1+1
Unit-2 (15 Marks)	1	1
Unit-3 (30Marks)	1+1	1+1
Unit-4 (30Marks)	1+1	1+1
Unit-5 (15Marks)	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU. (Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2020-21

SEMESTER – VI	**SUBJECT: CHEMISTRY PAPER CODE:CHE-603CE**
PAPER TITLE : ADVANCED ORGANIC REACTIONS, Cluster Elective Paper – IX	

60hrs (4h / w) Credits-3

UNIT – I

ORGANIC PHOTOCHEMISTRY (10+10+5) 10hrs

Organic photochemistry: Molecular orbitals, carbonyl chromophore–Jablonski diagram, Photochemical reactions- Photo reduction-mechanism, example-aromatic compounds. sensitizer and influence of sensitizer.

UNIT – II

ORGANIC PHOTOCHEMISTRY (10+10+5) 12hrs

Norrisch cleavages, type -I: Mechanism, acyclic cyclic diones, Photo Fries rearrangement. Norrisch type II cleavage: Mechanism and stereochemistry, Type- II reactions of esters: 1: 2 diketones, photo decarboxylation, Di - π methane Rearrangement, Photochemistry – of conjugated dien es, Decomposition of nitrites –Barton reaction.

UNIT – III

PROTECTING GROUPS AND ORGANIC REACTIONS (10+10+5+5) 15hrs

Principles of (1) Protection of alcohols – ether formation including silyl ethers – ester formation, (2) Protection of diols – acetal,ketal and carbonate formation, (3) Protection of carboxylic acids – ester formation, benzyl and t–butyl esters, (4) Protection of amines– acetylation, benzoylation, benzyloxy carbonyl, triphenyl methyl groups and fmoc, (5)Protection of carbonyl groups – acetal, ketal, 1,2–glycols and 1,2–dithioglycols formation.

UNIT – IV

SYNTHETIC REACTIONS: (10+5+5) 8hrs

Mannich reaction – Mannich bases – Robinson annulations. The Shapiro reaction, Stork–enamine reaction. Use of dithioacetals – Umpolung, phase transfercatalysis – mechanisms and use of benzyl trialkyl ammonium halides. Witting reaction.

UNIT –V : NEW SYNTHETIC REACTIONS(10+5) 15hrs

Define with example and mechanism- Suziki coupling, Click reaction,Baylis–Hillman reaction,RCM olefm metathesis, Mukayama aldol reaction.

Define with one example: (Mechanism not required**)** Mitsunobu reaction, McMurrey reaction, Julia–Lythgoe olefination, Stille coupling and Heck reaction.

Recommended Books

1. Molecular reactions and Photochemistry by Charles Dupey and O.L. Chapman.
2. Molecular Photochemistry by Turru.
3. Importance of antibonding orbitals by Jaffe and Orchin.
4. Text Book of Organic Chemistry by Cram,. Hammand and Henrickson.
5. Some modern methods of organic synthesis by W. Carruthers.
6. Guide Book to Organic Synthesis by R.K. Meckie, D.M. Smith and R.A. Atken.
7. Organic Synthesis by O.House.
8. Organic synthesis by Michael B. Smith.

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SEMESTER – VI PAPER-IX	**PAPER CODE : CHE-603CE**
PAPER TITLE : ADVANCED ORGANIC REACTIONS , Model question paper-AC-2020-21	

Time: 3Hours **Maximum marks: 70** **Pass marks: 28**

SECTION-A

Answer any FOUR of the following. Each question carries 5 marks. 4X5=20M

1. Write about Chromophore triplet state?

2. Write about Barton reaction?

3. Explain how to protect the Carbonyl group?

4. Explain how to protect the Diols?

5. Explain about Umpolung?

6. Explain PTC with mechanism?

7. Explain Suziki coupling?

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50M

8. Explain about Jablonski diagram in organic photo chemistry?

9. Explain mechanism of photo reduction with examples?

10. Explain Norrissch type –I cleavage with mechanism?

11. Explain Norrissch type –II cleavage with mechanism?

12. Explain how to protect Alcohols?

13. Explain how to protect Carboxylic acids?

14. What is Mannich reaction? Explain with mechanism and Mannich bases?

15. Write the mechanism of Baylis-Hillman reaction and RCM Olefination?

The Guidelines to be followed by the question paper setters in chemistry for the VI- Semester - end exams –AC-2020-21

PAPER TITLE: ADVANCED ORGANIC REACTIONS, PAPER CODE: CHE-603CE

Paper – IX Semester – VI Maximum marks : 70 Duration : 3 Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (25Marks)	1	1+1
Unit-2 (25 Marks)	1	1+1
Unit-3 (30 Marks)	1+1	1+1
Unit-4 (20Marks)	1+1	1
Unit-5 (15 Marks)	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2020-21

SEMESTER – VI	**SUBJECT: CHEMISTRY**	**PAPER CODE:CHE-604CE**
PAPER TITLE : PHARMACEUTICAL AND MEDICINAL CHEMISTRY, Cluster Elective Paper –X		

60hrs (4h / w) Credits-3

UNIT-I (10+5+5) **12h**

Pharmaceutical chemistry Terminology: Pharmacy, Pharmacology, Pharmacophore, Pharmacodynamics, Pharmacokinetics (ADME, Receptors - brief treartment) Metabolites and Anti metabolites.

UNIT-II (10+10+5)

Drugs: **10h**

Nomenclature: Chemical name, Generic name and trade names with 10-examples Classification based on structures and therapeutic activity with one example each.

UNIT-III

Synthesis and therapeutic activity of the compounds: **18h**

Chemotheraputic Drugs (**10+10+5)**

l.Sulphadrugs(Sulphamethoxazole) 2.Antibiotics - β-Lactam Antibiotics-Isolation of Pencilline by submerged culture method, 3. Anti malarial Drugs (chloroquine)

Psycho therapeutic Drugs: **(10+5)**

1.Anti pyretics (Paracetamol) 2.Hypnotics, 3.Tranquilizers(Diazepam) 4.Levodopa

UNIT-IV

Pharmacodynamic Drugs: (10+5) **8h**

1.Antiasthma Drugs (Solbutamol) 2. Antianginals (Glycerol Trinitrate) 3.Diuretics (Frusemide)

UNIT-V

HIV-AIDS: (10+5) **12h**

Immunity - CD-4cells, CD-8cells, Retro virus, Replication in human body, Investigation available, prevention of AIDS, Drugs available - examples with structures: PIS: Indivanir (crixivan), Nelfinavir(Viracept).

List of Reference Books:

1. Medicinal Chemistry by Dr. B.V.Ramana
2. Synthetic Drugs by O.D.Tyagi & M.Yadav
3. Medicinal Chemistry by Ashutoshkar
4. Medicinal Chemistry by P.Parimoo
5. Pharmacology& Pharmacotherapeutics R.S Satoshkar & S.D.Bhandenkar

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

SEMESTER – VI PAPER-X	PAPER CODE : CHE-604CE
PAPER TITLE : PHARMACEUTICAL AND MEDICINAL CHEMISTRY, Model question paper-AC-2020-21	

Time: 3Hours **Maximum marks: 70** **Pass marks: 28**

SECTION-A

Answer any FOUR of the following. Each question carries 5 marks. 4X5=20M

1. What are Metabolites and anti metabolites? Explain with example.

2. Write a note on Pharmacology and Pharmacophore.

3. Explain the classification of drugs on the basis of structure.

4. Describe the synthesis and therapeutic activities of Sulphamethoxazole.

5. Write the synthesis,therapeutic activity and side effects of paracetamol.

6. Write a note on Antianginals.

7. Explain about immunity.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50M

8. What are Pharma cokinetics ? Describe Absorption,Distribution,Metabolism and Excretion(ADME)of drug.

9. Explain the classification of drugs based on therapeutic activity with examples.

10. Describe the nomenclature systems of drugs.

11. What are antibiotics? Give examples. Explain the isolation method of pencillin by submerged culture method.

12.Write the synthesis,therapeutic activity and side effects of Chloroquine.

13. Discuss the synthesis and therapeutic activity of Levodopa.

14. Explain in detail about antiasthma drugs.

15. What is AIDS?How it causes ? Write the drugs available for the treatment of AIDS with their structure?

The Guidelines to be followed by the question paper setters in chemistry for the VI- Semester - end exams AC-2020-21

PAPER TITLE: PHARMACEUTICAL AND MEDICINAL CHEMISTRY, PAPER CODE: CHE-604CE

Paper – VIII-C-3 Semester – VI Maximum marks : 70 Duration : 3 Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (20 Marks)	1+1	1
Unit-2 (25Marks)	1	1+1
Unit-3 (40Marks)	1+1	1+1+1
Unit-4 (15 Marks)	1	1
Unit-5 (15Marks)	1	1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
(Accredited at "A" Grade by NAAC, Bangalore)

Practical syllabus

Paper title: Preparations of Organic compounds	Paper code : CHE-602CE-P

30 hrs (2 h / W) Credits-2

1. Preparation of Aspirin.
2. Preparation of Paracetamol.
3. Preparation of Acetanilide
4. Preparation of Barbutiric Acid.
5. Preparation of Phenyl Azo β-naphthol.

SCHEME OF VALUATION

1. INTERNAL MARKS- Record-10M
2. EXTERNAL MAKS-40M

- **Titrimetric analysis -30**
- **Viva-10**

TOTAL = 50 M

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
(Accredited at "A" Grade by NAAC, Bangalore)

Practical syllabus

Paper title: Preparations of Organic compounds by Green procedure	**Paper code : CHE-603CE-P**

30 hrs (2h / W), Credits-2

1. Green procedure for organic qualitative analysis: Detection of N, S andhalogens

2. Acetylation of 1^0 amine by green method: Preparation of acetanilide

3. Rearrangement reaction in green conditions: Benzil-Benzilic acid rearrangement

4. Electrophilic aromatic substitution reaction: Nitration of phenol

5. Radical coupling reaction: Preparation of 1, 1-bis -2-naphthol

6. Green oxidation reaction: Synthesis of Adipic acid

7. Green procedure for Diels Alder reaction between furan and Maleic anhydride

SCHEME OF VALUATION

1. INTERNAL MARKS- Record-10M
2. EXTERNAL MAKS-40 M

- **Practical -30**
- **Viva-10**

TOTAL = 50 M

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
(Accredited at "A" Grade by NAAC, Bangalore)

Department of Chemistry

Paper title: **Project work**	Paper code : CHE-604CE-P

The students have chosen chemistry as cluster elective. "Laboratory Reagents" is selected as a project work to the students for this academic year.

SCHEME OF VALUATION

1. EXTERNAL- 25M- given by the Examiner (Viva)

2. INTERNAL = 25 M

- **Written viva-10 M**
- **Submission of the project book-15M**

TOTAL = 50 M

A.G.&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(AUTONOMOUS),VUYYURU
(Accredited at "A" Grade by NAAC) ACADEMIC YEAR-2020-21

SEMESTER - II	PAPER CODE :
PAPER TITLE : FOOD ADULTERATION	

UNIT-I: Total: 30Hrs (2h/week) 02 Credits

Common Foods and Adulteration(10+10+5+5) 10Hrs

Common Foods subjected to Adulteration-Adulteration-Definition –Types; Poisonous substances, Foreign matter, cheap substitutes, Spoiled parts. Adulteration through Food Additives –Intentional and incidental. General Impact on Human Health.

UNIT-II :

Adulteration of Common Foods and Methods of Detection (10+10+5+5+5) 10Hrs

Means of Adulteration Methods of Detection Adulterants in the following Foods; Milk, Oil, Grain, Sugar, Spices and Condiments, Processed Food, Fruits and Vegetables. Additives and Sweetening agents (at least three methods of detection for each food item).

UNIT-III:

Present Laws and Procedures on Adulteration(10+10+5+5+5) 10Hrs

Highlights of Food Safety and Standards Act 2006 (FSSA) –Food Safety and Standards Authority of India- Rules and Procedures of Local Authorities.Role of Voluntary Agencies Suchas, Agmark, I.S.I. Quality control laboratories of Companies, Private testing laboratories, Quality control laboratories of Consumer co-operatives.

Consumer Education, Consumer's problems, rights and responsibilities, COPRA2019-Offenses and Penalities-Procedures to Complain –Compensation to Victims.

Reference books and Websites:

1.A first course in Food Analysis – A.Y. Sathe,New Age International (p) Ltd, 1999

2. Food Safety, case studies –Ramesh.V.Bhat,NIN,1992

3.https://old.fssai.gov.in/Portals/0/Pdf/ Draft Manuals/ Beverages and Confectionary.pdf

4.https://www.fssai.gov.in/

5.https://indianlegalsolution.com/laws-on-food-adulteration/

6.https://fssai.gov.in/dart/

7.https://byjus.com/biology/food-adulteration/

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

ACADEMIC YEAR-2020-21

SEMESTER – II	**COURSE CODE :**
PAPER TITLE : FOOD ADULTERATION ,PAPER - II	

Time: 2 Hours Maximum marks: 50 Pass marks:20

SECTION-A

Answer any FOUR Questions. Each question carries 5 marks. 4X5=20Marks

1.
2.
3.
4.
5.
6.
7.
8.

SECTION-B

Answer any THREE Questions. Each question carries 10 marks. 3X10=30M

9.
10.
11.
12.
13.
14.

The Guidelines to be followed by the question paper setters in Chemistry for the II-Semester - end exams. ACADEMIC YEAR-2020-21

Weightage for the question paper-FOOD ADULTERATION

syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (30Marks)	1+1	1+1
Unit-2 (35Marks)	1+1+1	1+1
Unit-3 (35Marks)	1+1+1	1+1

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B
- The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF PHYSICS

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

08-07-2020

Minutes of the meeting of Board of studies in Physics for the Autonomous course of A.G. & S.G.Siddhartha Degree College of Arts & Science, Vuyyuru held at 10.30 A.M on 08-07-20 in the Department of Physics.

Sri Ch. Vijay Anil Dai **Presiding**

Members Present:

1) Ch. Vijay Anil Dai (Ch.Vijay Anil Dai)	Chairman	Head, Department of Physics A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
2) ..... (Dr. M. Rama Krishna N)	University Nominee	Lecturer in Physics, HEAD, DEPT. OF PHYSICS The Hindu College, Machilipatnam.
3) P Syam Prasad (Dr.P. Syam Prasad)	Academic Council Nominee	Asst. Professor, Dept. of Physics, NIT, Warangal.
4) ..... (Dr. K. Suresh)	Academic Council Nominee	Lecturer in Physics, VSR & NVR College for Arts & Sciences Tenali.
5) I. Chitti Babu (I.Chittibabu)	Representative from Industry	Sub Divisional Engineer, BSNL, Vijayawada.
6) J. Dilip (J. Dilip)	Alumini	Lecturer in Physics, Srinivasa College, Gannavaram.
5) P. Venkata Ramana (P.V. Ramana)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
6) U. Ramprasad (U. Ramprasad)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
7) J. Hareeshchandra (J. Hareeshchandra)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.

8) M. Sateesh (M. Sateesh)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
9) M. Purna Durga parimala (M.P.D.Parimala)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.

Agenda for B.O.S Meeting

1 .To recommend the syllabi and model papers for I semester of I Degree B.Sc., Physics for the Academic year 2020-2021.

2. To recommend the syllabi and model papers for III semester of II Degree B.Sc., Physics for the Academic year 2020-2021.

3. To recommend the syllabi and model papers for V semester of III Degree B.Sc. Physics for the Academic year 2020-2021.

4.To recommend the Blue print of question papers for I, III & V semesters of B.Sc. Physics for the Academic year 2020-2021.

5. To recommend the Guidelines to be followed by the question paper setters in Physics for I, III & V Semester – end exams.

6. To recommend the teaching and evaluation methods to be followed under Autonomous status.

7. Any suggestions regarding seminars, workshops, Guest lecture to be organized.

8. Recommend the panel of paper setters and Examiners to the controller of Examinations of Autonomous Courses of A.G. & S.G.S. Degree colleges of Arts & Science, Vuyyuru.

9. Any other matter.

Chairman.

RESOLUTIONS

1) It is resolved to change the **syllabi and model papers for I semester of I B.Sc.** as prescribed by APSCHE for the Academic year 2020-21.
2) It is resolved to continue the same **syllabi and model papers** for **III semester of II B.Sc.** under Choice Based Credit System (CBCS) for the Academic year 2020-21.
3) It is resolved to continue the same **syllabi and model papers** for **V semester of III B.Sc.** under Choice Based Credit System (CBCS) for the Academic year 2020-21.
4) It is resolved to change the **Blue print** for I semester of Degree I B.Sc. as prescribed by APSCHE for the Academic year 2020-21.
5) It is resolved to continue the same **Blue print** for III & V semesters of Degree II, III B.Sc. for the Academic year 2020-21.
6) It is resolved to continue the same **Guidelines** for III & V semesters of Degree II, III B.Sc. for the Academic year 2020-21.
7) It is resolved to continue the following teaching and evolution methods for Academic year 2020-21.

Teaching Methods:

Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector, U boards, virtual lab etc, for better understanding of concepts.

Evaluation of a student is done by the following procedure:

➢ **Internal Assessment Examinations:**

- For I B.SC.(sem I) , II B.SC.(sem III) and III B.Sc **(i.e. V semester)** out of 100 marks in each paper, 30 marks shall be allocated for internal assessment
- Out of these 30 marks, **20 marks are allocated for announced tests (i.e.IA-1 & IA-2).** Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, **5 marks** are allocated on the basis of candidate's **percentage of attendance, 5 marks** are allocated for **assignment / class room seminars for I, III and V Semesters.**

➢ **Semester – End Examination:**

- The maximum marks for I B.Sc , II B.SC and III B.Sc. Semester – End examination shall be 70 marks and duration of the examination shall be 3 hours.
- **Semester – End examinations** in theory papers and **practical Examinations** shall be conducted at the end of every semester **I, III & V for I, II &III B.Sc.**

8) Discussed and recommended for organizing seminars, **Guest lecturers, workshops** to upgrade the knowledge of students, for the approval of the academic council.
9) Discussed and empowered the Head of the department of Physics to suggest the panel of paper setters and examiners to the controller of examinations.
10) *Discussed and recommended to incorporate the percentage of the new syllabus, if introduced /reduced/ made by APSCHE/UGC/ Krishna University for the academic year 2020-21. The same syllabus shall be incorporated as per the guidelines of the competent authority.*

Chairman.

DEPARTMENT OF PHYSICS

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS), VUYYURU – 521 165

I B.Sc. 1st Semester (2020-2021)

Physics Paper I: Mechanics & Properties of Matter

Work load: 60hrs per semester **4 hrs/week**

UNIT-I:

1. Mechanics of Particles (5 hrs)

Review of Newton's Laws of Motion, Motion of variable mass system, Motion of a rocket, Multistage rocket, Concept of impact parameter, scattering cross-section, Rutherford scattering-concept only.

2. Mechanics of Rigid bodies (7 hrs)

Rigid body, rotational kinematic relations, Equation of motion for a rotating body, Angular momentum and Moment of inertia tensor, Euler equations, Precession of a spinning top, Gyroscope, Precession of atom and nucleus in magnetic field, Precession of the equinoxes

Unit-II:

3. Motion in a Central Force Field (12hrs)

Central forces, definition and examples, characteristics of central forces, conservative nature of central forces, Equation of motion under a central force, Kepler's laws of planetary motion- Proofs, Kepler's third law from inverse-square law of Gravitation. Motion of satellites, Basic idea of Global Positioning System (GPS).

UNIT-III:

4. Relativistic Mechanics (12hrs)

Introduction to relativity, Frames of reference, Galilean transformations, absolute frames, Michelson-Morley experiment, Postulates of Special theory of relativity, Lorentz transformation, time dilation, length contraction, variation of mass with velocity, Einstein's mass-energy relation

Unit-IV:

5. Undamped, Damped and Forced oscillations: (07 hrs)

Simple harmonic oscillator and solution of the differential equation, Damped harmonic oscillator, Forced harmonic oscillator – Their differential equations and solutions, Resonance, Logarithmic decrement, Relaxation time and Quality factor.

6. Coupled oscillations: (05 hrs)

Coupled oscillators-Introduction, Two coupled oscillators, N-coupled oscillators and wave equation.

Unit-V:

7. Vibrating Strings: (07 hrs)

Transverse wave propagation along a stretched string, General solution of wave equation and its significance, Modes of vibration of stretched string clamped at ends, Overtones and Harmonics, Melde's strings.

8. Ultrasonics: (05 hrs)

Ultrasonics, General Properties of ultrasonic waves, Production of ultrasonics by piezoelectric and magnetostriction methods, Detection of ultrasonics, Applications of ultrasonic waves, Ultrasonic interferometer.

REFERENCE BOOKS:

- B. Sc. Physics, Vol.1, Telugu Academy, Hyderabad
- Fundamentals of Physics Vol. I - Resnick, Halliday, Krane ,Wiley India 2007
- College Physics-I. T. Bhimasankaram and G. Prasad. Himalaya Publishing House.
- University Physics-FW Sears, MW Zemansky& HD Young,Narosa Publications, Delhi
- Mechanics, S.G.Venkatachalapathy, Margham Publication, 2003.
- Waves and Oscillations. N. Subramanyam and Brijlal, VikasPulications.
- Unified Physics - Waves and Oscillations, Jai PrakashNath&Co.Ltd.
- Waves & Oscillations. S.Badami, V. Balasubramanian and K.R. Reddy, Orient Longman.
- The Physics of Waves and Oscillations, N.K.Bajaj, Tata McGraw Hill
- Science and Technology of Ultrasonics- Baldevraj, Narosa, New Delhi,2004

The Guidelines to be followed by the question paper setters in Physics for the First semester - end exams (2020-2021)

PAPER TITLE: <u>Mechanics,waves & Oscillations</u>

Paper- I Semester – IMaximum marks: 70 Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (30 Marks)	**T+P**	**2**
Unit-2 (20 Marks)	**T+P**	**1**
Unit-3 (25 Marks)	**T**	**2**
Unit-4 (25 Marks)	**T**	**2**
Unit-5 (20 Marks)	**T+P**	**1**

Note: **T** means one theory question, **P** means one problem

- **<u>Section-A</u>** contains **5** short questions and **3** problems out of these

8 questions, the student has to answer any **4**, each question carries **5** marks.

- **Section –B** contains 8 essay questions, the student has to answer any **5** questions, each question carries **10** marks
- The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

MODEL PAPER

PAPER TITLE : Mechanics,waves & Oscillations

Duration : 3Hours Maximum marks : 70 marks Pass marks : 28 marks

Section – A

Answer any Four of the following questions 4x5=20m

1. Write a note on impact parameter.

2 .A car develop 75KW power when rotating at a speed of 100 rpm what is the torque acting?

3. What is Central Force? Give to Two examples.

4 . Explain length contraction.

5. If the earth be one – half of its present distance From the sun, What will be the number of days in a year.

6.Explian logarithmic decrement & Quality factor.

7. Explain fundamental frequency, overtone and harmonics.

8. Calculate the fundamental frequency of a quartz crystal of thickness 0.001m. Given $y=7.9x10^{10}$ n/m^2 $p=2650kg/m^3$

Section – B

Answer any FIVE of the following questions 5X10=50M

9. Derive an expression for the velocity of a variable mass System.
10. Derive the Eluer equations of rotational motion for a rigidi body fixed at one end.
11. State kepler's laws of planetary motion. Derive kepler's first laws of planetary motion.
12. State the postulates of special theory of relativity. Derive the Lorentz transformation equation
13. Describe the Michelson – Morley Experiment with relevant theory and discuss the importance of its result.
14. What is the simple harmonic oscillator? Derive equation of motion of the simple harmonic oscillator and its solution.
15. What is forced oscillation? Derive the differential equation of forced oscillation. Obtain its solution .

16. Explain the production of ultrasonic by magnetostriction method.

Practical paper 1: Mechanics Waves and Oscillations

Exam duration : 3Hours Maximum marks : 50 marks

Minimum of 6 experiments to be done and recorded

1. Young's modulus material a rod by uniform bending
2. Young's modulus material a rod by non- uniform bending
3. Surface tension of a liquid by capillary rise method
4. Fly-wheel- Determination of moment of inertia.
5. Determination of 'g' by compound/bar pendulum
6. Determination of the elastic constants of the material of a flat spiral spring.
7. Determination of the frequency of a bar- Melde's experiment.
8. Study of a damped oscillation using the torsional pendulum immersed in liquid-decay constant and damping correction of the amplitude.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS), VUYYURU – 521 165
II B.Sc. 3rd Semester (2020-2021)

III SEMESTER **Paper III: Wave Optics**

Work load: 60 hrs per semester 4 hrs/week

UNIT- I .. (7 hrs) 1. Aberrations:

Introduction – monochromatic aberrations, spherical aberration, methods of minimizing spherical aberration, coma, astigmatism and curvature of field, distortion. Chromatic aberration-the achromatic doublet. Achromatism for two lenses (i)in contact and (ii) separated by a distance.

UNIT –II .. (9 hrs) 2. Interference : Division of wavefront:

Principle of superposition-coherence-conditions for interference of light..Fresnel's biprism-determination of wavelength of light. Determination of thickness of a transparent material using biprism –Determination of the thickness of a thin sheet of transparent material. Change of phase on reflection – Stoke's Law.

UNIT –III .. (10 hrs) 3. Division of Amplitude:

Oblique incidence of a plane wave on a thin film due to reflected and transmitted light (cosine law) –colors of thin films-Non reflecting films-interference by a plane parallel film illuminated by a point source- Interference by a film with two non-parallel reflecting surfaces (Wedge shaped film). Determination of diameter of wire- Newton's rings in reflected light-Determination of wavelength of monochromatic light. Michelson interferometer-Determination of wavelength of monochromatic light.

UNIT- IV .. (12 hrs) 4. Diffraction:

Introduction,distinction between Fresnel and Fraunhoffer diffraction, Fraunhoffer diffraction –Diffraction due to single slit and circular aperture-Limit of resolution-Fraunhoffer diffraction due to double slit-Fraunhoffer diffraction pattern with N slits (diffraction grating).Resolving power of grating-Determination of wavelength of light in normal and oblique incidence methods using diffraction grating.Fresnel's half period zones-area of the half period zones-zone plate-comparison of zone plate with convex lens-difference between interference and diffraction.

UNIT- V 5.Polarisation (12 hrs) :

Polarized light: methods of polarization polarization by reflection, refraction, double refraction, scattering of light-Brewster's law-Mauls law-Nicol prism polarizer and analyzer-Quarter wave plate, Half wave plate-optical activity, analysis of light by Laurent's half shade polarimeter-Babinet's compensator.

6. Lasers and Holography: (10 hrs)

Lasers: introduction,spontaneous emission, stimulated emission. Population Inversion, Laser principle-Einstein coefficients-Types of lasers-He-Ne laser, Ruby laser-Applications of lasers. Holography: Basic principle of holography-Gabor hologram and its limitations, Applications of holography.

TEXT BOOKS:

1. BSc Physics, Vol.2, *Telugu Akademy, Hyderabad*
2. A Text Book of Optics-N Subramanyam, L Brijlal, *S.Chand& Co.*

3. Unified Physics Vol.II Optics & Thermodynamics – *Jai Prakash Nath&Co.Ltd., Meerut*
4. Second Year Physics, K. Ramakrishna,D.V.Brahmaji,A.Sreenivasa Rao & S.L.V. Mallikarjun, VikasPublications,Guntur.

REFERENCE BOOKS:

1. Optics,F..A. Jenkins and H.G. White, *Mc Graw-Hill*
2. Optics, AjoyGhatak,Tata Mc Graw-Hill.
3. Fundamentals of Physics. Halliday/Resnick/Walker.*C. Wiley India Edition 2007*
4. Introduction of Lasers – Avadhanulu, *S.Chand& Co.*
5. Fundamentals of Optics, H.R. Gulati and D.R. Khanna, 1991, R. Chand Publication
6. Principles of Optics- BK Mathur, *Gopala Printing Press, 1995*

The Guidelines to be followed by the question paper setters in Physics for the III Semester - end exams

PAPER TITLE: Wave Optics

Paper- III Semester – III Maximum marks: 70 marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1(20 Marks)	**T+P**	**1**
Unit-2(15 Marks)	**T**	**1**
Unit-3(30 Marks)	**T+P**	**2**
Unit-4(25 Marks)	**T**	**2**
Unit-5(30 Marks)	**T+P**	**2**

Note: **T** means one theory question, **P** means one problem

- **Section-A** contains **5** short questions and **3** problems out of these **8** questions, the student has to answer any **4**, each question carries **5** marks.
- **Section –B** contains **8** essay questions, the student has to answer any **5** questions, each question carries **10** marks.
- The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – III	COURSE CODE : PHY- 301C
PAPER TITLE :	Wave Optics MODEL PAPER

Duration : 3Hours Maximum marks : 70 marks Pass marks : 28 marks

II B.Sc (PHYSICS) - III SEMESTER - WAVE OPTICS

TIME: 3 HRS PHY – 301 C MAX MARKS: 70

SECTION – A

ANSWER ANY FOUR OF THE FOLLOWING **(4 X 5 = 20 M)**

1)Explain coma in lenses with a neat diagram
2)Derive condition for change of phase of reflection by stokes law
3) Explain the formation of colours in thin films
4) Explain the difference between interference and diffraction
5) State and explain Malus law
6) Two thin convex lenses of focal length 0.25 m and 0.20 m are placed coaxially 10 cm apart. Find the focal length of combination.
7) In Newton's ring experiment, the diameter of the 10th dark ring is 0.433 cm. Find the wavelength of light, if the radius of curvature of the lens is 70 cm
8) A half wave plate is constructed for a wavelength of 6000 *Å,* for what wave length does it work as a quarter wave plate.

SECTION – B

ANSWER ANY FIVE OF THE FOLLOWING **(5 X 10 = 50 M)**

9) What is chromatic aberration . obtain an expression for the chromatic aberration of a lens .Derive the condition for achromatism when the lens are in contact and seperated by a distance .

10)Describe Fresel's biprism method to determine the wavelenghth of light by forming interference fringes.

11) Describe the experimental arrangement to observe Newton's rings by reflected light. Obtain an expressions for the diameter of nth bright and dark rings

12) Describe the principle, construction and working of Michelsons interferometer with a sketch .

13) What is diffraction. Describe Fraunhoffer's diffraction due to single slit .

14) Describe the construction and working of a zone plate with necessary theory

15) Describe the construction and working of Nicol prism. Explain how it is used as polarizer and analyser.

16) Write a note on spontaneous emission and stimulated emission. Explain the construction and working of ruby laser.

Practical Paper III: Wave Optics

Exam duration : 3Hours Maximum marks : 50 marks

Work load:30 hrs

Minimum of 6 experiments to be done and recorded

1. Determination of radius of curvature of a given convex lens-Newton's rings.
2. Resolving power of grating.
3. Study of optical rotation –polarimeter.
4. Dispersive power of a prism.
5. Determination of wavelength of light using diffraction grating- minimum deviation method.
6. Wavelength of light using diffraction grating-normal incidence method.
7. Resolving power of a telescope.
8. Refractive index of a liquid-hallow prism
9. Determination of thickness of a thin fiber by wedge method
10. Spectrometer- i-d curve.
11. Determination of refractive index of liquid-Boy's method.
12. Determination of wavelength-Hartmann formula (prism)

DEPARTMENT OF PHYSICS
A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS), VUYYURU – 521 165
III B.Sc. 5th Semester (2020-2021)
Paper V: Electricity, Magnetism and Electronics

Work load:60 hrs per semester **4 hrs/week** **Course Code : PHY 501C**

Unit – I(12hrs)

1.Electrostatics

Gauss's law Statement and its proof-Electric field intensity due to (1) Uniformly charged sphere and (2) an infinite conducting sheet of charge. Electric potential- Equipotential surface –potential due to i) a point charge ii)charged spherical shell .

2.Dielectrics

Electric dipolement and molecular polarizability- Electric displacement D, electric polarization P – relation between D, E, and P- Dielectric constant, susceptibility .

Unit – II(12hrs)

3. Electric and magnetic field Biot – Savart's law and calculation of B due to long straight wire, a circular current loop and solenoid. Hall effect-determination of Hall coefficient and applications.

4.Electromagnetic induction

Faraday's law – Lenz's law self and mutual inductance, coefficient of coupling, calculation of self inductance of a long solenoid, energy stored in magnetic field. Tansformer- energy losses and efficiency.

Unit-III(12hrs)

5.Alternating current and electro magnetic waves

Alternating current –Relation between current and voltage in LR and CR circuits, vector diagrams, LCR series and parallel resonant circuit , Q- factor, power in AC circuits.

6.Maxwell's equations

Idea of displacement current- Maxwell's equations (integral and differential forms) (no derivation) Maxwell's wave equation(with derivation), Transverse nature of electromagnetic wave. Pointing Vector (statement and proof) production of electromagnetic wave Hertz experiment.

Unit-IV(12hrs)

7.Basic electronics:

PN junction diode Zener diode ,I-V characteristics, PNP and NPN Transistors, CB,CE and CC configuration Relation between α β and Γ transistors (CE) characteristics,Transistor as an amplifier.

Unit-V(12hrs)

Digital electronics:

Number systems-conversion of binary to decimal system and vice versa. Binary addition and subtraction (1's and 2's complement methods) laws of Boolean algebra-De Morgan's laws-statement and proof basic logic gates, NAND and NOR as universal gates Half adder and FULL adder.

REFERENCE BOOKS

1) BSC Physics vol.3 Telugu Akademy, Hyderabad.
2) Electricity, Magnetism D,N Vasudeva. S.chand & co.,
3) Electricity, Magnetism and Electronics, K.K.Tewai, R.Chand &co.,
4) Principles of electronics, V.K.Mehta, S.Chand &co.,

5) Digital principles and applications A.P Malvino and D.P.Leach, Mc GrawHILL Edition.

The Guidelines to be followed by the question paper setters in Physics for the V Semester - end exams

PAPER TITLE: <u>Electricity, Magnetism and Electronics</u>

Paper- V Semester – V Maximum marks: 70 marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (25 Marks)	**T**	**2**
Unit-2 (20 Marks)	**T+P**	**1**
Unit-3 (30Marks)	**T+P**	**2**
Unit-4 (20 Marks)	**T+T**	**1**
Unit-5 (25 Marks)	**T**	**2**

Note: **T** means one theory question, **P** means one problem

- **<u>Section-A</u>** contains **6** short questions and **2** problems out of these **8** questions, the student has to answer any **4**, each question carries **5** marks.
- **<u>Section –B</u>** contains **8** essay questions, the student has to answer any **5** questions, each question carries **10** marks.
- The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – V	COURSE CODE : PHY-501 C
PAPER TITLE : Electricity, Magnetism and Electronics	

Duration : 3Hours Maximum marks : 70 Pass marks : 28 marks

MODEL PAPER

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS), VUYYURU – 521 165

III B.Sc. (PHYSICS)- V SEMESTER

ELECTRICITY,MAGNETISM AND ELECTRONICS

TIME: 3 Hrs PHY – 501 C MAX MARKS: 70 PASS MARK : 28

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SECTION – A

ANSWER ANY FOUR OF THE FOLLOWING **(4 X 5 = 25 M)**

1) Write a short note on equi - potential surfaces
2) obtain an expression for energy stored in a magnetic field
3) Derive expression for power in ac circuit
4) Explain CE configuration of a transisitor
5) Explain briefly how a transisitor works as an amplifier
6) Explain about half adder circuit with truth table.
7) Calculate the intensity of the magnetic field at the center of a circular coil of radius 20 cm and 40 turns having a current of 2A in it.
8) In a series RLC circuit R = 100 ohm, L = 0.5H and C = 0.4 μF. calculate resonant frequency

SECTION – B

ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS (5 X 10 = 50 M)

9) Derive an expression for the electric field due to uniformly charged sphere using Gauss law?
10) Define D, E and P derive the relation between them
11) Calculate the magnetic induction due to a long straight wire using Biot- savart's law
12) State and prove pointing theorem
13) Explain the growth and decay of charge in LR- circuit
14) Describe the construction and working of Zener diode.
15) State and prove De Morgan's theorem with examples.
16) Explain about basic logic gates with truth tables.

Practical paper V: Electricity, Magnetism and Electronics

Exam duration : 3Hours Maximum marks : 50 marks

Work load:30hrs

Minimum of 6 experiments to be done and recorded

1. Figure of merit of a moving coil galvanometer.
2. LCR circuit series/parallel resonance, Q-factor
3. Determination of Ac-frequency-sonometer
4. Verification of Kirchoff's laws
5. Field along the axis of a circular coil carrying current.
6. PN Junction diode Characteristics
7. characteristics of Zener diode
8. Transistor CE Characteristics.
9. Logic Gates –OR ,AND, NOT,and NAND gates verification of truth tables.
10. Verification of De Morgan's theorems.

DEPARTMENT OF PHYSICS
A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS), VUYYURU – 521 165
III B.Sc. Physics – V Semester – Paper –VI (2020 – 2021)
Modern Physics
Course Code : PHY 502C Work Load : 60 hrs per semester 4 hrs/week

Unit – I (12 hrs) 1. Atomic and molecular physics

Introduction – Drawbacks of Bohr's atomic model – Sommerfeld's elliptical orbits-relativistic correction (no derivation). Vector atom model and Stern & Gerlach experiment - quantum numbers associated with it. L-S and j-j coupling schemes. Zeeman Effect and its experimental study.

Raman effect, stokes and Anti stokes lines . Quamtum theory of Raman effect. Experimental arrangement – Applications of Raman effect.

UNIT – II (12 hrs) 2. Matter waves & Uncertainty Principle

Matter waves, de Broglie's hypothesis – wavelength of matter waves, Properties of matter waves – Davisson and Germer experiment, uses of electron diffraction-Phase velocity and Group velocity (definitions only)- relation between phase velocity and Group velocity–Heisenberg's uncertainty principle for position and momentum (x and p) & energy and time (E and t). Experiment verification.

UNIT – III (12 hrs) 3.Quantum (wave) mechanics

Basic postulates of quantum mechanics – Schrodinger time independent and time dependent wave equation – derivations. Physical interpretation of wave function. Applications of Schrodinger wave equation to particle in one dimensional infinite box. Harmonic oscillator.

UNIT – IV (12 hrs) 4.General properties of Nuclei

Basic ideas of nucleus – size,mass,charge density(matter energy), binding energy,angular momemtum, parity, magnetic moment, electric quadrupole moments.Liquid drop model and shell model (qualitative aspects only)- Magic numbers.

5. Radioactivity decay

Alpha decay : basis of α – decay processes. Range of α-particles , Geiger"s Law,Geiger- Nuttal law. β – decay, β ray continuous and discrete spectrum, neutrino hypothesis.

UNIT – V (12 hrs)

6.Crystal structure

Amorphous and crystalline materials, unit cell, Miller indices, reciprocal lattice, types of lattices, diffraction of X- rays by crystals, Bragg's law, experimental techniques, Laue's method and powder diffraction method.

7. Superconductivity:

Introduction – experimental facts, critical temperature – critical field – Meissner effect – isotope effect – Type I and Type II superconductors – BCS theory (elementary ideas only) – applications of superconductors.

REFERENCE BOOKS :

1.B.Sc physics, VOL .4, Telugu academy , Hyderabad.
2.Molecular structure and spectroscopy by G.Aruldas. prentice Hall of india , New Delhi.
3. Modern physics by R.Murugeshan and Kiruthiga siva prasanth. S. Chand & co.
4. Modern physics by G.Aruldhas & p. Rajagopal. Eastren economy edition.
5.Concepts of Modern physics by Arthur Beiser.Tata Mcgrew – Hill Edition.
6.Quantum Mechanics, Mahesh c Jain , Eastern Economy EDITION
7.Nuclear Physics ,Irving Kaplan, Narosa Publishing House.
8.Nuclear physics , D.C Tayal, Himalaya publishing house.
9. Elements of solid state physics, J.P srivastava, Prentice Hall of india pvt. Ltd.
10. Solid state physics, A.J.Dekkar, McMillan India.

The Guidelines to be followed by the question paper setters in Physics for the V Semester - end exams

PAPER TITLE: Modern Physics

Paper- VI Semester – V Maximum marks: 70 marks Duration: 3Hours
Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (25 Marks)	**T**	**2**
Unit-2 (20 Marks)	**T+P**	**1**
Unit-3 (25Marks)	**T**	**2**
Unit-4 (20 Marks)	**T+T**	**1**
Unit-5 (30 Marks)	**T+P**	**2**

Note: **T** means one theory question, **P** means one problem

- **Section-A** contains **6** short questions and **2** problems out of these **8** questions, the student has to answer any **4**, each question carries **5** marks.
- **Section – B** contains **8** essay questions; the student has to answer any 5 questions. Each question carries **10** marks.

The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – V	COURSE CODE : PHY-502

PAPER TITLE : Modern Physics (Model Paper)

Duration : 3Hours Maximum marks : 70 Pass marks : 28 marks

III B.Sc. Physics – V Semester – Paper –VI (2020 – 2021)
Modern Physics

Paper Code : PHY 502C **SECTION-A**

Answer any **FOUR** questions **(4x5=20M)**

1. Write the Draw backs of Bohr's atomic model.
2. Explain deBroglie concept of matter waves.
3. Explain Geiger-Nuttal law.
4 Write a note on liquid drop model.
5. Explain Meissner effect in super conductivity.
6. State postulates of Quantum Mechanics.
7. In a crystal lattice plane cuts intercepts 2a, 3b and 6c along the three axes where a,b and c are primitive vectors of the unit cell. Determine the miller indices of the given plane.
8. If the uncertainty in position of an electron is $4x10^{-10}$m and uncertainty in its momentum is $1.65x10^{-24}$kg m/sec.

SECTION-B

Answer any **FIVE** questions : **(5x10=50M)**

9. Describe Stern and Gerlach experiment and discuss the importance of the results obtained
10. What is Raman Effect? Write the Experimental setup to study Raman Effect.
11. Describe Davisson and Germer Experiment on electron diffraction. Discuss the results of the Experiment.
12. Derive Time independent Schrodinger wave equation.
13. Calculate the energy of a particle in one dimensional box using Schrodinger equation.
14. Mention the Basic Properties of Nucleus with reference to Size, Charge, Mass, Nuclear spin and Electric Quadra pole Moment.
15. Describe X-Ray diffraction by Laue's method.
16. Explain Type-I and Type-II Superconductors.

Practical Paper VI : Modern Physics

Exam duration : 3Hours Maximum marks : 50 marks

Work load : 30 hrs **3 hrs.**

Minimum of 6 experiments to be done and recorded

1. e/m of an electron by Thomson method.
2. Determination of Planck's Constant (photocell)
3. Verification of inverse square law of light using photovoltaic cell.
4. Study of absorption of α – rays.
5. Study of absorption of . β – rays.
6. Determination of range of β – particles.
7. Determination of M & H.
8. Analysis of powder X- ray diffraction pattern to determine properties of crystals.
9. Energy gap of semiconductor using junction diode.
10. Energy gap of a semiconductor using Thermistor.

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF PHYSICS

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

30-03-2021

Minutes of the Online meeting of Board of studies in Physics for the Autonomous course of A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru held at 2 P.M on 30-03-2021 in the Department of Physics.

Sri Ch. Vijay Anil Dai **Presiding**

Members Present:

1) (Ch.Vijay Anil Dai)	Chairman	Head, Department of Physics A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
2) (Dr. M. Rama Krishna Rao Nancharaiah)	University Nominee	Lecturer in Physics, Head, Dept of Physics, The Hindu College, Machilipatnam.
3) (Dr.P. Syam Prasad)	Academic Council Nominee	Asst. Professor, Dept. of Physics, NIT, Warangal.
4) (Dr. K. Suresh)	Academic Council Nominee	Lecturer in Physics, VSR & NVR College for Arts & Sciences Tenali.
5) (I.Chittibabu)	Representative from Industry	Sub Divisional Engineer, BSNL, Vijayawada.
6) (U. Ramprasad)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
7) (J. Hareeshchandra)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.

8) M. Sateesh (M. Sateesh)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
9) M. Purna Durga parimala (M.P.D.Parimala)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
10)) J. Dilip (J. Dilip)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.

Agenda for B.O.S Meeting

1 .To recommend the syllabi and model papers for II semester of I Degree B.Sc., Physics for the Academic year 2020-21.

2. To recommend the syllabi and model papers for IV semester of II Degree B.Sc., Physics for the Academic year 2020-21.

3. To recommend the syllabi and model papers for VI semester of III Degree B.Sc. Physics for the Academic year 2020-21.

4. To recommend the Blue print of question papers for II, IV & VI semesters of B.Sc. Physics for the Academic year 2020-21.

5. To recommend the syllabi for Unit VI (competitive Physics) that is included in SEM II syllabus.

6. To recommend the syllabi for certificate course "Motor winding" and skill development course "Solar Energy" in the II SEM.

7. To recommend the Guidelines to be followed by the question paper setters in Physics for II, IV & VI Semester – end exams.

8. To recommend the teaching and evaluation methods to be followed under Autonomous status.

9. Any suggestions regarding seminars, workshops, Guest lecture to be organized.

10. Recommend the panel of paper setters and Examiners to the controller of Examinations of autonomous Courses of A.G. & S.G.S.Degree colleges of Arts & Science, Vuyyuru.

11. Any other matter.

Chairman.

RESOLUTIONS

1) It is resolved to follow the changed **syllabi and model papers for II semester of I B.Sc.** as per APSCHE guidelines from the Academic year 2020-21.

2) It is resolved to follow the **same syllabi and model papers for IV semester of II B.Sc.** under Choice Based Credit System (CBCS) for the Academic year 2020-21.

3) It is resolved to follow,

a) The same **syllabi and model papers** for elective paper "Analog and Digital Electronics" (PHY-601GE) under Choice Based Credit System (CBCS) for **VI semester of III B.Sc.**

b) The **changed syllabi and model papers** for Cluster paper "Introduction to Microprocessor and Microcontroller" (PHY-602 CE) under Choice Based Credit System (CBCS) for **VI semester of III B.Sc.**

c) The **changed syllabi and model papers** for Cluster paper "Computational Methods and Programming" (PHY-603 CE) under Choice Based Credit System (CBCS) for **VI semester of III B.Sc.**

d) The **changed theory syllabi and model papers** for Cluster paper "Electronics Instrumentation" (PHY-604 CE) under Choice Based Credit System (CBCS) and Project work is introduced instead of Practical for 50 marks, for **VI semester of III B.Sc.**

4) It is resolved to follow the **same Blue print** of IV semester of Degree II B.Sc. for the Academic year 2020-21.

- It is resolved to follow the **changed Blue print** of II semester of Degree B.Sc. for the Academic year 2020-21.
- It is resolved to follow the **changed Blue print** of VI semester of Degree III B.Sc. for the Academic year 2020-21.

5)It is resolved to follow the **same Guidelines** of IV semester of Degree II B.Sc. for the Academic year 2020-21.

- It is resolved to follow the **changed Guidelines** of II semester of I Degree B.Sc. for the Academic year 2020-21.
- It is resolved to follow the **changed Guidelines** of VI semester of Degree III B.Sc. for the Academic year 2020-21.

6)It is resolved to prescribe the certificate course "Motor winding" and skill development course "Solar Energy" in the **I SEM.**

7) It is resolved to introduce Unit VI (competitive Physics) which is included in SEM II syllabus.

8) It is resolved to continue the following teaching and evolution methods for Academic year 2020-21.

Teaching Methods:

Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector, U boards, virtual lab etc, for better understanding of concepts.

Evaluation of a student is done by the following procedure:

➢ **Internal Assessment Examinations:**

- For I B.Sc(sem II), II B.Sc(sem IV) and III B.Sc(sem VI) out of 100 marks in each paper, 30 marks shall be allocated for internal assessment
- Out of these 30 marks, **20 marks are allocated for announced tests (i.e.IA-1 & IA-2).** Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, **5 marks** are allocated on the basis of candidate's **percentage of attendance, 5 marks** are allocated for **assignment / class room seminars for II, IV and VI Semesters.**
- Unit VI (competitive Physics) which is included in SEM II syllabus is excluded for the external exams.

➢ **Semester – End Examination:**

- The maximum marks for I B.Sc, II B.SC, and III B.SC. Semester – End examination shall be 70 marks and duration of the examination shall be 3 hours.
- **Semester – End examinations** in theory papers and **practical Examinations** shall be conducted at the end of every semester **II, IV & VI** and Project work for Cluster paper PHY-604 CE instead of Practical, **for I, II &III B.Sc.**
- The maximum marks for skill development course, Semester – End examination shall be 50 marks and duration of the examination shall be one and half hours.

9) Discussed and recommended for organizing **seminars, Guest lecturers, workshops** to upgrade the knowledge of students, for the approval of the academic council.

10) Discussed and empowered the Head of the department of Physics to suggest the panel of paper setters and examiners to the controller of examinations.

11) Nil

Chairman.

DEPARTMENT OF PHYSICS
A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS) , VUYYURU – 521 165
I B.Sc. 2nd Semester (2020-21**)**

Paper II: Waves Optics **II SEMESTER**
Work load: 60 hrs per semester credits - 3 **4 hrs/week**

UNIT-I Interference of light: (12hrs)

Introduction, Conditions for interference of light, Interference of light by division of wave front and amplitude, Phase change on reflection Stokes' treatment, Lloyd's single mirror, Interference in thin films: Plane parallel and wedge shaped films, colours in thin films, Newton's rings in reflected light-Theory and experiment, Determination of wavelength of monochromatic light, Michelson interferometer and determination of wavelength.

UNIT-II Diffraction of light: (12hrs)

Introduction, Types of diffraction: Fresnel and Fraunhoffer diffractions, Distinction between Fresnel and Fraunhoffer diffraction, Fraunhoffer diffraction at a single slit, Plane diffraction grating, Determination of wavelength of light using diffraction grating, Resolving power of grating, Fresnel's half period zones, Explanation of rectilinear propagation of light, Zone plate, comparison of zone plate with convex lens.

UNIT-III Polarisation of light: (12hrs)

Polarized light: Methods of production of plane polarized light, Double refraction, Brewster's law, Malus law, Nicol prism, Nicol prism as polarizer and analyzer, Quarter wave plate, Half wave plate, Plane, Circularly and Elliptically polarized light-Production and detection, Optical activity, Laurent's half shade polarimeter: determination of specific rotation, Basic principle of LCDs

UNIT-IV Aberrations and Fibre Optics: (12hrs)

Monochromatic aberrations, Spherical aberration, Methods of minimizing spherical aberration, Coma, Astigmatism and Curvature of field, Distortion; Chromatic aberration-the achromatic doublet; Achromatism for two lenses (i) in contact and (ii) separated by a distance.

Fibre optics: Introduction to Fibres, different types of fibres, rays and modes in an optical fibre, Principles of fibre communication (qualitative treatment only), Advantages of fibre optic communication.

UNIT-V Laser sand Holography :(12hrs)

Lasers: Introduction, Spontaneous emission, stimulated emission, Population Inversion, Laser principle, Einstein coefficients, Types of lasers-He-Ne laser, Ruby laser, Applications of lasers; Holography: Basic principle of holography, Applications of holography

UNIT-VI Competitive Physics (Only for Internal Exams)

Newton's laws of Motion, Work, Energy, and Power, conservative and non-conservative forces, *Gravitation, Kepler's laws statements, concept of friction, scalars and vectors with examples, expansion of solids applications.*

REFERENCE BOOKS:

• BSc Physics, Vol.2, Telugu Akademy, Hyderabad

• A Text Book of Optics-N Subramanyam, L Brijlal, S.Chand& Co.

• Optics-Murugeshan, S.Chand& Co.

• Unified Physics Vol.IIOptics, Jai PrakashNath&Co.Ltd., Meerut

• Optics,F.A. Jenkins and H.G.White, McGraw-Hill

• Optics, AjoyGhatak,TataMcGraw-Hill.

• Introduction of Lasers – Avadhanulu, S.Chand& Co.

• Principles of Optics- BK Mathur, Gopala Printing Press, 1995

The Guidelines to be followed by the question paper setters in Physics for the Second semester - end exams (2020-21**)**

PAPER TITLE: Wave Optics

Paper- II Semester – II Maximum marks: 70marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1(28 Marks)	**T+P**	**2**
Unit-2(28 Marks)	**T+P**	**2**
Unit-3(14Marks)	**T**	**1**
Unit-4(18 Marks)	**T+T**	**1**
Unit-5(24 Marks)	**T**	**2**
Unit-6	**0**	**0**

Note: **T** means one theory question, **P** means one problem

- **Section-A** contains **5** short questions and **3** problems out of these **8** questions, the student has to answer any **4**, each question carries **4** marks.
- **Section –B** contains **8** essay questions, the student has to answer any **5** questions, each question carries **10** marks.
- **The Question papers setters are requested to cover all the topics in the syllabus from Units I to V only as per the weightage given. Unit VI syllabus is excluded for the external exams.**

MODEL PAPER

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU – 521 165

I B.Sc. (PHYSICS)- II SEMESTER

PAPER TITLE: Wave Optics

Duration : 3Hours Maximum marks : 70marks Pass marks : 28 marks

SECTION-A

Answer any FOUR of the following 4x5=20m

1) Explain coma in lenses with a neat diagram

2) Explain the formation of colours in thin films

3) Explain the difference between interference and diffraction

4) State and explain Malus law

5) State and explain the principles of holography

6) Two thin convex lenses of focal length 0.25 m and 0.20 m are placed coaxially 10 cm apart. Find the focal length of combination.

7) In Newton's ring experiment, the diameter of the 10th dark ring is 0.433 cm. Find the wavelength of light, if the radius of curvature of the lens is 70 cm.

8) A half wave plate is constructed for a wavelength of 6000 Å, for what wave length does it work as a quarter wave plate.

SECTION – B

ANSWER ANY FIVE OF THE FOLLOWING (5 X 10 = 50 M)

9)What is chromatic aberration . obtain an expression for the chromatic aberration of a lens .Derive the condition for achromatism when the lens are in contact and seperated by a distance .

10) Describe the experimental arrangement to observe Newton's rings, by reflected light. Obtain an expressions for the diameter of nth bright and dark rings.

11) Describe with necessary theory Fresnels biprism experiment to determine the wavelength of light

12) What is diffraction. Describe Fraunhoffer's diffraction due to single slit .

13) Describe the construction and working of a zone plate with necessary theory

14) Describe the construction and working of Nicol prism. Explain how it is used as polarizer and analyser.

15) Write a note on spontaneous emission and stimulated emission. Explain the construction and working of ruby laser.

16) Explain Gabor hologram and discuss its limitations.

Practical Paper II: Wave Optics

Exam duration : 3Hours credits - 2 Maximum marks : 50 marks

Work load: 30 hrs 2 Hours per week

Minimum of 6 experiments to be done and recorded

1. Determination of radius of curvature of a given convex lens-Newton's rings.
2. Resolving power of grating.
3. Study of optical rotation –polarimeter.
4. Dispersive power of a prism.
5. Determination of wavelength of light using diffraction grating-minimum deviation method.
6. Determination of wavelength of light using diffraction grating-normal incidence method.
7. Resolving power of a telescope.
8. Refractive index of a liquid-hallow prism
9. Determination of thickness of a thin wire by wedge method
10. Determination of refractive index of liquid-Boy's method.

DEPARTMENT OF PHYSICS
A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS) , VUYYURU – 521 165
II B.Sc. 4th Semester (2020-21)

Paper IV: Thermodynamics &Radiation Physics

Work load:60 hrs per semester credits - 3 **4 hrs/week**

UNIT- I .. (11 hrs)

1.Kinetic theory of gases

Introduction –Deduction of Maxwell's law of distribution of molecular speeds, Transport phenomena-Viscosity of gases-thermal conductivity-diffusion of gases.

UNIT- II ..(14 hrs)

2. Thermodynamics

Introduction- Isothermal and adiabatic process- Reversible and irreversible processes-Carnot's engine and its efficiency-Carnot's theorem-Second law of thermodynamics. Kelvin's and Claussius statements-Entropy, physical significance –Change in entropy in reversible and irreversible processes-Entropy and disorder-Entropy of Universe-Temperature-Entropy (T-S) diagram-Change of entropy of a perfect gas- change of entropy when ice changes into steam.

UNIT- III ..(11 hrs)

3. Thermodynamic potentials and Maxwell's equations

Thermodynamic potentials-Derivation of Maxwell's thermodynamic relations-Clausius-Clayperon's equation-Derivation for ratio of specific heats-Derivation for difference of two specific heats for perfect gas. Joule Kelvin effect-expression for Joule Kelvin coefficient for perfect.

UNIT- IV ..(10 hrs)

4. Low temperature Physics

Introduction-Joule Kelvin effect-liquefaction of gas using porous plug experiment Joule expansion-Distinction between adiabatic and Joule Thomson expansion-Expression for Joule Thomson cooling-Liquefaction of helium, Kapitza's method-Adiabatic demagnetization, Production of low temperatures -applications of substances at low-temperature-effects of chloro and fluoro carbons on ozone layer.

UNIT- V ..(14 hrs)

5. Quantum theory of radiation

Blackbody-Ferry's black body-distribution of energy in the spectrum of black body-Wein's displacement law, Wein's law, Rayleigh-Jean's law-Quantum theory of radiation-Planck's law-Measurement of radiation-Types of pyrometers –Angstrom pyroheliometer-determination of solar constant, Temperature of Sun.

TEXT BOOKS:

1. BSc Physics, Vol.2, *Telugu Akademy, Hyderabad*

2. Thermodynamics, R.C. Srivastava, Subit K. Saha&Abhay K. *Jain Eastern Economy Edition*.

3. Unified Physics Vol.2, Optics & Thermodynamics, *Jai Prakash Nath&Co.Ltd., Meerut*

4. Second Year Physics, K. Ramakrishna,D.V.Brahmaji,A.Sreenivasa Rao & S.L.V. Mallikarjun, VikasPublications,Guntur.

REFERENCE BOOKS:

1. Fundamentals of Physics. Halliday/Resnick/Walker.*C. Wiley India Edition 2007*

2. Heat, Thermodynamics and Statistical Physics-N Brij Lal, P Subrahmanyam, PS Hemne, *S.Chand& Co.,2012*

3. Heat and Thermodynamics- MS Yadav, *Anmol Publications Pvt. Ltd, 2000*

4. University Physics, HD Young, MW Zemansky,FW Sears, *Narosa Publishers, New Delhi*

5. Text Book of +3 Physics – Samal, Mishra &Mohanty, National Library, Min.of Culture, Govt of India.

6. Modern Engineering Physics, A.S. Vasudeva, S.Chand& Co.,

The Guidelines to be followed by the question paper setters in Physics for the IV Semester - end exams

PAPER TITLE: Thermodynamics &Radiation Physics

Paper- IV Semester – IV Maximum marks: 70 marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1(15 Marks)	**T**	**1**
Unit-2(30 Marks)	**T+P**	**2**
Unit-3(20 Marks)	**T+P**	**2**
Unit-4(25 Marks)	**T**	**2**
Unit-5(30 Marks)	**T+P**	**1**

Note: **T** means one theory question, **P** means one problem

- **Section-A** contains **5** short questions and **3** problems out of these **8** questions, the student has to answer any **5**, each question carries **5** marks.
- **Section –B** contains **8** essay questions, the student has to answer any **5** questions, each question carries **10** marks.
- The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – IV	COURSE CODE:PHY401C
PAPER TITLE : THERMODYNAMICS AND RADIATION PHYSICS	

Duration : 3Hours Maximum marks : 70 Pass marks : 28

MODEL PAPER

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU – 521 165

II B.Sc. (PHYSICS)- IV SEMESTER

THERMODYNAMICS AND RADIATION PHYSICS

TIME: 3 Hrs **PHY – 401 C** **MAX MARKS: 70**

SECTION – A

ANSWER ANY FIVE OF THE FOLLOWING **(5 X 4 = 20 M)**

1) Explain about Transport phenomena of gases
2) Explain about reversible and irreversible processes
3) Deduce Clausius–Clapeyron's equation using Maxwell's relations
4) Discuss the effects of chloroflouro carbons on ozone layer
5) Define black body. Explain about Ferry's black body
6) Calculate the efficiency of a reversible Carnot's engine that operates between 327 degrees centigrade and 127 degrees centigrade.
7) Deduce the change in the boiling point of water when the pressure changes by 1 cm of mercury. Given L= 22.68X 10^5 J/kg, volume of the 1kg of water =10^{-3} and volume of 1 kg of steam = 1.674 m^3.
8) A star emits radiations of maximum energy at a wavelength of 5500 Å. Find the temperature of the star. (Wien's constant = 0.289 cm-K)

SECTION – B

ANSWER ANY FIVE OF THE FOLLOWING QUESTIONS **(5 X 10 = 50 M)**

9) Derive Maxwell's law of distribution of molecular speeds
10) Derive the construction and working of Carnot's heat engine. Derive an expression for its efficiency
11) Distinguish between isothermal and adiabatic processes. Derive the formula for the work done during adiabatic process.
12) Define the four thermodynamic potentials. Obtain Maxwells thermodynamic equations using these equations.
13) Define molar specific heats. Derive the specific heat relations from Maxwell's thermodynamic relations.
14) What is Joule-Kelvin effect? Derive an expression for the cooling produced when a real gas suffers Joule-Thomson effect.
15) Explain the method of adiabatic demagnetization for producing low temperatures
16) What is a pyrometer? Describe the construction and working of Disappearing filament optical pyrometer

Practical Paper IV: Thermodynamics

Exam duration : 3Hours credits - 2 Maximum marks : 50 marks

Work load: 30 hrs 2 Hours per week

Minimum of 6 experiments to be done and recorded

1. Specific heat of a liquid –Joule's calorimeter –Barton's radiation correction
2. Thermal conductivity of bad conductor-Lee's method
3. Thermal conductivity of rubber.
4. Measurement of Stefan's constant.
5. Specific heat of a liquid by applying Newton's law of cooling correction.
6. Heating efficiency of electrical kettle with varying voltages.
7. Mechanical equivalent of heat
8. Thermo emf - thermo couple potentiometer
9. Coefficient of thermal conductivity of copper- Searle's apparatus.
10. Thermal behavior of an electric bulb (filament/torch light bulb)
11. Measurement of Stefan's constant- emissive method
12. Temperature variation of resistance- thermistor.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS), VUYYURU – 521 165

III B.Sc. Physics – VI Semester – Paper –VII (2020-21**)**

Elective VII (A):(Electronics) Course Code: PHY – 601GE

SEMISTER-VI credits - 3 **4 hrs/week**

ELECTIVE PAPER –VII-A: ANALOG AND DIGITAL ELECTRONICS

UNIT- I (14 hours) Total Lectures: 60 hours

1. FET Construction ,Working ,Characteristics and uses; MOSEFT-enhancement MOSEFT,Depletion MOSEFT, Construction and Working, drain Characteristics of MOSEFT, applications of MOSEFT.

2. Photo electric devices: structure and operation, Characteristics and applications of LED and LCD.

UNIT- II (10hours)

3. Operational amplifier: Characteristics of ideal and practical OP-amp (IC-741),Basic differential OP-amp supply voltage, IC identification, internal blocks of OP-amp, its parameter off set voltages and currents, CMRR, slew rate, Concept of Virtual ground.

UNIT- III (10hours)

4. Applications of OP-amp: OP-amp as voltage amplifier, inverting amplifier, Non-inverting amplifier, Voltage follower, summing amplifier, difference amplifier, comparator, Integrator, Differentiator.

UNIT- IV (14hours)

5. Data processing circuits: Multiplexers, De –Multiplexers, encoders, decoders, Characteristics

6.For Digital IC's –RTL, DTL,TTL, CMOS (NAND&NOR Gates).

UNIT- V (12hours)

7. Sequential digital circuits: Flip-flops, RS, clocked SR, JK, D, T, Master-Slave Flip-flops .

8. Counters: Asynchronous counters-modulo 4counter-modulo 16 ripple counter, Decade counter, Synchronous counter.

REFERENCE BOOKS :

1. Digital Electronics by G.K.Kharate Oxford University Press.
2. Unified Electronics by Agarwal and Agarwal.
3. OP-Amp and Linear ICs by Ramakanth A Gayekward, 4th edition PHI
4. Digital Principles and Applications by Malvino and Leach, TMH, 1996, 4th edition.
5. Digital Circuit design by Moris Mano, PHI.
6. Switching theory and Logic design by A.Anand kumar, PHI
7. Operations amplifier by S.V.Subramanyam.

The Guidelines to be followed by the question paper setters in Physics for the VI Semester - end exams

PAPER TITLE: (ELECTIVE PAPER –VII-A): ANALOG AND DIGITAL ELECTRONICS

Paper- VII-A Semester – VI Maximum marks: 70 marks
Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (24 Marks)	**T**	**2**
Unit-2 (18 Marks)	**T+P**	**1**
Unit-3 (28Marks)	**T+P**	**2**
Unit-4 (18Marks)	**T+T**	**1**
Unit-5 (24Marks)	**T**	**2**

Note: **T** means one theory question, **P** means one problem

- **Section-A** contains **6** short questions and **2** problems out of these **8** questions, the student has to answer any **5**, each question carries **4** marks.
- **Section – B** contains **8** essay questions, the student has to answer any 5 questions. Each question carries **10** marks.

The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – V	COURSE CODE : PHY-601 GE
PAPER TITLE : ELECTIVE PAPER –VII-A: ANALOG AND DIGITAL ELECTRONICS	

Duration : 3Hours Maximum marks : 70 Pass marks : 28 marks

Model paper –VII(A) Elective (Electronics)

Semester -VI

Elective Paper –VII-(A): Analog and Digital Electronics

SECTION-A

Time:3hr **Max.marks:70**

Answer any five of the following questions: **5x4=20M**

1. Discuss the advantages of FET over BJT.
2. Explain the concept of Virtual Ground.
3. Describe the concept of OP-amp Summing amplifier.
4. The summing amplifier as Ro=10K, R1=10K, R2=5K R3=6K.If V1=6V, V2= -3V, V3= -0.8V. Calculate V0?
5. Explain the Working of Demultiplexer with circuit diagram.
6. Explain the working of TTL logic.
7. Explain the working of RS Flip flop .Write its Truth Table.
8. Find the gain of inverting amplifier with given data. R_1= 5000Ω, R_f= 60 KΩ.

SECTION-B

Answer any five of the following questions: **10x5=50M**

9. Explain the construction , Working and V-I Characteristics of JFET.
10. Describe Construction and Working Of LED. Mention its application.
11. What are the Characteristics of an ideal OP-amp .Draw the block diagram of OP-amp. Define the term CMRR and Slew rate.
12. Derive the Expression per Closed loop Gain of an inverting Amplifier. Explain how OP-amp acts as an Integrator.
13. Explain the working of Integrator, Differentiator.
14. What is a Multiplexer? Explain its Working and Analogy.
15. Describe the Working of Master Slave JK Flip flop. Give its Truth Table.
16. Explain Asynchronous counter and Synchronous counter.

ELECTIVE PAPER –VII PRACTICAL: ANALOG AND DIGITAL ELECTRONICS credits – 2 2 Hours per week

Minimum of 6 experiments to be done and recorded

1. Characteristics of FET
2. Characteristics of MOSEFT
3. Characteristics of LDR
4. Characteristics of OP-amp.(IC-741)
5. OP-amp as amplifier/inverting amplifier
6. OP-amp as integrator/differentiator
7. OP-amp as summing amplifier /difference amplifier
8. Master-Slave Flip-flop
9. JK Flip-flop

DEPARTMENT OF PHYSICS

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS), VUYYURU – 521 165

III B.Sc. Physics – VI Semester – Paper –VIII (2020-21**)**

SEMISTER-VI Course Code: PHY -602 CE credits - 3 4 hrs/week

CLUSTER ELECTIVES VIII-A

PAPER-VIII-A-1: INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER

UNIT- I (10hours)

MICROPROCESSOR:

General architecture of microprocessor, architecture of 8085 microprocessor, 8085 pin diagram, Concept of data bus, address bus, and control bus, 8085 programming instruction classification.

UNIT-II: (10hours)

8085 Interfacing Memory

Introduction-Memory structure and its requirements-basic concepts in memory interfacing. Address Decoding-Interfacing circuit. Port-mapped I/O or Direct I/O interface (8-bit Addressing)-Memory Indirect I/O mapped Interfaces (16-bit Addressing)-Port mapped versus Memory mapped I/O. I/O Device Interfacing.

UNIT-III (15hours)

8085 Microprocessor Applications

Introduction-Programmed data transfer scheme. Direct Memory Access (DMA) –Types. 8255A PPI-Block diagram. 8259A PIC-Pin diagram and functional description. 8257 Programmable DMA controller-Block diagram and Pin description.

UNIT-IV: (13hours)

8051 Architecture-I:

Types of microcontrollers- microcontroller architecture, CISC, RISC, operation of microcontroller, basic building blocks of microcontroller, comparison of microcontroller and microprocessor- block diagram of 8051- I/o pins and ports.

Microcontroller Resources.

UNIT-V: (12hours)

8051 Architecture-II:

8051 Flag bits and PSW register and DPTR register- Memory Organization-Special function registers- PSW register-Counters and Timers-Serial I/O-8051 Microcontroller Interrupts.

REFERENCE BOOKS:

1. Unified Electronics – VI(A), Micro controllers and applications
2. THE 8051 micro controller and embedded systems using assembly and C, M.A. Mazidi, J.G.Mazidi and R.D.McKInlay second Ed.,2007 Pearson education India.
3. Unified Electronics – V(A),Microprocesser (Intel 8085)
4. Micro controllers in practice, I susena and Mitescu, 2005, Springer.

The Guidelines to be followed by the question paper setters in Physics for the VI Semester - end exams

CLUSTER ELECTIVES VIII-A

PAPER-VIII-A-1: INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER

Paper- VIII-A-1 Semester – VI Maximum marks:70 Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (28 Marks)	**T+T**	**2**
Unit-2 (14Marks)	**T**	**1**
Unit-3 (28Marks)	**T+T**	**2**
Unit-4 (24Marks)	**T**	**2**
Unit-5 (18 Marks)	**T+T**	**1**

Note: **T** means one theory question.

- **Section-A** contains **8** short questions, out of these **8** questions, the student has to answer any **5**, each question carries **4** marks.
- **Section – B** contains **8** essay questions, the student has to answer any 5 questions. Each question carries **10** marks.

The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – VI	COURSE CODE : PHY-602 CE

PAPER TITLE : CLUSTER ELECTIVES VIII-A

PAPER-VIII-A-1: INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER

Duration : 3Hours Maximum marks : 70 Pass marks : 28 marks

Model Paper- Sem VI

III B.Sc - PHYSICS (cluster) – VI SEMESTER

INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLERS

PHY- 602 CE **Max marks : 70**

SECTION-A

Answer any FIVE of the following questions : **(5x4=20M)**

1) Define data bus and address bus.
2) Define Address Decoding.
3) Write a short note on asynchronous data transfer scheme.
4) What is direct access memory?
5) Write about CISC.
6) Write about operation of microcontroller.
7) Write about program memory.
8) Write about memory expansion.

SECTION – B

Answer any FIVE of the following questions : (5x10 = 50 M)

9) Describe the general architecture of Microprocessor.
10) Draw the 8085 Microprocessor pin diagram and explain about different pins.
11) Discuss about Direct I/O interface of 8-bit?
12) Give the functional description of 8259A.
13) Describe the Block diagram of 8255A.
14) Draw the pin diagram of 8051and briefly describe the pins.
15) Write the basic building blocks of microcontroller.
16) Write short notes on

a) R-registers
b) Program status word register

c) Data Pointer registers.

PAPER-VIII-A-1: Practical: INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER credits – 2

2 Hours per week

Minimum of 6 experiments to be done and recorded

1. To find that the given number is prime or not.

2. To find the factorial of a number.

3. Write a program to make the two numbers equal by increasing the smallest number and decreasing the largest number.

4. Use one of the four ports of 8051 for O/P interfaced to eight LED's simulate binary counter (8 bit) on LED's.

5. Program to glow first four LED then next four using TIMER application.

6. Program to rotate the contents of the accumulator first right and then left.

7. Program to run a count down from 9-0 in the 7 segment LED display.

8. To interface 7 segment LED display with 8051 Microcontroller and display 'HELP' in the 7 segment LED display.

9. To toggle '1234' as '1324' in the 7 segment LED.

10. Interface stepper motor with 8051 and write a Program to move the motor through a given angle in clock wise or counter clock wise direction.

11. Application of Embedded system: Temperature measurement, some information on LCD display, interfacing a key board.

DEPARTMENT OF PHYSICS
A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
III B.Sc. 6th Semester (2020-21)

COURSE CODE : PHY-603 CE credits - 3

Cluster Elective Paper – VIII- A-2 : Computational Methods and Programming

No. of Hours per week : 04 Total Lectures : 60

UNIT – I (12 hrs)

1. Fundamentals of C language: C character set – Identifiers and keywords – structure of c program. Constants- variables- Data types- Declarations of variables – Declaration of storage class – Defining symbolic constants – Assignment statement.
2. Operators : Arithmetic operators- Relational operators – Logic operators – Assignment operators – Increment and decrement operators – Conditional operators.

UNIT –II (12 hrs)

3. Expressions and I/O statements : Arithmetic expressions – precedence of arithmetic operators – Type converters in expressions – Mathematical (Library) functions – Data input and output – The getchar and putchar functions – Scanf – Printf simple programs.
4. Control statements: IF – ELSE statements – Switch statements – The operators – GO TO- while, DO-While, FOR statements – BREAK and CONTINUE statements.

UNIT – III (12 hrs)

5. Arrays: One dimensional and two dimensional arrays – Initialization –Type declaration – Inputting and outputting of data for arrays – Programs of matrices addition, subtraction and multiplication.
6. User defined functions: The form of C functions – Return values and their types – Calling a function – Category of functions. Nesting of functions. Recursion. ANSI C functions – Function declaration. Scope and life of variables in functions.

UNIT – IV (12 hrs)

7. Linear and Non-Linear equations: Solution of Algebra and transcendental equations – Bisection, Falsi position and Newton – Rhapson methods – Basic principles – Formulae – algorithms.
8. Simultaneous equations: Solutions of simultaneous linear equations – Guass elimination and Gauss seidel iterative methods – Basic principles – Formulae-Algorithms.

UNIT – V (12 hrs)

Interpolations : Concept of linear interpolation – Finite differences –
Newton's and Lagrange's interpolation formulae – principles and Algorithms.

9. Numerical differentiation and integration : Numerical differentiation –

algorithm for evaluation of first order derivatives using formulae based on Taylor's series – Numerical integration – Trapezodal and Simpson's 1/3 rule – Algorithms.

REFERENCE BOOKS :

1.Introductory methods of Numerical Analysis : SASTRY

2. Numerical Methods : Balaguruswamy

3. Programming in ANSI C (TMH) : Balaguruswamy

4.Programming with 'C' – Byron Gottafried, Tata Mc Graw Hill

The Guidelines to be followed by the question paper setters in Physics for the VI Semester - end exams

Cluster Elective Paper – **VIII- A-2** : Computational Methods and Programming

Paper- VIII-A-2 Semester – VI Maximum marks: 70 marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (28Marks)	**T+T**	**2**
Unit-2 (28Marks)	**T+T**	**2**
Unit-3 (28Marks)	**T+T**	**2**
Unit-4 (14Marks)	**T**	**1**
Unit-5 (14 Marks)	**T**	**1**

Note: **T** means one theory question.

- **Section-A** contains **8** short questions, out of these **8** questions, the student has to answer any **5**, each question carries **4** marks.
- **Section – B** contains **8** essay questions, the student has to answer any 5 questions. Each question carries **10** marks.

The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – VI	
PAPER TITLE : Cluster Elective Paper – **VIII- A-2** : Computational Methods and Programming	

Duration : 3Hours Maximum marks : 70 Pass marks : 28 marks

Model Paper :Sem VI
III B.Sc - PHYSICS (cluster) – VI Semester

COMPUTATIONAL METHODS AND PROGRAMMING

Paper Code : PHY 603 CE **Max.Marks : 70**

SECTION-A

Answer any FIVE of the following questions : **(5x4=20M)**

1) Write different data types in C with Examples.
2) Structure of C program with Examples.
3) Explain about Putchar & getchar.
4) Explain about IF-Else Statement.
5) Define 2D array in C with example
6) Define Function with Examples.
7) Write the false position algorithm
8) Describe the Trapezoidal rule

SECTION-B

Answer any FIVE of the following questions : **(5x10=50M)**

9) Explain about storage classes in C
10) Explain different operators available in C
11) Explain about iterative statements in C.
12) Explain about Print f() & Scan f() function with examples.
13) Write a program for matrix multiplication
14) Explain about Recursion with example programme.
15) Explain about nesting of functions with example
16) Write the algoritm and flowchart of Newton Raphson formula.

Cluster Elective Paper – VIII-A-2 : Practical

Computational Methods and Programming

2 hrs/ week credits – 2

Minimum of 6 experiments to be done and recorded

1. Write a program that reads an alphabet from keyboard and display in the reverse order.
2. Write a program to read and display multiplication of tablets.
3. Write a program for converting centigrade to Fahrenhit temperature and Fahrenheit temperature centigrade.
4. Write a program to find the largest element in an array.
5. Write a program based on percentage calculation , the grade by entering the subject marks . (If percentage > 60, I class, if percentage between 50 &60 II class, if percentage between 35 & 50 III class, if percentage below 35 fail)
6. Write a program for generation of even and odd numbers up to 100 using while, do – while and for loop.
7. Write a program to solve the quadratic equation using Bisection method.
8. Write a program for integration of function using Trapezoidal rule.
9. Write a program for solving the differential equation using Simpson's 1/3 rule.

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(AUTONOMOUS) , VUYYURU – 521 165
III B.Sc. 6th Semester (W.E.F 2020-21)
COURSE CODE : PHY-604 CE

Cluster Elective Paper – **VIII-A-3**: **Electronic Instrumentation**

No.of Hours per week: 04 Total Lectures: 60

UNIT -1 (12 Hours)

1. Basic of measurements: Instruments accuracy, precision, sensitivity- errors in measurements- Basic meter movement-PMMC (Permanent Magnetic Moving Coil).
2. Measurement of dc current: DC ammeter- multi range ammeters-the ARYTON Shunt or universal Shunt.
3. Measurement of dc voltage: DC Voltmeter – Multi Range Voltmeter- Voltmeter sensitivity.

UNIT – II (10 HOURS)

4. **Analog Multimeter:** Multimeter - as dc ammeter-as dc voltmeter-as ac voltmeter-as ohm meter-Multimeter operating instructions.

5. Digital instruments: Principle and working of digital instruments, characteristics of a digital meter, working principle of digital voltmeter.

UNIT –III (14 HOURS)

6. CRO: Block diagram of basic CRO, construction of CRT, electron gun, electrostatic focusing and acceleration (only explanation), time base operation, synchronization, front panel controls, specifications of CRO and their significance.
7. Applications CRO: Measurement of voltage- dc and ac, frequency, time period. Special features of dual trace CRO. Digital storage oscilloscope: block diagram and principle of working.

UNIT – IV (12 HOURS)

8. Diode as Rectifier – Half wave rectifier, Full wave rectifier – construction, working and efficiency. (no derivation)
9. Feedback in Electronic circuits – Positive and Negative feedback, expressions for gains, advantages of negative feedback, Oscillators, Barkhausen criteria, RC phase shift oscillator (no derivation)

UNIT – V (12 HOURS).

10. Signal Generators: Block diagram, working and specifications of low frequency signal generators, pulse generator, function generator .
11. Bridges: Measurement of resistance by Wheat stone's Bridge- Sensitivity of Wheat stone's Bridge- Applications of Wheat stone's Bridge-Limitations of Wheat stone's Bridge.

REFERENCE BOOKS :

1. A text book in electrical technology by B.L. Thereja (S.Chand & CO)

2. Digital circuits and systems by venugopal 2011 (Tata Mcgraw Hill)
3. Digital Electronics by SubrathaGoshal 2012 (Cengage Learning)
4. Electronic Instrumentation by HS Kalsi (Tata Mcgraw Hill)

The Guidelines to be followed by the question paper setters in Physics for the VI Semester - end exams

Cluster Elective Paper – **VIII-A-3**: **Electronic Instrumentation**

Paper- VIII-A-3 Semester – VI Maximum marks: 70 marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (28Marks)	**T+T**	**2**
Unit-2 (18 Marks)	**T+T**	**1**
Unit-3 (28Marks)	**T+T**	**2**
Unit-4 (14 Marks)	**T**	**1**
Unit-5 (24 Marks)	**T**	**2**

Note: **T** means one theory question

- **Section-A** contains **8** short questions out of these **8** questions, the student has to answer any **5**, each question carries 4 marks.
- **Section – B** contains **8** essay questions, the student has to answer any 5 questions. Each question carries **10** marks.

The Question papers setters are requested to cover all the topics in the syllabus as per the weightage given by us.

SEMESTER – VI	COURSE CODE : PHY-604 CE

PAPER TITLE : Cluster Elective Paper – **VIII-A-3**: **Electronic Instrumentation**

Duration : 3Hours Maximum marks : 70 Pass marks : 28 marks

Model Paper :Sem VI
III B.Sc - PHYSICS (CLUSTER) – VI Semester
ELECTRONIC INSTRUMENTATION

Paper Code : PHY 604 CE

Max.Marks:70

SECTION-A

Answer any FIVE of the following questions : **(5x4=25M)**

1) Explain the following terms (a) precesion (b) sensitivity.
2) Explain Multirange d.c voltmeter with a circuit diagram.
3) Write briefly the specifications of an electronic voltmeter.
4) Explain the function of various parts of an electronic gun.
5) Explain the time base operation of CRO.
6) Write the characteristics of a digital meter.
7) Explain the working of function generator.
8) What are the Limitations of Wheat stone's Bridge

SECTION-B

Answer any FIVE of the following questions :

(5x10=50M)

9) Explain different types of errors that occur in measurements.
10) Explain the principles of voltage measurement with a block diagram.
11) Draw the basic block diagram of cathode ray oscilloscope and explain the functions of each block.
12) Explain with a block diagrm the principle and working of digital storage oscilloscope .
13) Explain the working of a Multimeter as micro ammeter- as dc ammeter- as dc voltmeter-as ac voltmeter- as ohm meter
14) Explain the principle and working of digital instruments .
15) Explain the operation of a signal generator with the help of a suitable block diagram .
16) Explain the principle and working of Wheat stone's bridge .

Cluster Elective Paper – VIII-A-3-Practical: Electronic Instrumentation 2hrs/Week.

Paper Title: Project Work Paper code: PHY-604 CE

The students have chosen Physics as cluster elective and "Ardino microcontroller based projects" for this Academic year.

Scheme of valuation

1. External : 25 marks given by the examiner (viva)
2. Internal : 25 marks

a) Written viva :10 marks

b) Submission of the Project book : 15 marks

Total = 50 marks

Certificate course

Electrical Motor Winding

Unit-I

DC motors-Toy motors, fan motor, other types of motors

AC motors

Single Phase motor- design and working

Three phase motor- design and working

Unit-II

DC -Dynamo- different types

AC Dynamo-

Single Phase - design and working

Three Phases - design and working

Unit-III

Delta connections

Star connections

Different circuits of House hold applications.

Revised CBCS w.e.f. 2020-21

SKILL DEVELOPMENT COURSES

Science *Stream* ***Syllabus of*** **SOLAR ENERGY**

Total 30 hrs (02h/wk), 02 Credits & Max Marks: 50

Learning Outcomes:

After successful completion of the course, students will be able to:

1. Acquire knowledge onsolarradiation principles with respect to solar energy estimation.

2. Get familiarized with various collecting techniques of solar energy and its storage

3. Learn the solar photovoltaic technology principles and different types of solar cells for energy conversion and different photovoltaic applications.

4. Understand the working principles of several solar appliances like Solar cookers, Solar hot water systems, Solar dryers, Solar Distillation, Solar greenhouses

SYLLABUS:

UNIT-I – Solar Radiation: (6 hrs) Sun as a source of energy, Solar radiation, Solar radiation at the Earth's surface, Measurement of Solar radiation-Pyroheliometer, Pyranometer, Sunshine recorder, Prediction of available solar radiation, Solar energy-Importance, Storage of solar energy, Solar pond

UNIT-II – Solar Thermal Systems: (10 hrs) Principle of conversion of solar radiation into heat, Collectors used for solar thermal conversion: Flat plate collectors and Concentrating collectors, Solar Thermal Power Plant, Solar cookers, Solar hot water systems, Solar dryers, Solar Distillation, Solar greenhouses.

UNIT-III – Solar Photovoltaic Systems: (10 hrs) Conversion of Solar energy into Electricity - Photovoltaic Effect, Solar photovoltaic cell and its working principle, Different types of Solar cells, Series and parallel connections, Photovoltaic applications: Battery chargers, domestic lighting, street lighting and water pumping

Co-curricular Activities (Hands on Exercises): (04 hrs)

[Any four of the following may be taken up]

1. Plot sun chart and locate the sun at your location for a given time of the day.

2. Analyse shadow effect on incident solar radiation and find out contributors.

3. Connect solar panels in series & parallel and measure voltage and current.

4. Measure intensity of solar radiation using Pyranometer and radiometers.

5. Construct a solar lantern using Solar PV panel (15W)

6. Assemble solar cooker

7. Desigining and constructing photovoltaic system for a domestic house requiring 5kVA power

8. Assignment/Model exams.

Reference Books:

1. Solar Energy Utilization, G. D. Rai, Khanna Publishers

2. Solar Energy- Fundamentals, design, modeling & applications, G.N. Tiwari, Narosa Pub., 2005.

3. Solar Energy-Principles of thermal energy collection & storage, S.P. Sukhatme, Tata McGraw Hill Publishers, 1999.

4. Solar Photovoltaics- Fundamentals, technologies and applications, Chetan Singh Solanki, PHI Learning Pvt. Ltd.,

5. Science and Technology of Photovoltaics, P. Jayarama Reddy, BS Publications, 2004.

Recommended MODEL QUESTION PAPER FORMAT

Max. Marks: 50 **Time: 1½ hrs (90 Minutes)**

SECTION- A **(4x5M=20 Marks)**

Answer any four questions. Each answer carries 5 marks

(At least 1 question should be given from each Unit)

	1.
	2.
	3.
	4.
	5.
	6.
	7.
	8.

SECTION -B **(3x10M = 30 Marks)**

Answer any three questions. Each answer carries 10 marks

(At least 1 question should be given from each Unit)

	1.
	2.
	3.
	4.
	5.

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF HISTORY

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

13-07-2020

Minutes of the meeting of the Board of Studies in History of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at11.30A.M ON 13.07.2020 In the Department of History.

(Through Online mode meeting due to Covid-19 pandemic situation)

Dr. D. RAJYA LAKSHMI, HOD, History has presided over the BOS meeting

Members Present:

1)	(Dr. D. RAJYA LAKSHMI)	Chairman	Head, Department of History AG & SG S Degree College of Arts & Science Vuyyuru-521165
2)	(DR.G. BeaulahPearl Sunanda)	University Nominee	Head, Department of History & Tourism Marris Stella College, Vijayawada.
3)	(Prof.S. Murali Mohan)	Academic Council Nominee	Head, Department of History& Archeology, AcharyaNagarjuna University, Guntur.
4)	(Sri. V. Swamulu)	Academic Council Nominee	Head, Department of History Sir C. R. Reddy College Eluru, W.G.Dist.
5)	(Sri. K. Kiran)	Alumni Nominee	Lecturer in Success College, Vuyyuru

AGENDA

1. To recommend any changes to the syllabi in 1st, 3rd, 5th Semesters of 1st, 2rd3rd Year B.A. History Papers for Academic Year 2020-2021.
2. To recommend the Blue Print and Model Question Papers of 1st3rdand 5th Semesters of Degree B.A papers for the Academic Year 2020-2021.
3. To recommend the guidelines to be followed by the Question Paper Setters in History for the 1st 3rd and 5th Semester-end exams.
4. To recommend the teaching and evaluation methods to be followed under Autonomous Status.
5. To suggest innovative methods of teaching.

RESOLUTIONS

1. Discussed and recommended syllabi for1st Semester as per APSHE, Discussed and recommend the syllabi without changes for the 3rd, 5th Semesters of 2nd & 3rd Year B.A. as it is of 2019-2020 Academic Year syllabi for 2020-2021.
2. Discussed and recommended the syllabi of 1st 3rd and 5th semesters of Degree B.A for the Academic Year 2020-2021.

a) Semester-I(HIS 101C): Paper- I. Ancient Indian History &Culture (From Indus Valley Civilization to 13th Century AD.) As recommended by APSHE.

b) Semester-III(HIS301C):Paper-III. Late Medieval &colonial History of India (From1526-1857 AD.)

c) Semester-V(HIS 501C & HIS 502C)Paper-V,VI. Age of Rationalism and Humanism – The World Between 15th&18th Centuries, History & Culture of Andhra Desa(From 12th Century to 19th Century).

Discussed and recommended the model question papers of 1st 3rd and 5thsemesters of B.A Degree.

3. Discussed and recommended the guidelines to be followed by the question paper setters of History for 1st3rd and 5th semesters B.A Degree.
4. Discussed and recommended the following teaching and evaluation methods:
   A) Teaching methods :
   Besides the conventional methods of teaching, it is also resolved to use various other methods like group discussions, quiz, develop lessons for power point presentations etc, for the better understanding of contents.
   B) Evaluation of a student is done by the following procedure :
   a) Internal Assessment Examinations:
      i) Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment.1st 2nd 3rd4th 5th & 6th Semesters of 1st 2nd 3rd BA.
      ii) Out of these 30 marks, 20 marks are allocated for internal tests and 5 marks for Assignments. The two tests will be conducted and average of these two tests shall be deemed as the marks obtained by a student, and remaining 5 marks are allocated for attendance under CBCS pattern.

   b) Semester – End Examinations:
      i) The maximum marks for Semester-End examinations shall be 70 for IBA, IIBA and IIIBA, and duration of the examination shall be 3 Hours.
      ii) Semester-End examinations shall be conducted at the end of every semester.
5. Discussed and recommended for organizing Seminars, Guest lectures, and Workshops to upgrade the knowledge of students and to impart new skills of learning as frequently as possible.
6. And resolved to adopt changes made by APSHE. And adopted Syllabi for 1st semester according to APSHE for 2020-2021Academic year.

D Rajulu
Chairman

13/7/2020

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P – 521165
(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: I B.A SEMESTER – I (CBCS) PAPER-I
SYLLABUS: HISTORY Title of the Paper: ANCIENTINDIAN HISTORY & CULTURE
(From Indus Valley Civilization to 13th Century A.D)
Paper Code: HIS 101C (W.e.f. 2020-2021) Max Marks 70
Pass Marks 28
No. of Hours per week: 5 No. of Credits: 4

UNIT -1

Survey of Sources –Literary Sources – Archaeological Sources, Ancient Indian Civilization(From Circa 3000 BC to 6th C.BC) Indus Valley Civilization: Salient Features, Vedic Age –Society, Polity, Economy, Culture during early and later Vedic Period. (20 Hrs)

UNIT –II

Ancient Indian History & Culture (6th Century BC to 2nd Century AD):Doctrines and Impact of Jainism – Buddhism :Mauryan Administration, Society, Economy & Culture-Ashoka's Dhamma, Kanishka's Contribution to Indian Culture. (15 Hrs)

UNIT-III

History & Culture of South India(2nd Century BC to 8th Century AD):Sangam Literature, Administration, Society, Economy and Culture under Satavahanas Cultural Contribution of pallavas.(20 Hrs)

UNIT-IV

India from 3rd Century AD to 8th Century AD: Administration, Society, Economy , Religion, Art, Literature and Science &Technology under Guptas – Samudra Gupta, Cultural contribution of Harsha: Arab Conquest of Sind and its Impact.(20 Hrs)

UNIT-V

History & Culture of South India (9th Century AD to 13 Century AD): Local Self Government of Cholas: Administration, Society, Economy and Culture under Kakatiyas-Rudrama Devi. (15 Hrs)

References:

1. A.L. Basham, The Wonder That Was India
2. D.N.Jha, Ancient India
3. D.D.Kosambi, An Introduction to the Study of Indian History
4. D.P.Chattopadhyay, Science and Society in Ancient India
5. B.N.Mukherjee, The Rise and Fall of the Kushana Empire
6. K.A. NilakanthaShastri, A History of South India
7. R.C.Majumdar, K.K.Dutta&H.C.RoyChowdhuri (ed.), Advanced History of India
8. Kumkum Roy, The Emergence of Monarchy in North India: eighth to fourth centuries BC
9. RomilaThapar (et. al). India: Historical Beginnings and the Concept of the Aryan
10. M.L.K. Murthy, *Pre-and Protohistoric Andhra Pradesh upto 500 B.C.*, New Delhi, 2003
11. K. Sathyanarayana, A Study of the History and Culture of Andhras

Mandatory Co-Curricular Activity:

Map pointing should be a compulsory activity as it helps student to understand vividly and clearly than the text and **should be made part of Examination by allotting marks for this skill-based activity.**

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CLASS: I B.A SEMESTER – I(CBCS) PAPER-I
Model Paper: HISTORY Title of the Paper: ANCIENT INDIAN HISTORY &CULTURE
(From Indus Valley Civilization to 13th Century A.D) Pass Marks 28
Paper Code: HIS 101C (W.e.f. 2020-2021) Max Marks 70

SECTION – A

ANSWER ANY TWO OF THE FOLLOWING 5X2=10
(Map pointing is Compulsory attempted Question)

1.Gandhara Art
2.Narasimha Varma – I
3.Mark the following places in India Map
a. Prayag b. Ujjaini c. Sanchi d. Kalinga e. Kanchi
(OR)
4.Mark the Gupta Empire and Following places in India Map
a. Malva b. Pataliputra c. Tamralipi d. Nalanda

SECTION– B

ANSWER ANY FOUR OF THE FOLLOWING 4X15=60

5. Describe the main features of Indus Valley civilization
6. Explain the Conditions of Vedic Culture.
7. What are the teachings of Mahaveera
8. Bring out the salient features of Mauryan Administration
9. Briefly describe the socio-economic conditions under Satavahanas
10. Examin the Socio, Economics, Literary conditions of Sangam Age
11. Write about the achievements of Samudragupta.
12.Analyse the Socio-Economic conditions of Kakatiyas.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
VUYYURU, A.P. – 521165
(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

SUBJECT- History	HIS 101C	I B.A

TITLE: ANCIENT INDIAN HISTORY AND CULTURE
(From Indus Valley Civilization to 13th CenturyA.D)

Semester – I

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	-	1	1	1	1
B 15 Marks Questions	2	2	2	1	1
Weightage	30	35	35	20	20

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P-521165

(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: II B.A **SEMESTER – III (CBCS)** **PAPER-III**

SYLLABUS: HISTORY **Title of the Paper: LATE MEDIEVAL & COLONIAL HISTORY OF INDIA**

(From 1526 -1857A.D) **Pass Marks 28**

Paper Code: HIS 301C **(W.e.f. 2020-2021)** **Max Marks 70**

No.of Hours per week:5 **No. of Credits:4**

Unit – I

India from 1526 _1707AD .Emergence of Mughal empire -Sources – Political condition in India on the eve of Babur Invasions.Brief summary of Mughal polity –SherSha- Sur Interregnum Expansion& Consolidation –of Mughal Empire.(25hours)

Unit – II

Administration – Economy-Society –Cultural Developments Under Mughals .Dis Integration of Mughals –Rise of Marathas- Peshwas.
(20hours)

Unit – III

Advent of European powers – Portuguese, Dutch, English and French. Expansion and consolidation of British Empire – Wars – diplomacy – Policies pursued – Subsidiary Alliance – Doctrine of Lapse. (20hours)

Unit – IV

Economic Policies and Changes – Mercantilism and Free – Trade Policies – Land Revenue Settlements – Permanent – Ryotwari – Mahalwari Systems – Integration Commercialization of Agriculture – Condition of Peasants – Famines – Decline of Cottage Industries (de-industrialization). (15hours)

Unit – V

Anti-Colonial Upsurge-Peasant and Tribal Revolts – 1857 Revolt-Causes: Results and Nature MangalPande, Bahadur Shah – II, Tantiyatope , Jhansi Lakshmi Bai, Nanasaheb.(15hours)

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
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SUBJECT- History	HIS 101C	I B.A

TITLE: ANCIENT INDIAN HISTORY AND CULTURE
(From Earliest Times to 600 A.D)

Semester – I

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	-	1	1	1
B 15 Marks Questions	1	2	2	2	1
Weightage	20	30	35	35	20

References:

1. R.C. Majundar, H.C.-Rayachandhuri&KalikinkarDatta, An Advanced History of India Part-II – Medieral India.
2. L.P. Sharma, The Mughal Empire, New Delhi, 1988.
3. L.P. Sharma, History of Medieral India, 1000 – 1740 A.D. 2nd ed. (1987)
4. C.A. Bayly, Indian Society and the Making of the British Empire.
5. Rajat K Ray, ed, Entrepreneunship and Industry in India, 1800-1947.
6. Bipan Chandra, Rise and growth of Economic Nationalism in India.
7. Bepan Chandra, K.N. Panikkar, Mildula Mukherjee,
8. SuchetraMahajan&AdithyaMukharjee, India's struggle for Independence.
9. P.C. Joshi, Rebellion 1857: A Sympossim.
10. J.F. Richards, The Mughal Empire
11. IrfanHabib, Agrarian system of Mughal India, 1526-1707
12. Ashin Das Gupta, Indian Merchants and the Decline of Surat 1700-1750.
13. Stewart Gordon, The Marathas 1600-1818.
14. Ebba Koch, Mughal Art and Imperial Ideology.
15. Satish Chandra, Essays on Medieral Indian History
16. MuzaffarAlam and Sanjay Subramanaian, eds, The Mughal state, 1526-1750.
17. Andre Wink, Land and Sovereignty in India.
18. HarbansMukhia, The Mughals of India.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P-521165

(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: II B.A **SEMESTER – III (CBCS)**

PAPER-III

SYLLABUS: HISTORY **Title of the Paper: INDIAN HISTORY AND CULTURE (From 1526 -1857 A.D)**

Paper Code: HIS -301C **(W.e.f. 2020-2021)** **Max Marks 70**

Pass Mark: 28

Model Question Paper

SECTION - A

ANSWER ANY TWO OF THE FOLLOWING **2X5=10**

1 .Nurjahan

2.Mansabdari System

3 .Subsidiary Alliance

4.Regulating Act

SECTION -B

ANSWER ANY FOURE OF THE FOLLOWING

4X15=60

5. Describ the Achievements of Babur.

6 .Bring out the salient features of Mughal Administration.

7. How did Shivaji establish an Independent Maratha Empire

8. Discuss the greatness of Robert Clive.

9. Describe about the Doctrine of Lapse.

10. Write about the Land Revenue settlements adopted by the British.

11. Assess how the Indian Economy was ruined under the British rule .

12. Analyse the causes for the outbreak of 1857 Revolt.

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SUBJECT- History	HIS 301C	II B.A

TITLE: INDIAN HISTORY AND CULTURE
(From 1526-1857 A.D)

Semester – III

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	1	1	1	-
B 15 Marks Questions	1	2	2	2	1
Weightage	20	35	35	35	15

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(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

III BA History Syllabus:: Semester – V (CBCS) Paper – V

Title of the Paper – Age of Rationalism and Humanism –The World Between 15th & 18th Centuries.

Paper Code; HIS-501C (w .e. f . 2020 - 2021)

No.of Hours per week:5 No.of Credits:4

Unit – 1

Feudalism -Geographical Discoveries: Causes – Compass & Maps – Portugal Leads and Western World Follows – Consequences;

Unit – II

The Renaissance Movement: Factors for the Growth of Renaissance – Characteristic Features - Transformation from Medieval to Modern World; Reformation & Counter Reformation Movements: The Background – Protestantism – Spread of the Movement– Counter Reformation– Effects of Reformation

Unit - III

Emergence of Nation States: Contributory Factors - England and other Nation States – Impact due to the Emergence of Nation States.; Age of Revolutions: The Glorious Revolution (1688) – Origin of Parliament – Constitutional Settlement – Bill of Rights – Results

Unit – IV

Age of Revolutions: The American Revolution (1776) – Opening of New World – Causes – Course – Declaration of Independence, 1776 – Bill of Rights, 1791 – Significance.

Unit – V

Age of Revolutions: The French Revolution (1789) – Causes - Teachings of Philosophers - Course of the Revolution – Results

References:

1 Burke, Peter, the Renaissance
2 C.J.H. Hayes, Modern Europe up to 1870
3 C.D. Hazen, Modern Europe up to 1945
4 Christopher Hill, From Reformation to Industrial Revolution
5 Elton, G.R., Reformation Europe, 1517-1559
6 Ferguson, the Renaissance
7 Gilmore, M.P., the World of Humanism, 1453-1517
8 Hilton, Rodney, Transition from Feudalism to Capitalism
9 J.H.Parry, the Age of Renaissance10 J.N.L. Baker, History of Geographical Discoveries and Explorations11 the New Cambridge Economic History of Europe, Vol. I, VII.

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(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

III BA.Semester – V (CBCS) Paper – V

Subject; History

Title of the Paper – Age of Rationalism and Humanism –The World Between 15th& 18th Centuries.

Paper Code ; HIS-501C (w .e. f 2020 - 2021) Pass Marks: 28

Time : 3Hrs Max. Marks : 70

Model Question Paper

SECTION – A

Answer any TWO of the following 2x5=10

1. Geographical Discoveries

2.Counter Reformation

3.Boaston Tea Party

4.Reign of Terror

SECTION – B

Answer any FOURE of the following 4x15=60

5. Analyse the features Feudalism

6. Explain the important features of Renaissance

7. What is Reformation Movement and its significance

8. Describe the causes for the emergence of Nation States

9. Give a brief account of Glorious Revolution

10.Discuss about the causes of American Revolution

11.Write an essay on causes for the French Revolution

12. Estimate the rule of Directory in France.

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VUYYURU, A.P. – 521165
(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

SUBJECT- History	HIS 501C	III B.A

TITLE: Age of Rationalism and Humanism –The World Between 15th& 18th Centuries.

Semester – V

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	1	-	1	1
B 15 Marks Questions	1	2	2	1	2
Weightage	20	35	30	20	35

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P-521165

(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

III BA. Semester – V (CBCS) Paper – VI

Subject:: History : Syllabus - Title of the Paper – History & Culture of Andhra Desa (from 12th to 19th Century A.D)

Paper Code : HIS-502C (w .e. f 2020 - 2021)

No.of Hours per week:5 No.of Credits:4

Unit – 1

Andhra during 12th& 13th Centuries A.D.: Kakatiyas – Origin & its Antecedents – Administration – Social & Economic Life – Industries & Trade - Promotion of Literature and Culture – Architecture & Sculpture – Decline; The Age of Reddy Kingdoms: Patronage to Literature – Trade & Commerce.

Unit – II

Andhra between 14th & 16th Centuries A.D.: Vijayanagara Empire: Polity, Administration, Society & Economy – Sri Krishna Devaraya and his contribution to Andhra Culture – Development of Literature & Architecture – Decline and Downfall.

Unit - III

Andhra through 16th& 17th Centuries A.D.: Evolution of Composite Culture – The QutbShahis of Golkonda – Origin & Decline – Administration, Society & Economy – Literature & Architecture.

Unit – IV

The 18th& 19th Centuries in Andhra: East India Company's Authority over Andhra – Three Carnatic Wars – Occupation of Northern Circars and Ceeded Districts –Early Uprisings – Peasants and Tribal Revolts.

Unit – V

The 18th& 19th Centuries in Andhra: Impact of Company Rule on Andhra – Administration – Land Revenue Settlements – Society – Education - Religion – Impact of Industrial Revolution on Economy – Peasantry & Famines – Contribution of Sir Thomas Munroe, C. P. Brown & Sir Arthur Cotton – Impact of 1857 Revolt in Andhra.

References:

1 BalenduSekharam, TheAndhras Through the Ages

2 K. Sathyanarayana, A Study of the History and Culture of Andhras

3 Mallampalli Soma SekharaSarma, History of the ReddiKindogms

4 K.A.N.Sastry, A History of South India

5 H.K.Sherwani, History of the KutubShahi Dynasty

6 P.R.Rao, History of Modern Andhra

7 KhandavalliLakxmiranjanam&BalenduSekharam

8 SuravaramPratap Reddy

9 B.S.L.HanumantaRao

10 I.K.Sarma, *Early Historic Andhra Pradesh,500 B.C.-624 A.D.*, New Delhi, 2008

11 B. Rajendra Prasad, *Early Medieval Andhra Pradesh, A.D.624 -1000 A.D.*, New Delhi, 2009

12 C. SomasundaraRao, *Medieval Andhra Pradesh, A.D. 1000 -1324 A.D.*, New Delhi, 2011

13 R. Soma Reddy, *Late Medieval Andhra Pradesh, A.D. 1324-1724 A.D.*, New Delhi, 2014

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(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

III BA. Semester – V (CBCS) Paper – VI

Subject:: History

Title of the Paper – History & Culture of Andhra Desa (from 12th to 19th Century A.D)

Paper Code; HIS-502C **(w .e. f 2020 - 2021)** **Pass Marks: 28**

Time : 3Hrs **Max. Marks: 70**

Model Question Paper

SECTION – A

Answer any TWO of the following 2x5=10

1. Rudrama Devi
2. Battle of Tallikota
3. Abdul HasanTanisha
4. Sir Arthur Cotton

SECTION – B

Answer any FOUR of the following 4x15=60

5. Write an essay on Socio-Economic and Cultural conditions of Kakatiyas
6. Discuss the glory of Vijayanagara Empire
7. Briefly explain the Administrative system of Qutub Shahis
8. Write about the general conditions of Andhra in 17th Century
9. Give a brief account of Carnatic Wars in Deccan
10. Explain about the Acquisition of Northern Circars by British
11. Describe the greatness of Thomas Munroe
12. Estemate the impact of 1857 Revolt in Andhra.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
VUYYURU, A.P. – 521165
(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

SUBJECT- History	HIS 502C	III B.A

TITLE: History & Culture of Andhra Desa (from 12th to 19th Century A.D)

Semester – V

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	1	1	-	1
B 15 Marks Questions	1	1	2	2	2
Weightage	20	20	35	30	35

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF HISTORY

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

12-04-2021

Minutes of the meeting of the Board of Studies in History of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.00 A.M ON 12.04.2021 In the Department of History.(Through online mode due to Covid -19)

Dr. D. RAJYA LAKSHMI, HOD, History has Presided over the BOS meeting

Members Present:

1)	..... (Dr. D. Rajyalakshmi)	Chairman	Head, Department of History AG & SG S Degree College of Arts & Science Vuyyuru-521165
2)	..... (Dr. G. Beaulah Pearl Sunanda)	University Nominee	Head, Department of History & Tourism Maris Stella College, Vijayawada.
3)	..... (Prof. S. Murali Mohan)	Academic Council Nominee	Head, Department of History& Archeology, Acharya Nagarjuna University, Guntur.
4)	..... (Sri. V. Swamulu)	Academic Council Nominee	Head, Department of History Sir C. R. Reddy College Eluru, W.G.Dist.
5)	..... (Sri K.Kiran)	Alumni Nominee	Lecturer in AG&SG Siddhartha Jr. College, Vuyyuru

AGENDA

1. To recommend any changes to the syllabi in 2nd, 4th, 6th Semesters of 1st, 2nd 3rdYear B.A. History Papers for Academic Year 2020-2021.
2. To recommend the Blue Print and Model Question Papers of2nd4thand 6th Semesters of Degree B.A papers for the Academic Year 2020-2021.
3. To recommend the guidelines to be followed by the Question Paper Setters in History for the 2nd 4thand 6th Semester-end exams.
4. To recommend the teaching and evaluation methods to be followed under Autonomous Status.
5. To suggest innovative methods of teaching.
6. Any other matter.

RESOLUTIONS

1. Discussed and recommend the syllabi according to APSCHE for 2nd Semester, adding VI Unit related to competitive & Research History, without changes for the 4th , 6th Semesters of 1st 2nd&3rd Year B.A. as it is of 2019-20 Academic Year syllabi for 2020-2021. Further any modifications given by APSHE will be followed .

2.Discussed and recommended the syllabi of 2nd semester to add 6th Unit for I B.A for the Academic Year 2020-2021.

a) Semester- II (HIS 201C): Paper-II. Medieval Indian History &Culture (From 1206 to 1764 AD.)

b) Semester-IV (HIS 401C):Paper-IV. Social Reform Movement & Freedom Struggle (From1820-1947 AD.)

c) Semester-VI (HIS 601GE,HIS 602CE,HIS 603CE, HIS 604CE) Paper- HIS 601C– History of Modern Europe(From 19th Century to 1945AD),Cluster Electives –HIS-602CE ,Cultural Tourism in Andhra Pradesh. HIS 603CE-Popular Movements in Andhra Desa(1848 to 1956AD).HIS 604CE-Contemporary History of Andhra Pradesh(1956 to 2014 AD)

3. Discussed and recommended the model question papers of 2nd 4thand 6thsemesters of B.A Degree.

4. Discussed and recommended the guidelines to be followed by the question paper setters of History for2nd 4th and 6th semesters B.A Degree.

5. Discussed and recommended the following teaching and evaluation methods:

A) **Teaching methods:** Besides the conventional methods of teaching, it is also resolved to use various other methods like group discussions, quiz, develop lessons for power point presentations etc., for the better understanding of contents.

B) **Evaluation of a student is done by the following procedure :**

a) **Internal Assessment Examinations:**

1. Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment 2nd 4th and 6th Semesters of 1st 2nd and 3rd BA .
2. Out of these 30 marks, 20 marks are allocated for internal tests and 5 marks for Assignments. The two tests will be conducted and average of these two tests shall be deemed as the marks obtained by a student, and remaining 5 marks are allocated for attendance under CBCS pattern.

b) **Semester – End Examinations:**

1. The maximum marks for Semester-End examinations shall be 70 for IBA, IIBA and IIIBA, and duration of the examination shall be 3 Hours.
2. Semester-End examinations shall be conducted at the end of every semester.

6. Discussed and recommended for organizing Seminars, Guest lectures, and Workshops to upgrade the knowledge of students and to impart new skills of learning as frequently as possible.

D Rajulu

Chairman

12/4/2021

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P – 521165
(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: I B.A HISTORY, SEMESTER – II(CBCS) PAPER-II
SYLLABUS: Title of the Paper: MEDIEVAL INDIAN HISTORY & CULTURE
(From 1206 to 1764 A.D)
Paper Code: HIS 201C (W.e.f. 2020-21) **Pass Marks 28**
No. of Hours per week:5 No. of Credits:4 **Max Marks 70**

UNIT –I 20Hrs

Impact of Turkish Invasions –Balban, Allauddin Khilji, Mohammad –bin-Tughlaq, Administration, Society, Economy, Religion, and Cultural developments under Delhi Sultanate (from 1206to 1526AD)

UNIT – II 15 Hrs

Impact of Islam on Indian Society and Culture –Bhakti Movement , Administration, Society Economy, Religion and Cultural developments under Vijayanagara Rulers.

UNIT – III 25Hrs

Emergence of Mughal Empire –Babur –Sur Interregnum –Expansion & Consolidation of Mughal Empire – Akbar, Jahangir, Shah Jahan, Aurangazeb.

UNIT –IV 15Hrs

Administration, Economy, society and Cultural Developments under the Mughals ; Dis integration of the Mughal Empire – Rise of Marathas under Shivaji. .

UNIT –V 15Hrs

India under Colonial Hegemoney; Beginning of European Settlements – Anglo –French Struggle –Conquest of Bengal by East India Company.

UNIT -VI

Competitive and Research History .

Reference Books

1. Chandra, S History of Medieval India(800 -1700).

2.Chattopadyay, B.D The Making of Early Medieval India.

3. Habib, Irfan, Medieval India; The Study of a Civilization.

4.Habibullah,A.B..M, The Foundation of Muslim Rule in India.

5. Mohammad Habib and K.A.Nizami(eds) comprehensive History of India, Vol-V, The Delhi Sultanate

6.Kumar Sunil, The Emergence of the Sultanate of Delhi.

7.K.A.Nilakanta Sastry, A History of South India from Pre historic Times to the Fall of Vijayanagara.

8.Shireen Moosvi. The Economy of the Mughal Empire.

9.Stein. B. Peasant, State& Society in Medieval South India.

10.Yazdani,G.(ed) The Early History of the Deccan.

11.R.C.Majumdar,The Age of Imperial Kanauj

12.R.Soma Reddy, Late Medieval Andhra Pradesh,AD.1324-1724.,New Delhi,2014.

13. Harbans Mukhia, The Mughals of India.

Mandatory Co-Curricular Activity:

Map pointing should be a compulsory activity as it helps student to understand vividly and clearly than text and **should be made part of Examination by allotting marks for this skill –based activity.**

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P – 521165
(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: I B.A SEMESTER – II (CBCS) PAPER-II
SYLLABUS: HISTORY Title of the Paper: MEDIEVAL INDIAN HISTORY AND CULTURE (From 1206 to 1764 A.D)
Paper Code: HIS 201C (W.e.f. 2020-21) Pass Marks 28 Max Marks 70

Model Question Paper

SECTION - A

ANSWER ANY TWO OF THE FOLLOWING

(Map pointing is Compulsory attempted Question) 5X2=10

1. Market Reforms of AllauddinKhilgi

2.Sri Krishna Devarayalu

3 .Mark the following places in India map

a. Delhi b. Kanuj c. Surat d. Ujjain e. Multan

(OR)

4.Mark the Shivaji's Empire and following places in India map

a. Kalyan b. Satara c. Poona d. Gingi

SECTION -B

ANSWER ANY FOUR OF THE FOLLOWING 4X15=60

5.Asses the greatness of Balban

6. Critically examine the Administrative reforms of Mahammad Bin –Tughlaq.

7. Briefly describe about the Bhakti Movement.

8 . Write about the Glory of the Vijayanagara Empire.

9.Describe the achievements of Babur.

10.Discuss about the Administration of Mughals .

11.How did Shivaji established an Independent Maratha Empire..

12.Write an essay on Robert Clive establishment of British power in India .

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
VUYYURU, A.P. – 521165
(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

SUBJECT- History	HIS 201C	I B.A

TITLE: MEDIEVAL INDIAN HISTORY AND CULTURE
(From 1206 to 1764 A.D)

Semester – II

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	1	1	1	-
B 15 Marks Questions	2	2	1	2	1
Weightage	35	35	20	35	15

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P-521165
(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: II B.A SEMESTER – IV (CBCS) PAPER-IV
SYLLABUS: HISTORY Title of the Paper: Social Reform Movement & Freedom Struggle (From 1820-1947A.D)
Paper Code: HIS 401C (W. e. f. 2020-21) Pass Marks 28
No. of Hours per week:5 No. of Credits:4 Max Marks 70

Unit – I

Socio –Religious & Self Respect Movements – Brahma Samaj – Arya Samaj – Theosophical Society –Ramakrishna Mission – Aligarh Movement – Emancipation of Women Struggle against Caste – Jyotiba Phule – Narayana Guru – Periyar and Dr. B. R. Ambedkar. (20hours)

Unit – II

Growth of Nationalism in the 2nd half of 19th Century-Impact of British Colonial policies under Viceroys Rule and the Genesis of Freedom Movement –Birth of Indian National Congress (15hours)

Unit - III

-Freedom Struggle (1885-1920) Moderate Phase Partition of Bengal-Emergence of Militant Nationalism-Swadeshi & Boycott Movement –Home Rule Movement...(25hours)

Unit - VI

Freedom Struggle (1920-1947) Gandhi role in Indian National Movement – Revolutionary Movements–Subhas Chandra Bose. **Additional topics** - Durgabai Deshmukh & Sarojini Naidu .

-(15hours)

Unit – V

Muslim League &Growth of Communalism – Partition of India – Integration of Princely States into Indian Union – Sardar Vallabhai Patel. (15hours)

References:

Bipan Chandra, Indias struggle for Independence 1857-1947
Bipan Chandra, Modern India, NCERT, 1983 (Separate)
Hermann Kulke and DietmarRothermund, A History of India Rupa& Co 199*1.
AlladiVaidehi, Freedom Movement in India (1858-1947)
SuruchiThapon, Women in the Indian National Movement unseen faces and Unhand Voices, 1930-1942, Delhi, 2006
Raj Kumar, Ramesh VariDesi&RomulaPrulhi, Women's Role in Indian National Movement , Delhi 2003.
Tudeth Brown, Gandhi's Rise of Power 1915-1922.
Bipan Chandra, Nationalism and Colonialism in Modern India, 1977.
Anil Seal, Emergence of Indian Nationalism

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(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: II B.A | SEMESTER – IV (CBCS) | PAPER-IV
SYLLABUS: HISTORY | Title of the Paper: : Social Reform Movement & Freedom Struggle (From 1820-1947 A.D) | Pass Marks 28
Paper Code: HIS 401C | (W.e.f. 2020-2021) | Max Marks 70

Model Question Paper

SECTION - A

ANSWER ANY TWO OF THE FOLLOWING 2X5=10

1.JyothibaPhule

2.Indian National Congress

3 .BalagangadharaTilakh

4 .Simon Commission

SECTION -B

ANSWER ANY FOUR OF THEFOLLOWING 4X15=60 ,

5.Explain the socio-religious movements in the 19th and 20th C. in India.

6.Asses the contribution of sir syed Ahmad Khan to Aligarh movement.

7. Discuss the factors that helped to the rise of Indian National Movement.

8.Describe the role of Moderates in Indian National movement.

9.What is the significance of Non –Co operation Movement .

10.Give a brief account of the contribution of Revolutionists to Indian Freedom Struggle.

11.Trace the events that led to the partition of India .

12.Estimate the role of Vallabhai Patel in the integration of Native states into Indian Union .

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
VUYYURU, A.P. – 521165
(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

SUBJECT- History	HIS 401C	II B.A

TITLE: Social Reform Movement and Freedom Struggle
(From 1820 -1947A.D)

Semester – IV

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	1	1	1	-
B 15 Marks Questions	2	1	1	2	2
Weightage	35	20	20	35	30

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU, A.P- 521165

(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

III BA **Semester – VI (CBCS)** **Paper – VII (General Elective)**

Subject; History, Syllabus, Title of the Paper – History of Modern Europe (from 19th Century to 1945 A.D)

Paper Code ; HIS-601GE **(w .e. f 2020 - 21)**

No. of Hours for week:5 **No. of Credits:4**

Unit – 1

Industrial Revolution: Origin, Nature and Impact. (10 Hrs)

Unit – II

Unification Movements in Italy & Germany and their Impact. (25 Hrs)

Unit – III

Communist Revolution in Russia – Causes, Course and Results – Impact on World Order.(15 Hrs)

Unit - IV

World War I: Age of Rivalry in Europe between 1870 and 1914 – Results of the War – Paris Peace Conference - League of Nations.(20 Hrs)

Unit – V

World War II: Causes, Fascism & Nazism – Results: the United Nations Organization: Structure, Functions and Challenges.(20 Hrs)

References:

1 J.A.Hobson, Imperialism: A Study
2 C.D. Hazen, Modern Europe up to 1945
3 H.A.L.Fisher, History of Europe
4 C.M.M.Ketelbey, A History of Modern Times
5 Grant and Temperley (ed), Europe in the 18th and 20th Centuries
6 David Thomson, Europe Since Napoleon
7 A.P.J.Taylor, The Struggle for Mastery in Europe
8 S.P.Nanda, History of Modern World
9 S.N.Dhar, International Relations and World Politics Since 1919

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(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

III BA. Semester – VI (CBCS) Paper – VII (General Elective)
Subject; History:
Title of the Paper – History of Modern Europe (from 19th Century to 1945 A.D)

Paper Code ;HIS-601GE **(w .e. f 2020-21)** **Pass Marks: 28**

Time : 3Hrs **Max. Marks : 70**

Model Question Paper

SECTION – A

Answer any TWO of the following 2x5=10

1. Karl Marx
2. Blood & Iron Policy
3. Lenin
4. Wilson 14 points

SECTION – B

Answer any FOURE of the following 4x15=60

5. Write an essay on Industrial Revolution and its effects
6. Describe the main stages of unification of Italy
7. Briefly explain the different stages of unification of Germany
8. Analyse the causes for 1917 Russian Revolution
9. Give a brief account of the course of First World War
10. Discuss about the causes for the failure of League of Nations
11. Estemate the rise and fall of Fascism in Italy
12. Explain about the role played by America in Second World War.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
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(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

SUBJECT- History	HIS 601GE	III B.A

TITLE:History of Modern Europe (from 19th Century to 1945 A.D)

Semester – VI

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	1	1	1	-
B 15 Marks Questions	1	2	1	2	2
Weightage	20	35	20	35	30

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF ECONOMICS

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

15-07-2020

ODD

ACADEMIC YEAR 2020 - 2021

Minutes of the meeting of the Board of Studies in Economics of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 15-07-2020 in the online mode.

Sri. G.S.S. SINGH. HOD, Economics has presided over the BOS meeting

Members Present:

1) G.S.S.S.N. (Sri.G.S.S. SINGH)	**Chairman**	Head, Department of Economics AG & SG S Degree College of Arts & Science Vuyyuru-521165
2) N. Ramarao (Sri. N. Rama Rao	**member**	Lecturer, Department of Economics AG & SG S Degree College of Arts & Science Vuyyuru-521165
3) K. Madhu Babu (Prof.K.Madhu Babu)	**University Nominee**	Head, Department of Economics Acharya Nagarjuna University, Guntur.
4) D. GANGAIAH (Sri.D.Gangaiah)	**Academic Council Nominee**	Head ,Department of Economics V.S.R & N.V.R College, Tenali.
5) ..... (Dr. M.BABU RAO)	**Academic Council Nominee**	Department of Economics, C.R. Degree Chilakaluripet, Guntur District,.

AGENDA

1. To review and recommend any changes in the syllabi, model Question papers and guidelines in the 1st Semester of B.A and B.Com, 3rd&5th semesters of B.A Classes.;
2. To discuss and recommend the pattern of Internal Assessment to be followed from the Academic year 2020 – 21. .
3. To recommend the guidelines to be followed by the Question Paper Setters in Economics for the 1st ,3rd and 5th semester-end exams;
4. To recommend the teaching and the evaluation methods to be followed under the Autonomous System.
5. To propose the panel of Question paper setters and Examiners ..
6. Any other Matter.

RESOLUTIONS :

1). it is Resolved to continue the same syllabi under CBC System approved by the Academic Council of 2020 – 2021 for 1st Degree B.A & B.COM Economics papers, 3rd and 5th Semesters of B.A Classes.

2) out of maximum 100 marks in each paper 30 marks shall be allocated for Internal assessments regarding 1st, III and V Semesters.

A) To implement 30 marks for Internal assessment and 70 marks for External Assesment from the Academic yea2019 – 20 and that is also implemented to the V Semester from 2020 -21 Academic year.

B) out of these 30 marks , 20marks are allocated for internal tests ,5 marks are allocated for assignment for I, III and V Semesters. The two tests will be conducted and average of these two tests shall be deemed as the marks obtained by a student, and remaining 5 marks are allotted for attendance.

3). Discussed and recommended the syllabi, Model question papers under CBC system and Guidelines to be followed by the question paper setters of 1st semester of 1 B.A & I B.COM Economics papers and 3rd&5th semesters of B.A Classes for the Academic year 2020 – 2021.

4) To follow the teaching and evaluation methods, it is also resolved to use various other methods like Group discussions, Quiz, Organizing Seminar's, Guest Lectures and Workshops to upgrade the knowledge of the students and impart new skills of Learning as frequently as possible.

5). resolved to authorize the chairman of Board of Studies to suggest the panel of paper setters and Examiners to the controller of Examinations as for the requirement.

6) The new syllabus was introduced in the I – SEMESTER Regarding the Micro Economics Analysis ,according to the APSCHE instructions. It is Resolved to follow further changes if any in the syllabus by the competent Authority.

Chairman

ACADEMIC YEAR 2020 - 2021

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCES (AUTONOMOUS),
(2020-2021) VUYYURU

BA Economics Syllabus under CBCS

w.e.f. 2020-21 (Revised syllabus)

I Year B. A. Programme (UG) Courses – Under CBCS

SEMESTER – I : COURSE - I MICROECONOMIC ANALYSIS

Hours per Week :- 5

NO. OF CREDITS: 4

Module–1: Economic Analysis and Methodology Scarcity and Choice as fundamental problems of economics - Opportunity Cost - Production Possibilities Curve - Micro and Macro Analysis - Micro economic analysis – Scope and Importance -Principles of Microeconomics: Allocation of Resources - Optimization, Equilibrium and Marginal analysis - Rational Principle the concept of Welfare M

Module -2: Theory of Consumption Concept of Demand -Factors determining demand - Law of Demand - reasons and exceptions - Elasticity of Demand -Cardinal and Ordinal utility - Indifference Curve analysis : Properties of Indifference curves, Indifference Curve Map - Marginal Rate of Substitution - Budget Line - Changes -Consumer Equilibrium under Indifference Curve Analysis – Consumers' Surplus and Indifference Curve Analysis

Module -3: Theory of Production Concept and Objectives of Firm - Production Function : Cobb-Douglas Production Function -Law of Variable Proportions -Laws of Returns to Scale - Economies of large scale - Concepts of Cost - Total, Average and Marginal Costs - Law of Supply - Concept of Revenue : Total, Average and Marginal Revenues - Relation between Average and Marginal Revenues and elasticity of Supply

Module-4: Theory of Exchange Concepts of Market : Criteria for Classification of Markets - Perfect Competition– Conditions, Price and Output determination ; Monopoly : Conditions, Price and Output Determination - Price Discrimination; Monopolistic Competition - Assumptions - Price and output determination - Selling Costs ; Oligopoly -Types- Kinky demand curve and Price rigidity

Module - 5: Theory of Distribution The concepts of Functional and Personal Distribution of Income - Marginal Productivity Theory of Distribution - Modern Theory of Distribution - Concept of Rent - Ricardian Theory of Rent – Marshall's concept of Economic Rent and Quasi Rent; Theories of Wage Determination: Subsistence Theory and Standard of Living Theory - Modern Theory of Wages; Classical Theory of Interest -Loanable Funds Theory of Interest - Liquidity Preference Theory of Interest; Theories of Profit: Risk and Uncertainty, Dynamic and Innovations Theories.

Reference Books: 1. A. Koutsoyiannis, Modern Microeconomics – Macmillan, London.
2 A. W. Stonierand D.C. Hague, A Text book of Economic Theory - ELBS & Long man Group, London.
3. H. L. Ahuja, Advanced Economic Theory, S. Chand, 2004.
4. P. N. Chopra, Principles of Economics, Kalyani Publishers, Ludhiana, 2018.
5. H.S. Agarwal: Principles of pEconomics.
6. P.A Samuelson & W.D. Nordhaus - Macroeconomics, Tata McGraw Hill, 18/e, 2005
7. M. L. Seth, Microeconomics, Lakshmi Narayan Agarwal, 2006.
8. D.M. Mithani&G.K. Murthy, Fundamentals of Business Economics, Himalaya Publishing, 2007.
9. Telugu Academi Publications on Microeconomics.
10. Microeconomics, Spectrum Publishing House, Hyderabad, 2017.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 -2021) VUYYURU

SEMESTER – I	COURSE CODE:ECO-101C
PAPER TITLE : MICRO ECONOMIC ANALYSIS	

Duration : 3Hours Maximum marks : 70 Pass marks : 28

SECTION - A

Answer any TWO of the following questions (2x5=10 Marks)

1.Cardinal Utility.

2. Returns to Scale.

3. Features of Perfect Competition.

4. Quasi Rent.

SECTION – B

Answer any FOUR of the following questions (4X15=60 Marks)

5. Explain the scope and importance of Micro Economics.

6. Explainthe features of indifference curves.

7. Explain the Law of Demand and its exceptions.

8. Explain the Law of Variable Proportions.

9. Explain the price determination under perfect competition

10 Explain the price determination under Monopoly.

11. Critically Examine the Recordian theory of Rent.

12.. Explain the Keynes Liquidity preference theory of Interest.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 -2021) VUYYURU

The Guidelines to be followed by the question paper setters in MICRO ECONOMIC **ANALYSIS**for the 1 Semester – End Examinations of I B.A (2020-2021)

PAPER TITLE ;-**MICRO ECONOMIC ANALYSIS**

Paper- 1Semester – 1Maximum marks : 70Dura ion : 3Hours

Paper code:-Eco – 101C

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (15Marks)	--	1
Unit-2 (35Marks)	1	2
Unit-3 (20Marks)	1	1
Unit-4 (35Marks)	1	2
Unit-5 (35Marks)	1	2
TOTAL 140	20	120

1.Each question carries 5 marks in Section-A

2.Each Essay question carries 15 marks in Section –B

3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us .

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
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B. A. ECONOMICS

II Year B. A. Programme (UG) Courses – Under

CBCS Semester – III Credits :- 5

Paper – III (Core Paper) (5Hours)

Macro Economics - National Income, Employment and Money

Module - 1

Meaning, definition of Macro Economics - Importance of Macro Economics- Difference between Micro and Macro Economics - Paradox of Macro Economics -Limitations

Module - 2

National Income - Definitions, Concepts of National Income - Measurement of National Income- Circular flow of Income in Two, Three and Four Sector Economy.

Module - 3

Classical theory of Employment - Say's Law of Markets.

Module - 4

Keynesian Theory of Employment - Consumption function – Investment Function - Marginal Efficiency of Capital (MEC)- Concepts of multiplier and accelerator

Module - 5

Meaning and Functions of Money - Classification of money - Gresham's Law - RBI classification of Money. Theories of Money - Fisher's Quantity theory of Money Cambridge approach (Marshall, Pigou, Robertson& Keynes).

REFERENCES:

1. G.Ackley - "Macro Economics Theory and Policy". Collier Macmillan, 1978.
2. E.Shapiro - "Macro Economic Analysis", Galgotia Publications, 1999.
3. Central Statistical Organisations - "National Accounts Statistics".
4. R.Dornbush, s.Fisher and R.Startz - "Macro Economics", Tata Mc.Graw Hill, 9/e, 2004.
5. M.L.Seth-"Macro Economics", Lakshmi NarayanaAgarwal, 2015.
6. K.P.M. Sundaram - "Money, banking & International Trade", Sultan Chand, 2010.
7. Dillard, D - "The Economics of John Maynard Keynes", Crossby Lockwood & Sons.
8. M.N.Mishra&S.B.Mishra - "Insurance Principles & Practice" S.Chand 2012.
9. BharatiV.Pathak "The Indian Financial System Markets, Institutions & Services". Pearson 2008.
10. Telugu Academy Publication

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 - 2021) VUYYURU

SEMESTER – III	COURSE CODE:ECO-301C
PAPER TITLE : Macro Economics - National Income, Employment and Money	

Duration : 3Hours Maximum marks : 70 Pass marks : 28

SECTION - A

Answer any TWO of the following questions (2x5=10 Marks)

1.Macro Economics.

2. National Income

3.J.B.Say Law of Market.

4.Aggregate Demand

SECTION – B

Answer any FOUR of the following questions (4X15=60 Marks)

5. Define Macro Economics and Explain its scope.
6. Distinguish between Micro Economics and Macro Economics
7. What is National Income? What are various concepts of National Income.
8. Explain the Methods of Estimating National Income.
9. Explain Say's Law of markets and It's importance in the theory of employment
10. State and explain consumption function . What are its Limitations and uses.
11. What is money? What are the functions of Money.
12. Critically Examine the Fisher's quantity theory of money.

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The Guidelines to be followed by the question paper setters in Macro Economics for the III Semester – End Examinations (2020 - 2021)

PAPER TITLE :**MACRO ECONOMICS** — National Income, Employment and Money

Paper- IIISemester – IIIMaximum marks : 70Duration : 3Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (35Marks)	1	2
Unit-2 (35Marks)	1	2
Unit-3 (20Marks)	1	1
Unit-4 (20Marks)	1	1
Unit-5 (30Marks)	--	2
TOTAL 140	20	120

1. Each question carries 5 marks in Section-A
2. Each Essay question carries 15 marks in Section –B
3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS), (2020 - 2021) VUYYURU

Final year BA Economics Syllabus Semester Paper – V

ECONOMIC DEVELOPMENT AND INDIAN ECONOMY – Semester –V

Weekly 5 Hours, Credits - 5

PAPER CODE : ECO-501C

Module - 1

Concept of Economic Growth - Distinction between economic growth and development - Measurement of economic development -Theories of Economic Growth:
Adam Smith, Rostow, Karl Marx and Harrod&Domar Models.

Module - 2

Sustainable development - Balanced and unbalanced growth-choice of techniques Labour intensive and capital intensive methods.

Module - 3

Basic features of the Indian Economy - Natural Resources - Important Demographic features- Concept of Population Dividend - Population Policy.

Module - 4

National Income in India - trends and composition-poverty, inequalities and Unemployment - Measures taken by the Government. - MGNREGS

Module - 5

Economic reforms - liberalization, privatization and globalisation - concept of inclusive growth.

REFERENCES:

1. Dhingra, I.C - "Indian Economy", Sultan Chand, 2014.
2. RuddarDutt and K.P.M. Sundaram - "Indian Economy", S.Chand& Co., 2015.
3. G.M.Meier -"Leading Issues in Economic Development", Oxford University Press, New York,.
4. M.P.Todaro - "Economic Development", Longman, London 6/e, 1996.
5. Reserve Bank of India - Hand book of Statistics on Indian Economy (Latest).
6. S.K.Misra&V,K,Puri - "Indian Economy", Himalaya Publishing House, 2015.
7. R.S.Rao, V.HanumanthaRao&N.VenuGopal (Ed) - Fifty Years of Andhra Pradesh (1956-2006), Centre for Documentation, Research and Communications, Hyderabad, 2007.
8. G.Omkarnath - Economics - A Primer for India - Orient Blackswan, 2012.
9. Benjamin Higgins - Economic Development
10. Telugu Academy Publications.
11. Dr. Ch.S.G.K. Murthy, Indian Economy - Gitam University

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SEMESTER – V	COURSE CODE:ECO-501C
PAPER TITLE : ECONOMIC DEVELOPMENT AND INDIAN ECONOMY	

Duration : 3Hours Maximum marks : 70 Pass marks : 28

SECTION - A

Answer any TWO of the following questions (2x5=10 Marks)

1. Labour intensive techniques
2. Population Dividend
3. Poverty.
4. Globalisation.

SECTION – B

Answer any FOUR of the following questions (4X15=60 Marks)

5. Critically Examine the Recordian theory of Growth.
6. Explain the concepts of Economic Growth and Economic Development and its differences
7. Critically Examine the Balanced Growth theory.
8. What are the Basic features of Indian Economy.
9. Explain the causes of population explosion in India.
10. Explain the composition and trends in India's National Income.
11. What is poverty? Mention the measures taken by the Governament.
12. Explain the Liberalisation policy in India.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 - 2021) VUYYURU

The Guidelines to be followed by the question paper setters in ECONOMIC DEVELOPMENT AND INDIAN ECONOMYfor the V Semester – End Examinations (2020 - 2021)

PAPER TITLE :ECONOMIC DEVELOPMENT AND INDIAN ECONOMY

Paper- VSemester – VMaximum marks : 70Duration : 3Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	------	2
Unit-2 (20Marks)	1	1
Unit-3 (35Marks)	1	2
Unit-4 (35Marks)	1	2
Unit-5 (20Marks)	1	1
TOTAL 140	20	120

1.Each question carries 5 marks in Section-A

2.Each Essay question carries 15 marks in Section –B

3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 - 2021) VUYYURU

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 - 2021) VUYYURU

Final year BA Economics Syllabus Paper – V

INDIAN AND ANDHRAPRADESH ECONOMY – Semester –V

Weekly 5 Hours, Credits - 5

PAPER CODE : ECO-502C

SEMESTER-5

Indian and Andhra Pradesh Economy

Syllabus

Module - 1

Indian Agriculture - Importance of Agriculture in India - Agrarian structure and relations- Factors determining Productivity- Agricultural Infrastructure - Rural credit - Micro Finance - Self Help Groups (SHGs) - Agricultural Price policy- concept of Crop Insurance - Food Security.

Module - 2

Structure and growth of Indian Industry - Industrial policies of 1956 & 1991 Meaning of Micro small and Medium Enterprises (MSMEs)- Problems and Prospects of small scale Industries in India.

Module - 3

Disinvestment in India - FEMA - Foreign direct investment - Services Sector in India – Reforms in Banking and Insurance -, IT, Education and Health.

Module - 4

Planning in India Economy - Objectives of Five year plans - Review of Five year Plans - Current Five year plan- NITI Aayog

Module - 5

Andhra Pradesh Economy - Population - GSDP - Sector Contribution and trends - IT – Small Scale Industry - SEZs.

REFERENCES:

1. Dhingra, I.C - "Indian Economy", Sultan Chand, 2014.
2. RuddarDutt and K.P.M. Sundaram - "Indian Economy", S.Chand& Co., 2015.
3. G.M.Meier - "Leading Issues in Economic Development", Oxford University Press, New York, 3/e.
4. M.P.Todaro - "Economic Development", Longman, London 6/e, 1996.
5. Reserve Bank of India - Hand book of Statistics on Indian Economy (Latest).
6. S.K.Misra&V,K,Puri - "Indian Economy", Himalaya Publishing House, 2015.
7. R.S.Rao, V.HanumanthaRao&N.VenuGopal (Ed) - Fifty Years of Andhra Pradesh (1956-2006), Centre for Documentation, Research and Communications,Hyderabad, 2007.
8. G.Omkarnath - Economics - A Primer for India - Orient Blackswan, 2012.
9. Telugu Academy Publications.
10. Dr.Ch.S.G.K.Murthy, Indian Economy - Gitam University.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 - 2021) VUYYURU

SEMESTER – V	COURSE CODE:ECO-502C
PAPER TITLE : Indian and Andhra Pradesh Economy	

Duration : 3Hours Maximum marks : 70 Pass marks : 28

SECTION - A

Answer any TWO of the following questions (2x5=10 Marks)

1. Industrial policy 1956.
2. FEMA
3. NeethiAyog .
4. SEZs (Special Economic Zones).

SECTION – B

Answer any FOUR of the following questions (4X15=60 Marks)

5. Explain the Importance of Agriculture sector in India.
6. What is Green Revolution ? Explain the causes and Benefits of Green Revolution.
7. State the 1991 Industrial Resolution policy.
8. Explain the problems and remedies of small and cottage Industries in India.
9. Review the Disinvestment in India.
10. Explain the Foreign Direct Investment in India .
11. Review theperformance of Five year plan's in India.
12. Explain the changes in the shares of various sectors in Gross Domestic Product in Andhrapradesh State.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020 - 2021) VUYYURU

The Guidelines to be followed by the question paper setters in **Indian and Andhra Pradesh Economy** for the V Semester – End Examinations (2020 - 2021)

PAPER TITLE :**Indian and Andhra Pradesh Economy**

Paper- VSemester – VMaximum marks : 70Duration : 3Hours

Weightage for the question paper

syllabus.	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	------	2
Unit-2 (35Marks)	1	2
Unit-3 (35Marks)	1	2
Unit-4 (20Marks)	1	1
Unit-5 (20Marks)	1	1
TOTAL 140	20	120

1.Each question carries 5 marks in Section-A

2.Each Essay question carries 15 marks in Section –B

3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF ECONOMICS

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

04-06-2021

EVEN 1

ACADEMIC YEAR 2020 - 2021

Minutes of the meeting of the Board of Studies in Economics of AG & SG Siddhartha Degree College of Arts &Science(Autonomous) Vuyyuru, held at 10.00 A.M on 04-06-2021 in the online mode.

Sri. N.RAMA RAO, HOD, Economics has presided over the BOS meeting

Members Present:

1)	(Sri. N. Rama Rao)	Chairman	Head, Department of Economics A G & SG S Degree College of Arts & Science Vuyyuru-521165
2)	(Prof.K.MadhuBabu)	University Nominee	Head, Department of Economics AcharyaNagarjuna University, Guntur.
3)	(Sri.D.Gangaiah)	Academic Council Nominee	Head ,Department of Economics V.S.R & N.V.R College, Tenali.
4)	(Dr. M.BABU RAO)	Academic Council Nominee	Department of Economics, C.R. Degree Chilakaluripet, Guntur District,.

AGENDA

1. To review and recommend any changes in the syllabi, model Question papers and guidelines in the 2nd ,4th and 6th semesters of I, II and III B.A Classes.
2. To discuss and recommend the pattern of Internal Assessment to be followed from the Academic year 2020 – 2021.
3. To recommend the guidelines to be followed by the Question Paper Setters in Economics for the 2nd ,4th and 6th semester-end exams;
4. To recommend the teaching and the evaluation methods to be followed under the Autonomous System.
5. To propose the panel of Question paper setters and Examiners ..
6. Any other Matter.

RESOLUTIONS :

1). it is Resolved to continue the same syllabi under CBC System approved by the Academic Council of 2020 – 2021 for II and III B.A Economics papers in the 4th and 6th Semesters of B.A Classes.

* APSCHE was introduced New syllabus regarding the Eonomics in the II Semester for I B.A Class from the Academic year 2020 -21. It is Resolved to fallow the APSCHE syllabus in the II semester for I BA class from the Academic year 2020 – 2021.

2) out of maximum 100 marks in each paper 30 marks shall be allocated for Internal assessments regarding 2nd ,4th and 6th Semesters.

A)To implement 30 marks for Internal assessment and 70 marks for External Assesment from the Academic yea2019 – 2020 and that is also implemented to the V Semester from 2020 -21 Academic year, The same is implemented to the VI Semester from the Academic year 2020 – 2021.

B) out of these 30 marks , 20marks are allocated for internal tests ,5 marks are allocated for assignment for II, IV and VI Semesters. The two tests will be conducted and average of these two tests shall be deemed as the marks obtained by a student, and remaining 5 marks are allotted for attendance.

3). Discussed and recommended the syllabi, Model question papers under CBC system and Guidelines to be followed by the question paper setters of 2nd ,4th and 6th semester of I,II & III B.A Economics papers for the Academic year 2020 – 2021.

4) To follow the teaching and evaluation methods, it is also resolved to use various other methods like Group discussions, Quiz, Organizing Seminar's, Guest Lectures and Workshops to upgrade the knowledge of the students and impart new skills of Learning as frequently as possible.

5). Resolved to authorize the chairman of Board of Studies to suggest the panel of paper setters and Examiners to the controller of Examinations as for the requirement.

6) The new syllabus was introduced in the II – SEMESTER regarding the Economics for I BA Class according to the APSCHE instructions. It is Resolved to follow, further changes if any in the syllabus by the competent Authority.

M. Ramulu

Chairman

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(AUTONOMOUS), VUYYURU(2020 -2021)

MACRO ECONOMIC ANALYSIS

SEMESTER – II	COURSE CODE:ECO-201
PAPER TITLE : MACRO ECONOMIC ANALYSIS	

At the end of the course, the student is expected to demonstrate the following cognitive abilities and psychomotor skills.

1. Remembers and states in a systematic way (knowledge) Various concepts, definitions,laws and principles of macroeconomic theory with referenceto income, employment, money, banking and finance

2. Explains (understanding) a.the difference between various concepts and components of national income with illustrationsand methods of measuring national income b. various terms, concepts, laws and principles, theories relating to income, employment, consumption, investment, money, price-level and phases of trade cycles d. functions of commercial banks and central bank, creation and control of credit

3. Critically examines using data and figures (analysis and evaluation) a. in order to understand the interrelationship between various components of national income b. the theories of macroeconomics with reference to their assumptions, implications and applicability c. Empirical evidences of Consumption and Investment Functions and factors influencing them

4. Draws critical formulae, diagrams and graphs. a. consumption and investment functions; concepts of multiplier and accelerator b. price indices, inflation and trade cycles

5

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(AUTONOMOUS), VUYYURU(2020 -2021)

MACRO ECONOMIC ANALYSIS

SEMESTER – II	COURSE CODE:ECO-201
PAPER TITLE : MACRO ECONOMIC ANALYSIS	

Module - 1: National Income-Macroeconomics - Definition, Scope and Importance - Difference between Micro economic and Macro economic Analyses – Circular Flow of Income -National Income: Definitions, Concepts, Measurement of National Income - Difficulties - Importance - Concept of Green Accounting

Module -2: Theory of Employment-Classical Theory of Employment - Say's Law of Markets - Criticism -Keynesian Theory of Employment - Consumption Function - Keynes' Psychological Law of Consumption - Average and Marginal Propensity to Consume - Factors determining Consumption Function –Brief Review of Relative, Life Cycle and Permanent Income Hypotheses - Investment Function: Marginal Efficiency of Capital -Multiplier and Accelerator - Keynesian Theory of Employment - Applicability to Developing countries

Module – 3: Money and Banking-Definitions of Money - Concepts of Money, Liquidity and Finance - Money Illusion - Gresham's Law - RBI classification of Money - Theories of Money: Fisher and Cambridge (Marshall, Pigou, Robertson and Keynes equations) - Banking - Definition and types of Banking - Commercial Banks - Functions -Recent Trends in Banking - Mergers and Acquisitions - Central Bank - Functions - Control of Credit by Central Bank - NBFCsFactors contributing to their Growth and their Role

Module – 4: Inflation and Trade Cycles-Inflation: Concepts of Inflation, deflation, reflation and stagflation - Phillip's Curve - Measurement of Inflation - CPI and WPI -Types of Inflation - Causes and Consequences of Inflation -Measures to Control Inflation. Trade Cycles: Phases of a Trade Cycle -Causes and Measures to control Trade Cycles.

Module -5: Finance and Insurance-Financial Assets and Financial Instruments - Financial Markets - Functions of Money Market - Functions of Capital Market - Stock Market - Exchanges – Indices:Sensex and Nifty - Concept of Insurance -Types and Importance of Insurance

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(AUTONOMOUS), VUYYURU(2020 -2021)

SEMESTER – II	COURSE CODE:ECO-201
PAPER TITLE : MACRO ECONOMIC ANALYSIS	

Duration : 3Hours Maximum marks : 70 Pass marks : 28

SECTION - A

Answer any TWO of the following questions (2x5=10 Marks)

1. Circular Flow of Income.
2. Gresham's Law.
3. Types of Inflation.
4. Insurance.

SECTION – B

Answer any FOUR of the following questions **(4X15=60 Marks)**

5. Explain the Measurement Methods of National Income. .
6. Explainthe differences between the Micro Economic Analysis and MacroEconomic Analysis.
7. Explain the determining factors of consumption Function.
8. Critically Examine the J.B.Say's Law of Market.
9. Explainthe Functions of RBI.
10. Write about Fisher's Quantity Theory of money.
11. What is Trade cycle? Explain the phases of Trade cycles?
12.. Explain the causes and consequences of inflation..

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS), VUYYURU (2020 -2021)

The Guidelines to be followed by the question paper setters in **MACRO ECONOMIC ANALYSIS** for the II Semester – End Examinations of I B.A (2020-2021)

PAPER TITLE :-**MACRO ECONOMIC ANALYSIS**

Paper- IISemester – IIMaximum marks : 70Duration : 3Hours

Paper code:-Eco – 201

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (35Marks)	1	2
Unit-2 (30Marks)	---	2
Unit-3 (35Marks)	1	2
Unit-4 (35Marks)	1	2
Unit-5 (05Marks)	1	--
TOTAL 140	20	120

1.Each question carries 5 marks in Section-A

2.Each Essay question carries 15 marks in Section –B

3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us .

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS) VUYYURU (2020 – 2021)

B. A. ECONOMICS
II Year B. A. Programme (UG) Courses – Under CBCS
Semester – IV
Paper – IV (Core Paper)

Banking and International Trade

Module - 1
Trade Cycles - meaning and definition - Phases of a Trade Cycle -Inflation - definition - types of inflation - causes and effects of inflation measures to control inflation.

Module - 2
Banking: Meaning and definition -Functions of Commercial Banks - Concept of Credit creation-Functions of RBI - Recent developments in banking sectors.

Module – 3
Non-Bank Financial Institutions – Types of NBFIs - Factors contributing to the Growth of NBFIs —Money market – Defects of Indian money market

Module – 4
Concepts of Shares-Debentures - Stock Market - Functions - Primary and Secondary Markets -SEBI - - Insurance - Life Insurance and General Insurance.

Module - 5
Macro Economic Policy - Fiscal, Monetary and Exchange rate policies
Objectives and Significance - Importance of International Trade - Regional and International Trade – Defining Balance of Trade and Balance of Payment.

REFERENCES:

1. G.Ackley - "Macro Economics Theory and Policy", Collier Macmillan, 1978.
2. E.Shapiro - "Macro Economic Analysis", Galgotia Publications, 1999.
3. Central Statistical Organisations - "National Accounts Statistics".
4. R.Dornbush, s.Fisher and R.Startz - "Macro Economics", Tata Mc.Graw Hill, 9/e,2004.
5. M.L.Seth-"Macro Economics", Lakshmi NarayanaAgarwal, 2015.
6. K.P.M. Sundaram - "Money, banking & International Trade", Sultan Chand, 2010.
7. Dillard, D - "The Economics of John Maynard Keynes", Crossby Lockwood & Sons.
8. M.N.Mishra&S.B.Mishra - "Insurance Principles & Practice" S.Chand 2012.
9. BharatiV.Pathak "The Indian Financial System Markets. Institutions & Services".
10. Pearson.
11. D.M.Mithani&G.K.Murty - "Business Economics", Himalaya Publishing House, 2015.
12. M.L.Jhingan - Economic Development - Vikas, 2012.
13. G.Omkarnath - Economics - A Primer for India - Orient Blackswan, 2012.
14. Agarwal, V. (2010) Macroeconomics: theory and Policy, Dorling Kindersley (India)
15. Pvt. Ltd., New Delhi
16. Ahuja, H.L. (2012) Macro Economics, Theory and policy, S. Chand and Company Ltd.,

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU (2020-2021)

SEMESTER – IV	COURSE CODE:ECO-401C
PAPER TITLE : Banking and International Trade	

Duration : 3Hours Maximum marks : 70 Pass marks : 28

SECTION - A

Answer any TWO of the following questions (2x5=10 Marks)

1. Prosperity.
2. Commercial Banks.
3. NBFC.
4. Debentures.

SECTION – B

Answer any **FOUR** of the following questions **(4X15=60 Marks)**

5. What is a Trade cycle? What are its Stages?
6. Explain the functions of the Reserve Bank of India.
7. What are the functions of commercial Banks.
8. Explain the concept and functions of Non – Banking Financial Institutions.(NBFIS).
9. Explain the functions of Stock Markets?
10. Explain the functions of SEBI.
11. Explain the Regional and International Trade.
12. Explain the comparative cost theory of International Trade.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU (2020-2021)

The Guidelines to be followed by the question paper setters in **Banking and International Trade** for the Semester IV – End Examinations (2020-2021)

PAPER TITLE : **Banking and International Trade.**

Paper- IVSemester – IVMaximum marks : 70Duration : 3Hours

Paper code:-Eco – 401C

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (20Marks)	1	1
Unit-2 (35Marks)	1	2
Unit-3 (20Marks)	1	1
Unit-4 (35Marks)	1	2
Unit-5 (30Marks)	-----	2
TOTAL 140	20	120

1. Each question carries 5 marks in Section-A
2. Each Essay question carries 15 marks in Section –B
3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us .

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (VUYYURU (2020-2021)

B. A. ECONOMICS

III Year B. A. Programme (UG) Courses – Under CBCS
Semester – VI
Paper – VII-(A) (Elective Paper VII-(A)

AGRICUTURAL ECONOMICS

Module-1

Nature and Scope of Agricultural Economics. Factors affecting agricultural development: technological, institutional and general. Interdependence between agriculture and industry.

Module-2

Concept of production function : input-output and product relationship in farm production.

Module-3

Growth and productivity trends in Indian agriculture with special reference to Andhra Pradesh.Agrarian reforms and their role in economic development.

Module-4

Systems of farming, farm size and productivity relationship in Indian agriculture with special reference to Andhra Pradesh- New agriculture strategy and Green revolution : and its Impact

Module-5

Emerging trends in production, processing, marketing and exports; policy controls and regulations relating to industrial sector with specific reference to agro-industries in agribusiness enterprises.

RECOMMENDED / REFERENCE BOOKS

1. Sadhu An, Singh Amarjit and Singh Jasbir (2014), Fundamentals of Agricultural Economics, Himalaya Publishing House, Delhi
2. Lekhi RK and Singh Joginder, Agriculatural Economics, Kalyani Publishers
3. Bhaduri, A. (1984), The Economic Structure of Backward Agriculture, Macmillan, Delhi.
4. Bilgrami, S.A.R. (1996), Agricultural Economics, Himalayas publishing house, Delhi.
5. Dantwala, M.L. et.al (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi.
6. Government of India (1976), Report of the National Commission on Agriculture, New Delhi. 5. Government of India, Economic Survey (Annual), New Delhi.
7. Gualti, A. and T. Kelly (1999), Trade Liberalisation and Indian Agriculture Oxford University Press, New Delhi

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

(AUTONOMOUS) VUYYURU (2020 – 2021)

MODEL QUESTION PAPER

B. A. ECONOMICS

III Year B. A. Programme (UG) Courses – Under CBCS

Semester – VI(G.E) PAPER CODE: ECO-601GE

Elective Paper VII-(A)

PAPER TITLE :- AGRICUTURAL ECONOMICS

Duration: 3hrs **Maximum marks:70** **Pass marks:28**

Section:A

Answer any TWOof the following questions: **2x5= 10M**

1. objectives of Land Reforms.
2. organic farming
3. Production function
4. Rythu Bazar's

Section:B

Answer any FOUR of the following questions: **4x15=60M**

5. Explain the importance of Agriculture sector in developing economies

6. what are the causes for low productivity in indian agriculture sector? Explain the actions to increase the agicultural productions.

7. what is land reform? Explain the objectives and importance of Land Reforms

8. what are the causes for low productivity in indian agriculture sector? Explain the actions to increase the agricultural productions.

9. what is Green Revolution? what are the causes for Green Revolution and explain the effects of green Revolution on Indian Economy.

10. what is cooperative forming? Explain the merits and demerits it?

11. Explain the problems in production, processing and marketing in indian agriculture sector?

12. Explain the Remedies and defects of agricultural marketing in India.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU (2020-2021)

The Guidelines to be followed by the question paper setters in **Agricultural Economics** for the 6th semester-end exams (2020 - 2021)

PAPER TITLE : --- AGRICULTURAL ECONOMICS FINAL BA.

PAPER CODE ;ECO-601GE

Paper- VII –(A)Semester – VIMaximum marks : 70Duaration;3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	--	2
Unit-2 (05Marks)	1	--
Unit-3 (35Marks)	1	2
Unit-4 (35Marks)	1	2
Unit-5 (35Marks)	1	2
TOTAL 140	20	120

- Each short answer question carries 5 marks in Section-A
- Each Essay question carries 15 marks in Section –B

The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by US.

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF POLITICAL SCIENCE

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

15-07-2020

Minutes of the meeting of the Board of Studies in Political Science of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held in Online mode using SiscoWebex at 10.30 A.M on Wednesday the 15th july 2020 from the Department of Political Science.

Dr. G. Veerraju, HOD, Political Science presided over the BOS meeting

Members Present:

1).....**Chairman** Head, Department of Political Science
(Dr. G. Veerraju) AG & SG S Degree College of Arts & Science Vuyyuru-521165

2).....**University Nominee** Head Department of Politics The Hindu College Machilipatnam
(Dr.K.Raviteja)

3)..... **Academic Council** Principal and Head ,Department of Political
(Sri Dr .G.David Livingston) **Nominee** Science DN.R College Bhimavaram

4).....**Academic Council Nominee** Lecturer in Political Science Sir C.R.Reddy College Eluru
(Dr.D.Chilakamma

AGENDA

1. To review and recommend changes to the syllabi, model paper and guidelines in the 1st, 3rd and 5thsemesters of B.A ;
2. To recommend the guidelines to be followed by the Question Paper Setters in Political Science for all semester-end exams;
3 To recommend the teaching and the evaluation methods to be followed under the Autonomous System.
4. To suggest innovative methods of teaching; and

5 To propose the panel of Question Paper Setters and Examiners.

Resolutions

1.It is resolved include introdution to Political Science in place of basic concepct of political science for semester I and include Indian Government and Politics in place of Indian Constitution for III semester for the first & Second degree Students from the academic year 2020-2021

2.It isresolved to continue to the existing syllabus with out making any changes for V semester of B.A.

3.It is resolved adopt 30 marks for internal assessment and 70 for external assessment in V semester from the academic year 2020-2021.

4) It is Resolved to adopt the following teaching and evaluation methods:

A) Teaching methods:

Besides the conventional methods of teaching, it is also resolved to use various other methods like group discussions, quiz, developing power point presentations etc, for the better understanding of the contents.

B) Evaluation of present III year students is to be done by the following procedure:

a) Internal Assessment Examinations:

i) Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment;

ii) Out of these 30 marks, 20 marks are allocated for internal tests. The two tests will be conducted and average of these two tests shall be deemed as the marks obtained by a student,5 marks are allotted for assignments/seminars and remaining 5 marks are allotted for attendance

Internal Assessment for I&II BA Students

i) Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment.

ii) Out of these 30 marks, 20 marks are allocated for internal tests. The two tests will be conducted and average of these two tests shall be deemed as the marks

obtained by a student,Innovative Component like Assignments/quiz/Seminars/presentations/viva voce/group activity/miniproject/ Exhibitions ..Etc is for 5 marks and remaining 5 marks are allotted for attendance.

b) Semester-End Examinations:

i) The maximum marks for Semester-End examinations shall be 70 for I,II&III BA Students ,the duration of the examination shall be 3 Hours.

ii) Semester-End examinations shall be conducted at the end of every semester.

7) To organize Seminars, Guest lectures, and Workshops to upgrade the knowledge of students and to C impart new skills of learning as frequently as possible.

8) It is resolved to Authorize the Chairman of Board of Studies to suggest the Panel of Paper setters and Examiners to the Controller of Examinations as per the requirement.

9 It is resolved to Authorize the Chairman Board of Studies to make any changes According to

the Changes/ guidelines of the Competent authority in view of corona virus

Chairman

A.G &S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU-521165

(An Autonomous College in the jurisdiction of Krishna University , Machilipatnam)

Title of the paper: INTRODUCTION TO POLITICAL SCIENCE

Semester-I

Course Code	POLTIIB	Course Delivery Method	Class Room
Credits	4	CIA Marks	25
No.of Lecture Hours/Week	5	Semester End Exam Marks	75
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction2020-2021	Year of offering 2021-2022	Year of Revision 2021-2022	Percentage of Revision 0%

Course Context and overview: To train students in order to have clear understanding of politics, related concepts such as government, state sovereignty, legitimacy, power, influence, authority, democracy, power, political participation, political system etc.

COURSE OUTCOMES: INTRODUCTION TO POLITICAL SCIENCE

Course Outcomes: At the end of the course the student will be able to:

CO1: Define important field-specific theories and concepts, and understand their role in developing political science Knowledge: L-1 , L-2

CO2: Summarize conceptual arguments or theoretical approaches. L-3 , L-4

CO3: Apply them to field relevant situations and support their application with appropriate evidence. L-3, L-4

CO4: Compare and evaluate the merits of multiple policies, theories or concepts from different disciplinary perceptions. L-5

CO5: With the course, students are expected to learn the political concepts and theory in the Basic Concepts of Political Science. L-1, L-2

Learning Outcome:

On successful completion of the course the students will be able to:

- Recall the previous knowledge about Political Science and understand the nature and scope, traditional and modern approaches of Political Science.
- Understand concepts intrinsic to the study of Political Science.
- Have a solid theoretical understanding of Rights and its theories along with the basic aspects of certain political ideologies.
- Apply the knowledge to observe the field level phenomena.

UNIT:I INTRODUCTION: **15hrs.**

1. Definition, Nature, Scope and Importance of Political Science - Relations with allied Disciplines (History, Economics, Philosophy and Sociology)
2. Approaches to the study of Political Science:

   Traditional Approaches- Historical, Normative and Empirical Approaches.

   Modern Approaches:Behavioral and System Approach.

UNIT-II: STATE : **15 hrs**

Definition of the State, Elements of the State, Theories of Origin of the State-(Divine Origin , Force, Evolutionary and Social Contract),

1. Concepts of Modern State and Welfare State.

UNIT-III: CONCEPTS OF POLITICAL SCIENCE: **10 hrs**

1. Law, Liberty,
2. Power, Authority and Legitimacy

1. **UNIT:IV: THEORIES OF RIGHTS:** **10 hrs**
2. Meaning, Nature and Classification of Rights
3. Theories of Rights.

UNIT:V:POLITICAL IDEOLOGIES: **10 hrs**

1. Liberalism, Individualism and Anarchism.
2. Socialism, Marxism and Multiculturalism.

REFERENCE BOOKS:

1.	Sukhbir Bhatnagar	:	Constitutional Law and the Governance
2.	A. C. Kapur	:	Select Constitution
3.	R.C. Agarwal	:	Political THeory
4.	Vidyadhar Mahajan	:	Political Theory(Principles of Pol.Sci.
5.	Devi & V. Bhogendra Acharya,		
6.	Prof. V. Ravindra Sastry (ed)	:	Political Science Concepts,Theories & Institutions.
7 .	Jadi Musalaiah, V.Vasundhara		
8.	Laski H.J.	:	Grammar of Politics
9.	A.Appadorai	:	Substance of Politics
10.	Eddy Ashirvadam K.K.Misra	:	Political Theory
11.	Sushila Ramaswamy	:	Political Theory: Ideas & Concepts
12.	S.P. Varma	:	MOdern Political Theory
13.	O.P. Gauba	:	An Introduction to Political Science
14.	Abbas, Hoveyda & Ranjay Kumar	:	Political Theory
15.	Andrew Hakes	:	Political Theory, Philosophy, Ideology Science.
16.	Rajeev Bhargava & Ashok Acharya (ed)	:	Political Theory An Introduction
17.	Andrew Heywood	:	Political Ideologies-An Introduction
18.	Norman Barry	:	An Introduction to MOdern Political theory.

A.G &S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU-521165

(An Autonomous college in the jurisdiction of Krishna University, Machilipatnam)

Reaccredited at 'A Grade by NAAC

MODEL QUESTION PAPER (Semester-I) Course Code : POLTIIB

Time: 3 Hours change **Max. Marks : 75** 70

SECTION –A

Answer any five of the following questions.

Each carries **FIVE** marks : **(5X5=25 Marks)**

1.What is Political Science? L1- CO1

2.System Approach? L1 - Co1

3.Explain Divine Origin Theory. L1 – L2-Co2

4.Discuss 'Hobbes views on Human Nature. L5-Co2

5.Describe the features of Welfare State. L5 – CO2

6. Explain the features of Modern State. L2-CO2

7.Explain the meaning and sources of Law. L2-Co3

8. Explain the types of Authority. L2,CO3

SECTION –B

Answer the following : Each carries TEN marks. **(5x10=50 Marks)**

9.(a) Define Political Science and explain its Scope. L1-CO1

(or)

(b)Explain the 'Normative Approach ' to the study of Political Science. L2-L4-CO1

10 (a)Define State and Elements its characteristics. Co2-L1

(or)

(b) Critically examine the Social Contract Theory of Hobbes. *L1-L2-CO1*

11. (a) What it Liberty? What are the kinds of Liberty? *L2-L4-CO3*

(or)

(b) Define Legitimacy and kinds of Legitimacy. *L1-L2-COCo3*

12. (a) 'Rights and Duties are the two sides of the same Coin" - Discuss,. *L1-L5-Co4*

(or)

(b)Define Right and discuss various kinds of Rights.. *L2-CO4*

13. (a) Critically examine 'Communism". L5-Co5

(or)

(b)Explain the "Multiculturalism". L2-L3-Co1-Co5

New syllabus

B.A. POLITICAL SCIENCE SECONDYEAR

THIRD SEMESTER (Under CBCS w.e.f2020-21)

Course-3: INDIAN GOVERNMENT AND POLITICS

Course Code	POLT301C	Course Delivery Method	Class Room
Credits	4	CIA Marks	30
No.of Lecture Hours/Week	5	Semester End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Year of Introduction2020-2021	Year of offering 2021-2022	Year of Revision 2021-2022	Percentage of Revision 0%

Course Outcomes:

CO1: The students community has acquired knowledge of the making of the Indian Constitution and its philosophical background. L1
CO2: Information about the functionaries of the government both at the union and state level was acquainted by the student community.L1, L2
CO3. To Understand the legislative procedures which ensure the orderly conduct of business in our parliament and state legislative assemblies in India.
CO4: To understand know the Ministers, their role &responsibilities.L1,
CO5: To understand Judiciary of India.L1, L2

Learning Outcomes:

On successful completion of the course the students will be able to:

- Acquire knowledge about the historical background of Constitutional development in India, appreciate philosophical foundations and salient features of the Indian Constitution.

- Analyze the relationship between State and individual in terms of Fundamental Rights and Directive Principles of State Policy.
- Understand the composition and functioning of Union Government as well as State Government and finally
- Acquaint themselves with the judicial system of the country and its emerging trends such as judicial reforms.

UNIT-I :	SOCIAL AND IDEOLOGICAL BASE OF THE INDIAN CONSTITUTION	**15 hrs**
	1. Constitutional Development in India during British Rule-A Historical	
	2. Constituent Assembly-Nature, Composition, Socio-Economic, Philosophical Dimensions and Salient Features of the Indian	

UNIT-II	INDIVIDUAL AND STATE	**15 hrs**
	1. . Fundamental Rights, Directive Principles of State Policy and Fundamental Duties-Differences between Fundamental Rights and Directive Principles of State Policy.	
	2. The 'Doctrine of Basic Structure of the Constitution' with reference to Judicial Interpretations and Socio-Political Realities.	

UNIT-III :	UNION EXECUTIVE	**10 hrs**
	1. President of India-Mode of Election, Powers and Functions.	
	2. Parliament-Composition, Powers and Functions, Legislative Committees, Prime Minister and Council of Ministers-Powers and	

UNIT-IV :	STATE EXECUTIVE **10 hrs**
	1. Governor-Mode of Appointment, Powers and Functions.
	2. Legislature-Composition, Powers and Functions, Chief Minister and

UNIT-V :	THE INDIAN JUDICIARY **10 hrs**
	1. Supreme Court-Composition and Appointments, Powers and Functions or Jurisdiction of the Supreme Court, Judicial Review, Judicial
	2. High Court-Composition, Powers and Functions, Debates on the mode of appointment of Judges-National Judicial Appointments

A.G &S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
[AUTONOMOUS] VUYYURU-521165

SEMESTER-III CODE-POLT301C ACADEMIC YEAR-2020-2021

PAPER TITLE:INDIAN GOVERNMENT AND POLITICS

Duration: 3 Hours Maximum Marks:70 Pass Marks:28

Section-A

Answer any Two of the following questions (2x5=10 Marks)

1. Explain the Indian Government act of 1935.
2. Describe the Fundamental duties of Indian citizens.
3. Discuss the various Legislative committees.
4. Judicial Review.

Section-B

Answer any Four of the following questions (4x15=60 Marks)

5. Explain the salient features of the Indian Constitution.
6. Explain the Fundamental Rights of the Constitution.
7. Explain the powers and Functions of the President of India.
8. Explain the powers and Functions of Chief Minister.
9. Describe the structure and Functions of Supreme Court of India.
10. Explain the powers and Functions of Prime Minister.
11. Explain the Directive Principles of the state policy in Indian Constitution.
12. Explain the powers and Functions of Governor.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (*2020-21*) VUYYURU

SEMESTER – V	COURSE CODE: POL – 501C

PAPER TITLE : PAPER-V (CORE): INDIAN POLITICAL THOUGHT

External: 75 Internal: 25

Unit -I:

1. Manu:
   a. Social laws
   b. danda neethi

2. Kautilya:
   a. kingship
   b. Mandala Theory
   c. Saptanga Theory

UNIT – II

1. Gandhi:
   a. Non-violence, Satyagraha.
   b. Theory of Trusteeship.

2. Joythi Rao Pule: Social reform

UNIT – III

Nehru:

a. Democratic Socialism.
b. Non-Alignment

Ambedkar:

a. views on Indian Society.
b. Social Movements.

UNIT – IV

M.N. Roy:

Radical Humanism

Jaya Prakash Narayan:

a. Total Revolution.
b. Sarvodaya.

Text Books

1. "Rajaneethi Thatvavicharam": A Text Book by Telugu Academy.

Reference books:

1. Pantham Thomas and Kenneth Deutsch(Ed)(1986)
Political thought in modern India, Sage, New Delhi

2. BidyutChakrabarthy and Rajendra Kumar Pandey (2009) modern Indian political thought, Sage, New Delhi
3. Gurpreet Mahajan (2013), India : Political ideas and making of a democratic discourse, zed book, London
4. Partha Chatterjee (1986) nationalist thought and the colonial world: A derivative disclosure, zed books, London
5. Bhikhu Parekh (1999) colonialism, tradition and reform,Sage,New Delhi
6. Bhikhu Parekh(1989) Gandhi's political philosophy ,Macmillan, London.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE, VUYYURU

(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM, A.P)

POLITICAL SCIENCE	POL 501C	2020-21	III BA

EXAMINATION AT THE END OF FIFTH SEMESTER

SEMESTER – V
TIME: 3 HRS

PAPER – V MAX. MARKS: 70

Model Paper

Indian Political Thought

Section – A

I. ANSWER any TWO OF THE FOLLOWING. **(2 ×5 = 10)**

1) DANDA NEETHI.
2) write about Koutilya's Saptanga.
3) Explain Gandhi's Theory of Trusteeship
4) DR. AMBEDKAR'S ANNIHILATION OF CASTE.

Section – B

Answer any FOUR of the following. **(4 × 15 = 60)**

5) Explain Manu's classification of Varna.
6) Explain the mandala theory of kautilya.
7) State and criticize Gandhi's satyagraha and non-violence.
8) Write an essay on social movements led by Dr. Ambedkar.
9) Writean essay on mahatma Jyothirao Phule
10) Discuss Jawaharlal Nehru's views on Democratic Socialism.
11) Briefly explain Jaya Prakash Narayan's total revolution
12) Write about M.N. Roy's radical humanism

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (*2020-21*) VUYYURU

SEMESTER – V	COURSE CODE: POL – 502C
PAPER TITLE :	PAPER-VI (CORE): WESTERN POLITICAL THOUGHT

No. of Hours per week: 6 Max. Marks: 100

No. of Credits: 4 External: 75 Internal: 25

Unit-I: Plato:

a.Theory of Justice
b. Education System
c.Philosopher -King
d.Theory of Communism

Unit-II: Aristotle:

a. Ideal state
b. Theory of Revolutions.
c. Classification of governments

Unit-III:

1. Machiavelli-political Ideas,Advice to the Prince
2. Thomas Hobbes: Human nature, Social Contract, Sovereignity
3. John Locke: Natural Rights and Social Contract,
4. Rousseau: Social Contract and General Will

Unit-IV:

1. **Hegel:** Civil Society, State
2. **Karl Marx**: Surplus Value, Materialist Conception of History, State

Reference books:

1. ShefaliJha (2010) Western Political Thought from Plato to Karl Marx, Pearson, New Delhi
2. Boucher D and Kelly P (Eds) (2009) Political Thinkers from Socrates to the Present, Oxford University press, oxford
3. Coleman J (2000) A History of Modern Political Thought: From Ancient Greece to early Christianity, Blackwell publishers, oxford
4. Macpherson C B (1962) The Political Theory of Possessiveness Individualism, Oxford University press, oxford
5. Hampsher-monk I (2001) A History of Modern Political Thought: Major Political Thinkers fromHobbers to Marx,Blackwell publishers, oxford

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE, VUYYURU

(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM, A.P)

POLITICAL SCIENCE	POL 502C	2020-21	III BA

EXAMINATION AT THE END OF FIFTH SEMESTER

SEMESTER – V

TIME: 3 HRS PAPER
MAX. MARKS: 70

Model paper

Western political thought

Section – A

I. Answer any **two** of the following (2 × 5 = 10)

1) Philosopher-king
2) What are the views of hobbes on human nature.
3) Theory of natural rights
4) Examine mark's views on class War

Section – B

II. Answer any **Four** of the following. (4 × 15 = 60)

5) Explain the features of plato's education
6) Analyze aristotle's views on revolutions.
7) What are qualities of a Prince suggested by Machiavelli?
8) Social Contract Theory of Rousseau
9) Social Contract Theory of Hobbes
10) Explain Plato's Theory of Justice
11) Plato system of education
12) Karl Marx's Theory of Communism.

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF POLITICAL SCIENCE

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

01-06-2021

Minutes of the meeting of the Board of Studies in Political Science of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 1-6-2021 through online mode in the Department of Political Science.

Dr. G. Veerraju, HOD, Political Science presided over the BOS meeting

Members Present:

1)..... (Dr. G. Veerraju)	**Chairman**	Head, Department of Political Science AG & SG S Degree College of Arts & Science Vuyyuru-521165
2)..... (Dr.K.Raviteja)	**University Nominee**	HOD,Dept ofPolitics The Hindu College Machilipatnam
3)..... (SriG.David Livingston)	**Academic Council Nominee**	Head ,Department of Political Science DN.R College Bhimavaram
4)..... (Dr.D.Chilakamma	**Academic Council Nominee**	Lecturer in Political Science Sir C.R.Reddy College Eluru

AGENDA

1. To review and recommend changes to the syllabi, model paper and guidelines in the 2nd 4th and 6th semesters of B.A ;

2.To recommend the guidelines to be followed by the Question Paper Setters in Political Science for allsemester-end exams;

3 To recommend the teaching and the evaluation methods to be followed under the Autonomous System.

4. To suggest innovative methods of teaching; and

5.To propose the panel of Question Paper Setters and Examiners.

RESOLUTIONS : The following resolutions were passed unanimously :

1) Resolved to follow the APSCHE syllabus for second semester .

2) To continue the existing syllabi of all remining papers without any change for the academic year 2020-2021;

3) To adopt the following teaching and evaluation methods:

A) Teaching methods:

Besides the conventional methods of teaching, it is also resolved to use various other methods like group discussions, quiz, developing power point presentations etc, for the better understanding of the contents.

B) Evaluation ofpresent III year students is to be done by the following procedure:

a) Internal Assessment Examinations:

i) Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment;

ii) Out of these 30 marks, 20 marks are allocated for internal tests. The two tests will be conducted and average of these two tests shall be deemed as the marks obtained by astudent,5 marks are allotted for assignments/seminars and remaining 5 marks are allotted for attendance

Internal Assessment for I&II BA Students

i) Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment.

ii) Out of these 30 marks, 20 marks are allocated for internal tests. Ttwo tests will be conducted and average of these two tests shall be deemed as the marks obtained student,InnovativeComponent like Assignments/quiz/Seminars/presentations/viva voce/group activity/miniproject/ Exhibitions ..Etcis for 5 marks and remaining 5 marks are allotted for attendance.

b) Semester-End Examinations:

i) The maximum marks for Semester-End examinations shall be 70 for all BA Students ,the duration of theexamination shall be 3 Hours.

ii) Semester-End examinations shall be conducted at the end of every semester.

7) To organize Seminars, Guest lectures, and Workshops to upgrade the knowledge of students and to impart new skills of learning as frequently as possible.

8) To authorize the Chairman of Board of Studies to suggest the Panel of Paper setters and Examiners to the Controller of Examinations as per the requirement.

Chairman

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2020-21) VUYYURU

SEMESTER – II	CODE: POLT21B
PAPER TITLE : BASIC ORGANS OF THE GOVERNMENT	

Max. Marks: 100 External: 70 Internal: 30

UNIT-I :
1. Meaning, Definition, Origin and Evolution of Constitution.
2. Classification of the Constitutions-Written and Unwritten; Rigid and Flexible.

UNIT-II :
1. Theory of Separation of Powers-B.D.Montesquieu.
2. Legislature-Unicameral and Bicameral-Power and Functions, Executive-Types,Powers and Functions. Judiciary-Powers and Functions.

UNIT-III :
1. Unitary and Federal forms of Governments-Merits and Demerits.
2. Parliamentary and Presidential forms of Governments- Merits and Demerits.

UNIT-IV : 1. Meaning, Definition, Significance, Theories and Principles of Democracy.
2. Types of Democracy: Direct and Indirect Democracy-Methods, Merits and Demerits-Essential Conditions for Success of Democracy.

UNIT-V :
1. Meaning, Definition and Classification of Political Parties: National and Regional-Functions of Political Parties.
2. Pressure Groups (Interest Groups)- Meaning, Definition, Types, Functions and Significance of Public Opinion.

Reference Books:

1. Principles of Political Science, Concept, Theories and institutions – Telugu Academy
2. Principles of Political Science – A. C Kapoor
3. Principles of Political Science, Concept, Theories and institutions – Ambedkar Open University
4. Principles of Political Science – J. C. Johari
5. Principles of Political Science – R.C. Agarwal

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS), (2020-21)

VUYYURU

SEMESTER – II	CODE: POLT21B
PAPER TITLE : BASIC ORGANS OF THE GOVERNMENT	

Duration : 3Hours Maximum marks : 70 Pass marks : 30

SECTION - A

Answer any TWO following questions (2x5=10 Marks)

1. Written constitution
2. Bicameralism
3. Democracy
4. Public opinion

SECTION – B

Answer any FOUR of the following questions (4x15=60 Marks)

5.Write about the meaning.definition origin and evolution of constitution

6.Write an essay on the theory of separation of powers

7.What are the functions of legislature

8.What are the characteristics of parliamentary democracy

9. What are the features of presidential democracy

10. Describe the merits and demerits of Democracy

11.Discuss the functions of Judiciary

12. Write about the meaning definition and classification of political parties

The Guidelines to be followed by the question paper setters in political science

II nd semester - end exams 2020-2021

PAPER TITLE : **BASIC ORGANS OF THE GOVERNMENT**

Paper- IISemester – II

Maximum marks : 70Duration : 3Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (20Marks)	1	1
Unit-2 (35Marks)	1	2
Unit-3 (30Marks)		2
Unit-4 (35Marks)	1	2
Unit-5 (20Marks)	1	1

1. Each question carries 5 marks in Section-A
2. Each Essay question carries 15 marks in Section –B

The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU

(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam, A.P.)

Political Science	POL 401C	2020-21	II BA

SEMESTER – IV **SYLLABUS** **PAPER - IV**

INDIAN POLITICAL PROCESS

UNIT – I:

a) Definition and role of Political Parties
b) Characteristics of Indian Party System
c) Classification of Indian Political Parties

UNIT – II

a) Election Commission - Structure , Powers and Functions
b) Electoral Reforms
c) A Critical Study of Recent Lok Sabha and Legislative Assembly elections in A.P.

UNIT – III:

a) Indian National Congress - Organization, Policies & Programmes
b) BJP - Organization, Policies & Programmes - its role in National Politics
c) Communist Parties - CPI and CPI (M) - Policies & Programmes
d) YSR, DMK and AIADMK, Telugu Desam Party, T.R.S

Unit-IV:

a) Voting Behaviour and its determinants.
b) Caste in politics.
c) Class in politics.
d) Gender in politics.
e) Religion in politics

UNIT – V:

a) Coalition Politics in India - Causes and limitation
b) National Integration : Meaning , importance and threats .
c) Social movements : Women and Environmental Movements

REFERENCE BOOKS:

1. Indian Constitution and Government - R.L.Gupta
2. Constitutional History of India - M.V.Pylee
3. Indian Government and Politics - S.S.Awasti
4. Indian Government and Politics - J.C.Johari

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU

(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam, A.P.)

Political Science	POL 401	2020-2021	II BA

SEMESTER – IV **MODEL QUESTION PAPER** **PAPER - IV**

IMaximum marks : 70 Duration : 3Hours

INDIAN POLITICAL PROCESS

SECTION - A

Answer any two of the following questions .. .. 2x5=10 Marks

1. Classification of indian political parties
2. Election reforms
3. TRS Party
4. Caste In Indian Politics

SECTION – B

Answer any four of the following questions .....4x15=60marks

5 What are the Characteristics of Indian Party System

6 write about Structure , Powers and Functions of Election Commission

7.write about BJP - Organization, Policies & Programmes

8. . Write an essay on Indian National Congress

9 State the voting behaviour in general election in AP

10. What is National Integration? Explain the causes that impact in National Integration

11. discuss the Role of Rligion and gender in Indian polics

12. Write an essay on coalition Politic in India

The Guidelines to be followed by the question paper setters in political science IV Semester - End Exams (2020-2021)

PAPER TITLE : INDIAN POLITICAL PROCESS

Maximum marks : 70 Duration : 3Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)		2
Unit-2 (20Marks)	1	1
Unit-3 (35Marks)	1	2
Unit-4 (20Marks)	1	1
Unit-5 (35Marks)	1	2

1. Each question carries 5 marks in Section-A
2. Each Essay question carries 15marks in Section –B
3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us

AG & SG Siddhartha Degree College of Arts and Science, Vuyyuru

(An autonomous college in the jurisdiction of Krishna University, Machilipatnam, A.P)

Political Science	POL 601GE	2020-21	III BA

Semester-VI Syllabus Paper –VII C(Elective)

LOCAL SELF - GOVERNMENT IN ANDHRA PRADESH

Unit- I: Evolution of Local Self-Government in India

1. Constitutional Provisions on local Self-Government
2. Recommendations of Balwanthrai Mehta and Ashok Mehta Committees on Local Self – Government

Unit-II: Importance of Constitutional Amendments

1. 73rd Amendment – Rural Local bodies; Basic features
2. 74th Amendment – Urban Local bodies; Basic features

Unit-III: Structure and functions of Panchayati Raj in Andhra Pradesh

1. Gram Panchayat
2. MandalParishad
3. ZillaParishad

Unit-IV: Structure and functions of urban local bodies in Andhra Pradesh

1. Nagar Panchayats
2. Municipalities
3. Municipal Corporations

Unit-V: Role of leadership and Emerging Challenges

1. Emerging patterns of leadership
2. Problems of autonomy: Financial and Administrative sphere

Reference Books:

1. Maheswari, S.R., Local Self Government in India, Orient longman, 1971
2. Venkatesan V, InstitutionalisingPanchayati Raj in India, Institute of Social Sciences, New Delhi 2002
3. BaviskarB.S,Inclusion and Excision in Local Governance, Sage Publication, New Delhi2009.
4. M.P. Dube and Padalia, M (Ed), Democratic Decentralization and Panchayati raj in India, Anamika Publishers, New Delhi, 2002.
5. BalaRamulu, CH and Ravinder D, "Five Decades of Democratic Decentralization process in Andhra Pradesh" in Social Change (Journal of the Council for Social Development published by Sage International) Vol.42, No.2, PP165-186, June 2012.

AG & SG Siddhartha Degree College of Arts and Science, Vuyyuru

(An autonomous college in the jurisdiction of Krishna University, Machilipatnam, A.P)

Political Science	POL 601GE	2020-21	III BA

Paper –VII C(Elective)

Semester-VI

LOCAL SELF - GOVERNMENT IN ANDHRA PRADESH

Time: 3hrs Max.Marks: 70

Section-A

Answer any two of the following Questions **2x5=10M**

1 Write a note on village Panchayats

2. 73rd constitution amendment act-1992

3.Nagarapanchayats

4. Explain the composition of ZillaParishad

SECTION-B

Answer any Four of the following Questions **4x15=60M**

5. Explain about the Panchayati Raj in Andhra Pradesh?

6. Recommendations of Balwantrai Mehta Committees on Local Self -Government?

7. Describe the main provisions of the 73rd constitutional amendment act 1992?

8. Describe the main provisional of the 74th constitutional amendment act 1993?

9. Explain types of urban local bodies?

10. Explain the Composition and functions of Municipal corporation?

11. Explain the composition and functions of Municipalities?

12. Role of leadership and Emergingpatterns

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE,
VUYYURU

(An autonomous college in the jurisdiction of Krishna university, Machilipatnam, A.P)

POLITICAL SCIENCE	POL 601GE	2020-21	III BA

semester-VI paper –VII c(elective)

LOCAL SELF - GOVERNMENT IN ANDHRA PRADESH

Time: 3hrs Max.Marks: 70

Guidelines to the paper setter

SECTION	Unit-I	Unit-II	Unit-III	Unit-IV	V
A 5 Marks Questions	1	1	1	1	
B 15 Marks Questions	2	1	2	2	1
Weight age	35	20	35	35	15

AG & SG Siddhartha Degree College of Arts and Science, Vuyyuru

(An autonomous college in the jurisdiction of Krishna University, Machilipatnam, A.P)

Political Science	POL 602CE	2020-21	III BA

Semester-VI Syllabus Paper –VIII C1

(Clusters)

INTERNATIONAL RELATIONS

Unit- I: Basic Concepts of International Relations

1. Meaning, Nature and Scope of International Relations
2. (a). Balance of power (b). National interests (c). Collective Security (d). Diplomacy

Unit-II: Approaches to the study of International Relations

1. Idealism – Woodrow Wilson
2. Classical Realism – Hans Morgenthau
3. Neo – realism – Kenneth Waltz

Unit-III: Phases of International Relations (1914-1945)

1. Causes for the First World War
2. Causes for the Second World War

Unit-IV: Phases of International Relations (1945 onwards)

1. Origins of First Cold War
2. Rise and Fall of Détente
3. Origins and the End of Second Cold War

Unit-V: International Organisation

1. The role of UNO in the protection of International Peace
2. Problems of the Third World : Struggle for New International Economic Order

Reference Books:

1. Jackson, R and Sorensan Y, Introduction to International Relations; Theories and approaches,

AG & SG Siddhartha Degree College of Arts and Science, Vuyyuru

(An autonomous college in the jurisdiction of Krishna University, Machilipatnam, A.P)

Political Science	POL 602CE	2020-21	III BA

Semester-VI Paper –VIII C1 (Cluster)

INTERNATIONAL RELATIONS

Time: 3hrs Max.marks: 70

Section-A

Answer any two of the following Questions **2x5=10M**

1. Balance of power
2. Collective Security
3. Neo – realism
4. Causes of Second world war

section-B

Answer any four of the following Questions **4x15=60M**

5. Explain nature and scope of International Relations?
6. Discuss the concept of National interests and Diplomacy?
7. Write an essay on Woodrow Wilson Idealism?
8. Discuss the Classical Realism of Hans Morgenthau?
9. Explain the Causes for the First World War?
10. Discuss the Origins Of First Cold War?
11. Explain the Origins And End Of Second Cold War?
12. What is the role of UNO in the protection of International Peace?

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE, VUYYURU

(An autonomous college in the jurisdiction of krishna university, machilipatnam, A.P)

POLITICAL SCIENCE	POL 602CE	2020-21	III BA

Semester-VI paper –VIII C1 (clusters)

INTERNATIONAL RELATIONS

Time: 3hrs Max. marks: 70

Guidelines to the paper setter

SECTION	Unit-I	Unit-II	Unit-III	Unit-IV	V
A 5 Marks Questions	1	1	1	1	
B 15 Marks Questions	2	2	1	2	1
Weight age	35	35	20	35	15

Note: In view of vast syllabus more weightage given to unit-I

AG & SG Siddhartha Degree College of Arts and Science, Vuyyuru

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Political Science	POL 603CE	2020-21	III BA

Semester-VI Syllabus Paper –VIII C2 (Clusters)

INDIAN FOREIGN POLICY

Unit- I: Evolution of Indian Foreign of Policy

1. Determinants of Indian Foreign of Policy
2. Continuity and change in Indian Foreign Policy

Unit-II: Non-Alignment and UNO

1. The role of India in the Non-Alignment Movement
2. Relevance of Non-Aligned Movement in the Contemporary World
3. Role of India in the UNO in protection of International Peace

Unit-III: India's Relation with USA and China

1. Indo- US Relations: Pre- Cold War Era, Post- Cold War Era
2. India – China Relations: Pre- Cold War Era, Post- Cold War Era

Unit-IV: India and her Neighbours

1. Indo- Pakistan Relations
2. India's role in South Asian Association of Regions Cooperation (SAARC)

Reference Books:

1. David Scott (Ed), Handbook of India's International Relations, London, Routledge,2011
2. Ganguly, S (Ed), India as an Emerging Power,Portland, Franck class, 2003
3. Pant, H, Contemporary Debates in Indian Foreign and Security Policy, London, Palgrave Macmillian,2008
4. Tellis, A and Mirski, S (Eds), Crux of Asia; China, India, and the Emerging global Order, Washington, Carnegie endowment for international peace,2013
5. Muni, S.D, India's Foreign Policy Delhi CUP, 2009
6. Alyssa Ayres and Raja Mohan, C (Eds), Power Realignment in Asia: China, India and the United States, New Delhi, Sage, 2002
7. Appadorai, A, Domestic roots of Indian Foreign Policy, New Delhi, OUP,1971

AG & SG Siddhartha Degree College of Arts and Science, Vuyyuru

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Political Science	POL 603CE	2020-21	III BA

Semester-VI

Paper –VIII C2 (Cluster)

INDIAN FOREIGN POLICY

Time: 3hrs

Max.marks: 70

Section-A

Answer any two of the following Questions **2x5=10M**

1. Determinants of Indian Foreign of Policy
2. Cold War
3. United Nations Organization (UNO)
4. Non alignmovement

Section-B

Answer any four of the following Questions **4x15=60M**

5 Write an essay on Evolution of Indian Foreign of Policy?

6. Explain the Relevance of Non-Aligned Movement in the Contemporary World?

7. Write an essay on the Role of India in the UNO in protection of International Peace?

8. Critically evaluate the India – US Relations in Post- Cold War Era?

9. What are the major developments in Indo-China relations since Indian independence?

10. Write an essay on Indo-Pak relations since independence?

11. Write about India's Role in SAARC?

12 India – China Relations: Pre- Cold War Era

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Political Science	POL 603CE	2020-21	III BA

Semester-VI Syllabus Paper –VIII C2 (Cluster)

INDIAN FOREIGN POLICY

guidelines to the paper setter

SECTION	Unit-I	Unit-II	Unit-III	Unit-IV
A 5 Marks Questions	1	1	1	1
B 15 Marks Questions	2	2	2	2
Weight age	35	35	35	35

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE, VUYYURU
(An autonomous college in the jurisdiction of Krishna University, Machilipatnam, A.P)

Political Science	POL 604CE	2020-21	III BA

Semester-VI | Syllabus | Paper –VIII C3 (Clusters)

GROUP PROJECT WORK

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF COMMERCE

MINUTES OF BOARD OF STUDIES

ODD SEMESTER

15-07-2020

Minutes of the meeting of Board of studies in Commerce for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at *10.30 A.M on 15-7-2020* through CiscoWebex Meeting

Dr. K.Venkateswarlu ... ***Presiding***

Members Present:

1) ..... (Dr.K.Venkateswarlu)	Chairman	Head, Department of Commerce AG & SG S Degree College of Arts & Science Vuyyuru
2) ..... (Dr.R.Padmaja)	University Nominee	Asst. Professor Krishna University Machilipatnam
3) ..... (Dr.K.Peddiraju)	Subject expert	Lecturer in Commerce, Govt. Degree College Razole
4) ..... (Dr.G.Nagaraju)	Subject expert	Lecturer in Commerce Acharya Nagarjuna University Guntur.
5) V.V. Punnarao ..... (*Sri* V.Punnarao)	Member	General Manager K.C.P & IC Ltd Vuyyuru.
6) ..... (*Sri* V.Balaji)	Member	Chartered Accountant Managing Partner Balaji V & Co Vuyyuru
7) ..... (*Sri* N.Vasantha Rao)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru
8) ..... (*Sri* V.Gopichand)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru
9) ..... (*Sri* K.SekharBabu)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru
10) A.N.L.Manohari ..... (Ms A.N.L Manohari)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru

Agenda of B.O.S Meeting:

1. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Commerce for the 1st Semester as per the guidelines and instruction under CBCS prescribed by APSCHE from the Academic Year 2020-21.

2. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Commerce for the 3rdSemester as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

3. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Commerce for the 5thSemester as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

4. To recommend the Blue print of I, III & V Semesters of B.Com (General & Computers) for the Academic Year 2020-21.

5. To recommend the Teaching and Evaluation methods to be followed under CBCS

6. Any other suggestions regarding Certificate Course, Seminars, Workshops, Guest Lectures to be organized.

7. Any other matter.

RESOLUTIONS

1. Discussed and recommended the syllabi, Model Question Papers and Guidelines for question paper setters in Commerce for the 1st Semester of **I B.Com., (general & computer)** for the Academic year 2020-21.prescribed by APSCHE
Business Environment paper is introduced
2. Discussed and recommended that no changes are required in syllabi, Model Question Papers and Guidelines for question paper setters in Commerce for the 3rd Semester of **II B.Com., (general & computer)** for the Academic year 2020-21.

3. Discussed and recommended that no changes are required in syllabi, but some minor changes are required in Model Question Papers and Guidelines for question paper setters in Commerce for the 5th Semester of**III B.Com., (general & computer)** for the Academic year 2020-21.

4. It is resolved to continue the same blue prints of I.III. & V Semesters of Degree B.Com **(general & computer)** for the Academic year 2020-21.

5. Itis resolved to continue following Teaching and Evaluation methods for Academic year 2020-21.

6. **It is resolved to Introduced Value Added Programme on Tally**

7.Insurance Promotion (SDC) is introduced for I Semester

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector, display on U boards etc, for better understanding of concepts.

Evaluation of a student is done by the following procedure:

Internal Assessment (IA)III B.Com (General & Computers)

- Out of maximum 100 marks in each paper 30 marks shall be allocated for internal assessment for III.B.Com and (General & Computers). Out of these 30 marks, 20 Marks are allocated for announced tests (i.e. IA-1 & IA-2). Two announced tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, 5 marks allocated on the basis of candidate's percentage of attendance and remaining 5 marks are allocated for the assignment. There is no minimum passing for IA.

Semester Examinations (SE)

- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration, with maximum 70 marks, irrespective of the number of credits allotted to it.
- Even though the candidate is absent for two IA exams/obtained zero marks, the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.

- The pass mark shall be 28 out of 70 in the Semester end examination.
- The maximum marks for each Paper shall be 100.(Internal 30 + External 70)

7. Discussed and recommended to organize certificate course online/offline, seminars, Guest lectures, Online Examinations and Workshops to upgrade the knowledge of students for Competitive Examinations for the approval of the Academic Council.
8. It is resolved to follow further changes if any in the Syllabus by the Competent Authority

Chairman

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

(AUTONOMOUS)

(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	CACC -101G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – I SYLLABUS

Fundamentals of Accounting - I

Unit-I – Introduction to Accounting

Need for Accounting – Definition – Objectives, Advantages – Book keeping and Accounting– Accounting concepts and conventions - Accounting Cycle - Classification of Accounts and its rules - Double Entry Book-keeping - Journalization - Posting to Ledgers, Balancing of ledger Accounts (problems).

Unit –II: Subsidiary Books:

Types of Subsidiary Books - Cash Book, Three-column Cash Book- Petty cash Book (Problems).

Unit-III: Trail Balance and Rectification of Errors:

Preparation of Trail balance - Errors – Meaning – Types of Errors – Rectification of Errors (Problems)

Unit-IV- Bank Reconciliation Statement:

Need for bank reconciliation - Reasons for difference between Cash Book and Pass Book Balances- Preparation of Bank Reconciliation Statement- Problems on both favorable and unfavourable balances.

Unit -V: Final Accounts:

Preparation of Final Accounts: Trading account – Profit and Loss account – Balance Sheet – Final Accounts with adjustments (Problems).

Reference Books

1. T.S.Reddy & A. Murthy, Financial Accounting , Margham Publications

2. R L Gupta & V. K Gupta, Principles and Practice of Accounting, Sultan Chand & Sons

3. S.P. Jain & K.L Narang, Accountancy-I, Kalyani Publishers

4. Tulasian, Accountancy -I, Tata McGraw Hill Co.

5. V.K.Goyal, Financial Accounting, Excel Books.

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Commerce	CACC -101G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – I

Fundamentals of Accounting - I

Model Question Paper

Time: 3 hrs Max. Marks:70

SECTION – A

I. Answer any TWO of the following 2X5=10

1. Distinguish between Book- keeping and Accounting?

2. State different types of Subsidiary books?

3. Explain different types of errors?

4. Explain the various reasons for preparation of Bank reconciliation statement?

SECTION – B

II.Answer any FOUR of the following 4X15=60

5. Explain accounting concepts and conventions?

6. Pass necessary entries and prepare ledger for the following

    1. March 1st vishwanath started business with Rs.30, 000

    2. March 2nd purchased machinery for Rs.5000

    3. March 3rd purchased goods from madanlal for Rs.2500

    4. March 3rd sold goods to giri for Rs.4000

    5. March 4th purchased goods from jai for Rs.5000

    6. March 6th sales Rs.5000

    7. March 10th received interest from mukund Rs.2000

    8. March 11th cash deposited at bank Rs.6000

9. March 14th paid to jai for final settlement Rs.2900

10. March 16th sold goods to Venkat Rs.4000

11. March 18th venkat paid Rs.3890 for final settlement

12. March 29th rent paid through cheque Rs.500

7. Enter the following transactions in a Three Column Cash Book:

2010 January :

01 Cash in hand Rs.14, 000; balance at bank Rs.5, 000

03 Cash sales Rs.6000

05 Paid Rs.7, 000 into bank

06 Received a cheque for Rs.700 from Suraj

08 Paid into bank Suraj's cheque Rs.700

10 Paid to Anurg by cheque Rs.980 in full settlement of

His account of Rs.1000

11 Withdrew from bank for office Rs.4, 000

12 Cash sales Rs.8,000

13 Received cheque from John for Rs.10,000 and lodged it into bank

For clearance

14 Paid commission to Ram by cheque Rs.500

15 John's cheque dishonored

29 Drew a cheque for Rs.800 for personal use.

31 Paid salaries by cheque Rs.1, 500 and by cash Rs.500

31 Bank charges Rs.20 and insurance premium Rs.520 as shown in Passbook

8. Prepare a Trial Balance from the following balances.

Capital 24,000

Drawings	4,500
Purchases	20,000
Sales	30,500
Returns inwards	1,500
Salaries	12,200
Wages	1,550
Bad debts	1,100
Debtors	14,000
Creditors	10,000
Provision for doubtful debts	1,900
Cash	6,200
Insurance	700
Plant & Machinery	7,150
Bills payable	2,500
Furniture	5,000
Land and buildings	7,000
Outstanding wages	2,000
Interest received	2,000
Bank overdraft	4,000
Other short term liabilities	4,000

9. From the following particulars as certain the balance that would appear in the cash book of Brahmaji as at 31st December 2015, after making the necessary adjustments.

	Rs.
Overdraft as per pass book (31-12-15)	13,880

Interest on overdraft for six months ending	
31-12-15 (not yet entered in cash book)	240
Bank charges for the above period	
(Not yet entered in the cash book)	60
Cheques drawn but not cashed by the customers	
Prior to 31-12-15	2,300
Cheques paid in to the bank but not cleared	
Before 31-12-15	4,340
A bills receivable (discounted with the bank in	
November 2015) dishonoured debited in the passbook	1,000

10. From the following Trial Balance of Hari and additional information prepare Trading and Profit and Loss Account for the year ended 31st March, 2015 and a Balance Sheet as on that date:

TRIAL BALANCE as on 31st March, 2015

PARTICULARS	Dr.(Rs.)	Cr.(Rs.)
Capital	--	1,00,000
Furniture	20,000	--
Purchases	1,50,000	--
Debtors	2,00,000	--
Interest earned	--	4,000
Salaries	30,000	--
Sales	--	3,21,000
Purchase Returns	--	5,000
Wages	20,000	--
Rent	15,000	--
Sales Returns	10,000	--
Bad Debt Written off	7,000	--
Creditors	--	1,20,000
Drawings	24,000	--
Provision for Bad Debts	--	6,000
Printing & Stationery	8000	--
Insurance	12,000	--
Opening Stock	50,000	--
Office Expenses	12,000	--
Provision for Depreciation	--	2,000
Total	5,58,000	5,58,000

Adjustments:

(a) Depreciation Furniture by 10% on original cost

(b) A provision for doubtful 5% on Sundry Debtors

(c) Salaries for the month of March, 2010 amounting to Rs.1000 were unpaid

(d) Insurance amounting to Rs.2, 000 is prepaid

(e) Stock used for private purpose Rs.6, 000

(g) Closing stock Rs.60, 000

11. Prepare a Bank Reconciliation statement from the following details as on 31st March 2009 and find out the balance as per pass book.

a) Balance as per cash book Rs. 1,000
b) Cheques paid in but not cleared Rs. 200
c) Cheques paid in but dishonoured Rs. 300
d) Cheques drawn but not cashed Rs. 2,000
e) Interest credited in Pass book only Rs. 100
f) Bank charges Rs.150 entered in cash book Rs. 510
g) Cash book overcast by Rs.500

12. Why are final accounts prepared?.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

(AUTONOMOUS)

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Commerce	CACC -101G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – I

Fundamentals of Accounting - I

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction to Accounting	Subsidiary Books	Trial balance& Rectification of Errors	Bank Reconciliation statement	Final Accounts
5 Marks questions	1	1	1	1	---
15 Marks questions	1T+1P	1P	1P	2P	1T+1P
Weight age	35	20	20	35	30

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Commerce	CBOM-102 CC	2020-2021	I B.Com (CA)

SEMESTER – I

SYLLABUS

Business Organization and Management

Unit-I: Introduction: Concepts of Business, Trade , Industry and Commerce – Features of Business - Trade Classification - Aids to Trade – Industry – Classification – Relationship among Trade, Industry and Commerce.

Unit-II: Forms of Business Organizations: Forms of Business Organization: Sole Proprietorship, Joint Hindu Family Firm, Partnership firm, Joint Stock Company, Cooperative Society

Unit-III:Company Incorporation: Preparation of important Documents for incorporation of Company – Memorandum of Association – Articles of Association – Differences Between Memorandum of Association and Articles of Association - Prospectus and its contents –

Unit-IV: Management: Process of Management Planning; Decision-making; Fayol's 14 Principles of Management, Administration VS Management

Unit-V: Functional Areas of Management: Production - Manufacturing - Make in India - Marketing Management: Marketing Concept; Marketing Mix; Product Life Cycle; Pricing Policies and Practices.

Reference Books:

1. Kaul, V.K., Business Organization and Management, Pearson Education, New Delhi.
2. Chhabra, T.N., Business Organization and Management, Sun India Publications, New Delhi.
3. Koontz and Weihrich, Essentials of Management, McGraw Hill Education.
4. Basu, C. R., Business Organization and Management, McGraw Hill Education.
5. Jim, Barry, John Chandler, Heather Clark; Organization and Management, Cengage Learning.
6. Allen, L.A., Management and Organization; McGraw Hill, New York.

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Commerce	CBOM-102G/ CC	2020-2021	I B.Com (Gen&Comp)

SEMESTER – I
MODEL PAPER

Business Organization and Management

Time: 3 hrs Max. Marks: 70

SECTION - A

I. Answer any TWO of the following 2X 5 = 10

1. Comparison between business, profession and Employment.
2. Explain the partnership deed?
3. Write about Prospectus.
4. Administration VS Management

SECTION - B

II. Answer any FOUR of the following 4 X 15= 60

5. Define business and explain the features of business.
6. Write the advantages and disadvantages of Sole Trading.
7. Distinguish between Public limited company and private limited company
8. Write about Memorandum of Association
9. Define Planning and Explain its Characteristics
10. Explain HenryFayol's Principles of Management
11. What are the required Documents for in-corporation of Company
12. Write the functions of marketing management

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Commerce	CBOM-102G/ CC	2020-2021	I B.Com (Gen&Comp)

SEMESTER – I

Business Organization and Management

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
5Marks Questions	1	1	1	1	-----
15 Marks Questions	1	2	2	2	1
Weight age	20	35	35	35	15

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Commerce	CBEN -103G/ C	2020-2021	*I.B.Com(gen)*

SEMESTER – I SYLLABUS

Business Environment

Unit-I: Overview of Business Environment

Business Environment – Meaning – Macro and Micro Dimensions of Business Environment – Economic – Political – Social – Technological – Legal – Ecological – Cultural – Demographic – Changing Scenario and implications – Indian Perspective – Global perspective

.

Unit-II: Economic Growth

Meaning of Economic growth – Factors Influencing Development – Balanced Regional Development.

Unit-III: Development and Planning

Rostow's stages of economic development - Meaning – Types of plans – Main objects of planning in India – NITI Ayog and National Development Council – Five year plans.

Unit-IV;Economic Policies

Economic Reforms and New Economic Policy – New Industrial Policy – Competition Law – Fiscal Policy – Objectives and Limitations – Union budget – Structure and importance of Union budget – Monetary policy and RBI.

Unit-V : Social, Political and Legal Environment

Concept of Social Justice - Schemes - Political Stability - Legal Changes.

Suggested Readings:

1 Rosy Joshi and Sangam Kapoor : Business Environment.

2 Francis Cherunilam : Business Environment.

3 S.K. Mishra and V.K. Puri : Economic Environment of Business.

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Commerce	CBEN -103G/C	2020-2021	*I.B.Com(gen)*

SEMESTER – I

Business Environment

MODEL PAPER

Time: 3 hrs Max. Marks: 70

SECTION - A

I. Answer any TWO of the following 2 X 5 = 10

1. What is meant by Business Environment? And explain the Importance of Business Environment?

2.Explain the concept of Economic Growth

3.What are the types of planning?

4. Explain the objectives of Fiscal policy?

SECTION - B

II.Answer any FOUR of the following 4 X 15 = 60

5. Explain the Macro and Micro Dimensions of Business Environment

6. Explain the factors influencing Economic development?

7. Review the progress of five year plans in India?

8. What are the Rostow"s stages of Economic development?

9. Explain new Industrial policy in India?

10. What is meant by Budget? And state the importance of union budget and what are the Important aspects in union budget?

11. Explain the causes for region imbalances?

12. Explain different Government schemes about social welfare?

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Commerce	CBEN -103G/ C	2020-2021	*I.B.Com(gen)*

SEMESTER – I

Business Environment

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
5Marks Questions	1	1	1	1	-----
15Marks Questions	1	2	2	2	1
Weight age	20	35	35	35	15

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
(AUTONOMOUS)
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Commerce	*CIP-102G/C C*	*2020-2021*	*I.B.Com(gen&comp)*

SEMESTER –I SYLLABUS:

INSURANCE PROMOTION
Skill Development Course

Unit-I: Introduction of Insurance - Types of insurances. Growth of Insurance sector in India - Regulatory mechanism (IRDA) - Its functions

Unit-II: Life Insurance plans. Health insurance plans. Products and features. Contents of documents– Sales Promotion methods - Finding prospective customers –Counselling – Helping customers in filing - Extending post-insurance service to customers.

Unit- III : General Insurance - It's products (Motor, Marine, Machinery, Fire, Travel and Transportation) and features. Contents of documents. Dealing with customers – Explaining Products to Customers - Promoting Customer loyalty. Maintenance of Records.

Reference books:

1. Principles of Insurance, Himalaya publishing House
2. Principles and Practice of Insurance,
3. Fundamentals of insurance,
4. Life and General Insurance Management,
5. Financial services, Tata McGraw hill
6. Insurance Principles and Practices, Sultan Chand &Son

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Commerce	*CIP-102G/C C*	*2020-2021*	*I.B.Com(gen&comp)*

SEMESTER –I ***Model Paper***

INSURANCE PROMOTION
Skill Development Course

DURATION: 2 HOURS **SECTION – A Max:50**

ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS (4x5=20M)

1. **Define Insurance?**
2. **Explain about IRDA**
3. **Endowment plan**
4. **What are the advantages of Health Insurance.**
5. **Write about Sales Promotion methods**
6. **Reserve for unexpired risks.**
7. **What is marine Insurance**
8. **Customer loyalty**

SECTION – B

ANSWER ANY THREE OF THE FOLLOWING QUESTIONS (3x10=30M)

9. Explain different types of Insurance?

10. What are the differences between General insurance and life insurance?

11. What are the differences between Endowment policies and Term policies.

12. Explain post insurance services to customer.

13. What are the features of General insurance?

14. Explain different types of General insurance.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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Commerce	*CIP-102G/C C*	*2020-2021*	*I.B.Com(gen&comp)*

SEMESTER –I **Guidelines**

INSURANCE PROMOTION
Skill Development Course

Marks	UNIT-I	UNIT-II	UNIT-III
	Introduction of Insurance	Life Insurance plans.	General Insurance
5Marks	2	3	3
10Marks	2	2	2
Weight age	30	35	35

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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Commerce	*CCA-301G/C C*	*2020-2021*	*II.B.Com(gen/comp)*

SEMESTER –III *SYLLABUS*

Corporate Accounting

Unit -I:
Accounting for Share Capital - Issue, forfeiture and reissue of forfeited shares-concept &process of book building - Issue of rights and bonus shares - Buyback of shares (preparation of Journal and Ledger).

Unit-II:
Profits prior to incorporation -Nature –need- ascertainment - treatment of profit /loss.(Includingproblems).

Unit –III:

Valuation of Goodwill and Shares: Need and methods - Normal Profit Method, Super Profits Method – Capitalization Method - Valuation of shares - Need for Valuation – Methods of Valuation - Net assets method, Yield basis method, Fair value method (including problems).

UNIT – IV:
Company Final Accounts: Preparation of Final Accounts – Adjustments relating to preparation of final accounts – Profit and loss account and balance sheet – Preparation of final accounts (including problems).

Unit –V
Provisions of the Companies Act, 2013 relating to issues of shares and debentures - Book Building- Preparation of Balance Sheet and Profit and Loss Account – Schedule-III.

Reference Books:
1. Corporate Accounting – Haneef & Mukherji,
2. Corporate Accounting – RL Gupta & Radha swami
3. Corporate Accounting – P.C. Tulsian

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Commerce	*CCA-301G/C C*	*2020-2021*	*II.B.Com(gen/comp)*

SEMESTER –III

Corporate Accounting

Model Question Paper

Time: 3 hours Max. Marks: 70

SECTION - A

I. Answer any TWOof the following questions 2 x 5 =10M

1. Explain the re-issue of Forfeited shares
2. How do you Ascertain Profits Prior to in Corporation.
3. What are the factors considered while calculating goodwill?
4. Book building

SECTION - B

II. Answer any FOUR of the following questions 4 x15 =60M

5. Chandana Co. Ltd. Offered to pay the public 40,000 equity shares of rs.100 each at a premium of Rs.10 per share .The payment was as follows.

	Rs.
On Application	20
On Allotment	40 (including premium)
On first call	25
On final call	25

Applications received total for 70,000 shares, applications for 20,000, shares were rejected. The directors made both the calls. One share holder holding 1,000 shares failed to pay the two calls as a consequent his shares were forfeited.400 of these shares were reissued as fully paid at Rs.80 per share. Pass journal entries and prepare balance sheet on the basis of information given above.

6 A limited company purchased a business on 1st April2012. The company obtained certificate of commence business on 31st July 2012. Following particulars are given for the year ending 31st March 2013,ascertain profit prior to incorporation and divisible profits.

a) Total sales up to 30st March 2013 Rs.10,00,000.sales from 1st April 2012 to 31st July 2012Rs.2,50,000
b) Gross profit for the year Rs.2, 12,000
c) Expenses debited to profit and loss account

Particulars	Rs.	Particulars	Rs.
Rent	6,000	Depreciation on machinery	30,000
Insurance	1,500	Commission on sales	12,600
Salaries	27,000	Bad debts (Rs.850related	
Selling expenses	9,000	to prior to incorporation)	2400
Advertisement	8000	General expenses	4800
Interest on		Directors fees	2600
Debentures	4,000	Preliminary expenses	7200
Audit fees	1,200	Interest paid to vendors	
Printing andStationery	5,000up to 1st Sept.2012		4,200

7. A business concern had earned profits for the past 3years as follows

2007 –Rs50, 000 2008-Rs, 60, 000, 2009 –Rs70000.
Average capital employed in the business Rs.4, 00,000.

Reasonable rate of return expected in a similar business is 10%

From the above, calculate the value of goodwill under,

a) 2years purchase of the average profits of last three years
b) four years purchase of super profits the basis of average profits of previous three years

8. The Balance sheet of Deepak Ltd. as on 31.03.2014 was as under.

Liabilities.	Rs.	Assets.	Rs.
4,000Equity shares		Land and buildings	2,50,000
ofRs.100each	4,00,000	Machinery	1,20,000
General Reserve	50,000	Investment at cost	70,000
Profit and loss Account	50,000	(market value Rs.60,000)	
Creditors	90,000	Debtors	100,000
Provision for taxation	40,000	Stock	80,000
		Cash at bank	10,000
	6,30,000		6,30,000

Additional Information:

a) Land and Buildings and machinery are valued at Rs.2,40,000 and Rs.95,000

b) Of the total debtors Rs.5, 000 are bad.

c) Good will is to be taken at Rs.50, 000

d) The normal rate of dividend declared by such type of companies is 15% on paid up capital

e) The average rate of dividend declared and paid by this company is 20% on its paid up capital. Calculate fair value of equity shares

9.The following Trial Balance has been extracted from the book of XYZ LTD .as on 31st march2014. You are required to prepare profit and loss Account and Balance sheet as on the date.

Debit Balance.	Rs.	Credit Balance	Rs.
Land and Buildings	34,000	Share capital	1,00,000
Furniture	6,000	General reserve	5,000
Plant &Machinery	15,000	10%debentures	40,000
Stock on 31st March 2001	75,000	Sundry Creditors	4,000
Salaries	25,000	Gross profit	75,000
Debtors	10,000	Interest on investments	1,000
5% Investments	20,000	Profit and loss Account-1ST April	35,000
Bank	5,000		
Advance Income tax	2,000		
Debentures interest	2,000		
Directors fee	7,000		
Rent ,rates and insurance	24,000		
Good will	35,000		
	2,60,000		2,60,000

1. Depreciate the following assets

Land and Buildings at 10% P.a. Plant and Machinery 8% P.a.

2. Provision for bad debts at6%.

3. The Director have recommended

(a) Transfer .Rs 3,000 to General Reserve Account.

(b)Equity dividend at 10% on the paid up capital.

(c)Provision for income tax for Rs 4,000.

10. Rajan Ltd. has the following items in the balance sheet

(a) 1,00,000 Equity shares of Rs. 50 each Rs.40 each
(b) General Reserves Rs.11,00,000
(c) Share Premium Rs.5,00,000
(d) Capital Reserve Rs.7,00,000

The company decided

1. To capitalise its general reserve

2. To convert the existing shares into fully paid up

3 To issue 20,000 bonus shares of Rs.50 each at a premium of Rs.10 per share out of share premium and Capital Reserve

Pass journal entries in the books of the company

11. What is a Share? Explain different types of Shares?

12. Explain the legal provisions relating to issue of Shares as per Companies Act 2013

Commerce	*CCA-301G/C C*	*2020-2021*	*II.B.Com(gen/comp)*

SEMESTER –III

Corporate Accounting

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Accounting for Share Capital	Profits prior to incorporation	Valuation of Goodwill and Shares:	Company Final Accounts:	Provisions of the Companies Act, 2013
5Marks	1	1	1	0	1
15Marks	1T+2P	1P	2P	1P	1T
Weight age	50	20	35	15	20

SEMESTER –III *SYLLABUS*

Business Statistics

Unit 1: Introduction to Statistics:
Definition, importance and limitations of statistics - Collection of data - Schedule and questionnaire–Frequency distribution – Tabulation -Diagrammatic and graphic presentation of data.

Unit 2: Measures of Central Tendency:
Characteristics of measures of Central Tendency-Types of Averages – Arithmetic Mean, Geometric Mean, Harmonic Mean, Median, Mode, Deciles, Percentiles, Properties of averages and their applications.

Unit 3: Measures of dispersion and Skewness:
Properties of dispersion-Range-Quartile Deviation –Mean Deviation-Standard Deviation-Coefficient of Variation-Skewness definition-Karl Pearson's and Bowley's Measures of skewness.

Unit 4: Measures of Relation:
Meaning and use of correlation – Types of correlation-Karlpearson's correlation coefficient –Spearman's Rank correlation-probable error

Unit 5: Analysis of Time Series & Index Numbers:
Components of Time series- Measurement of trend and Seasonal Variations – Index Numbers-Methods of Construction of Index Numbers – Price Index Numbers – Quantity Index Numbers –Tests of Adequacy of Index Numbers – Cost of Index Numbers-Limitations of Index Numbers

Suggested Readings:

1. Business Statistics Reddy, C.R Deep Publications.
2. Statistics-Problems and Solutions Kapoor V.K.

SEMESTER –III

Business Statistics

Model Question Paper

Time: 3 hours Max. Marks: 70

SECTION - A

I. Answer any TWO of the following questions $2 \times 5 = 10$ M

1. Explain the characteristics of Statistics.
2. What are the Required essential of a Good average
3. What is meant by Correlation?
4. Explain the features of Index Numbers?

SECTION - B

II. Answer any FOUR of the following $4 \times 15 = 60$ M

5. Explain the characteristics of a good average

6. Calculate Geometric Mean.

C.I	10-20	20-30	30-40	40-50	50-60	60-70
F	4	7	16	20	15	8

7. Calculate Mean deviation.

C.I	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50
F	8	10	12	15	10	7	8	5

8. Calculate Bowley's Skewness

X	6	12	18	24	20	16	6
F	4	7	9	18	15	10	5

9. Construct a Histogram.

Marks	325-350	350-375	375-400	400-425	425-450
No.of students	30	45	75	60	35

10. Calculate Karl Pearson's coefficient of correlation from the following.

A	44	80	76	48	52	72	68	56	60
B	48	75	54	60	63	69	72	51	57

.

11. From the following given data compute trend line by method of Least Squares.

Years (X)	2003	2004	2005	2006	2007
Y	4	11	17	20	26

12. From the following data given Find fishers Index Number.

Commodity	Base year		Current year	
	Price	Quantity	Price	Quantity
A	6	50	10	56
B	2	100	2	120
C	4	60	6	60
D	10	30	12	24
E	8	40	12	36

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SEMESTER –III

Business Statistics

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction to Statistics	Measures of Central Tendency	Measures of dispersion and Skewness	Measures of Relation	Analysis of Time Series & Index Numbers
5Marks	1	1	0	1	1
15Marks	1P	1P+1T	2P	1P	2P
Weight age	20	35	30	20	35

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Commerce	*CBTP-303G C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –III SYLLABUS

Banking Theory & Practice

Unit-I: Introduction
Meaning & Definition of Bank – Functions of Commercial Banks – Kinds of Banks -Central Banking Vs. Commercial Banking.

Unit-II: Banking Systems
Unit Banking , Branch Banking, Investment Banking- Innovations in banking – e-banking - Online and Offshore Banking , Internet Banking - Anywhere Banking - ATMs- RTGS.

Unit-III: Banking Development
Indigenous Banking - Cooperative Banks, Regional Rural banks, SIDBI, NABARD -EXIM Bank.

Unit-IV: Banker and Customer
Meaning and Definition of Banker and customer – Types of Customers - General Relationship and Special Relationship between Banker and Customer - KYC Norms.

Unit-V: Collecting Banker and Paying Banker
Concepts - Duties & Responsibilities of Collecting Banker – Holder for Value – Holder in Due Course – Statutory Protection to Collecting Banker - Responsibilities of Paying Banker - Payment Gateways.

Books for Reference
1. Banking Theory: Law &Practice : K P M Sundram and V L Varsheney
2. Banking Theory, Law and Practice : B. Santhanam; Margam Publications
3. Banking and Financial Systems : Aryasri
4. .Introduction to Banking : Vijaya Raghavan
5. Indian Financial System : M.Y.Khan
6. Indian Financial System : Murthy & Venugopal

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SEMESTER –III

BANKING THEORY& PRACTICE

Model Question Paper

Time: 3 hrs Max. Marks: 70

SECTION- A

I. Answer any TWO of the following questions 2 x 5= 10M

1. Industrial Bank
2. Offshore banking
3. Regional Rural Bank
4. KYC Norms

SECTION- B

II.Answer any FOUR of the following questions 4 x 15 = 60M

5. Describe the functions of commercial banks.
6. What are the various weapons of credit control available to R.B.I
7. Discuss the recent trends and innovations in banking system?
8. Elucidate the Merits and demerits of Branch Banking?
9. What are the functions of NABARD?
10. What are the special features of relationship between banker and customer?
11. Dicuss in detail the statutory protection granted to a collecting banker in India
12. Discuss the duties and liabilities of a paying banker.

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Commerce	*CBTP-303G C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –III

BANKING THEORY& PRACTICE

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Banking Systems	Banking Development	Banker and Customer	Collecting Banker and Paying Banker
5Marks	1	1	1	1	0
15Marks	2	2	1	1	2
Weight age	35	35	20	20	30

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Commerce	*CBL-501(U)*	*2020-2021*	*III B.Com(gen/comp)*

SEMESTER –V

SYLLABUS

Business Leadership

Unit-I: Introductory: Leadership - Traits, Skills and Styles- Leadership Development - Qualities of a Good Leader.

Unit-II: Decision-Making and Leadership: Leadership for Sustainability - Power, Influence, Impact - Leadership Practices - Organizations and Groups: Organizational Culture and Leadership - Leadership in Business Organizations

Unit-III: Special Topics: Profiles of a few Inspirational Leaders in Business – Jemshedji Tata - Aditya Birla - Swaraj Paul - L N Mittal - N R Narayana Murthy - Azim Premji, etc.

References:

1. Northouse, Peter G., Leadership: Theory and Practice, Sage Publications.
2. Daloz Parks, S., Leadership can be taught: A Bold Approach for a Complex World, Boston: Harvard Business School Press.
3. Drucker Foundation (Ed.), Leading Beyond the Walls, San Francisco: Jossey Bass.
4. Al Gini and Ronald M. Green, Virtues of Outstanding Leaders: Leadership and Character, John Wiley & Sons Inc.
5. S Balasubramanian, The Art of Business Leadership – Indian Experiences, Sage Publications

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Commerce	*CBL-501(U)*	*2020-2021*	*III B.Com(gen/comp)*

SEMESTER –V

Model paper

Business Leadership

Time: 2 hrs Max. Marks: 50

SECTION- A

I. Answer any FOUR of the following questions 4 x 5= 20M

1. Leadership
2. Trait
3. Power
4. Influence
5. Aditya Birla
6. Azim Premji

SECTION- B

II. Answer any THREE of the following questions 3 x 10 = 30M

7. Explain the qualities of Good leader
8. Explain Different types of leader ship Practices

	UNIT-I	UNIT-II	UNIT-III

9. Explain the leadership in Business Organizations
10. Explain the Profiles of Jemshedji Tata
11. Explain the different Styles of Leadership
12. Explain the Profiles of Narayana Murthy

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Commerce	*CBL-501(U) G/ C C*	*2020-2021*	*III B.Com(gen/comp)*

SEMESTER –V

Business Leadership

Guidelines to the paper setter

	Introduction	Decision making and Leadership	Special Topics
5 Marks questions	2	2	2
10 Marks questions	2	2	2
Weight age	30	30	30

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Commerce	*CCOA-502 G/C C*	*2020-2021*	*III B.Com(gen/comp)*

SEMESTER –V

SYLLABUS

Cost Accounting

Unit-I:Introduction: Distinguish between Financial Accounting, Cost Accounting and management accounting - Cost Concepts and Classification – Cost Centre and Cost Unit – Preparation of Cost Sheet.

Unit-II: Elements of Cost: Materials: Material control – Selective control, ABC technique – Methods of pricing issues – FIFO, LIFO, Weighted average, Base stock methods, choice of method(including problems).

Unit-III: Labour and Overheads: Labour: Control of labour costs – time keeping and time booking – Idle time –Methods of remuneration – labour incentives schemes - Overheads: Allocation and apportionment of overheads – Machine hour rate.

Unit-IV: Methods of Costing: Job costing – Process costing - treatment of normal and abnormal process losses – preparation of process cost accounts – treatment of waste and scrap, joint products and by products (including problems).

Unit -V: Costing Techniques: Marginal Costing – Standard costing – Variance Analysis (including problems).

References:

1. S.P. Jain and K.L. Narang – Advanced Cost Accounting, Kalyani Publishers, Ludhiana.
2. M.N. Aurora – A test book of Cost Accounting, Vikas Publishing House Pvt. Ltd.
3. S.P. Iyengar – Cost Accounting, Sultan Chand & Sons.
4. Nigam & Sharma – Cost Accounting Principles and Applications, S.Chand & Sons.
5. S.N .Maheswari – Principles of Management Accounting.
6. I.M .Pandey – Management Accounting, Vikas Publishing House Pvt. Ltd.

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SEMESTER –V

Model paper

Cost Accounting

TIME -3hrs SECTION-A Max. Marks: 70

I. Answer any TWO of the following: 2x5=10M

1. Define Cost Accounting? Explain its Advantages.
2. Explain about FIFO Method .
3. What are the essential features of a good wage system?
4. Explain about BEP Analysis.

SECTION-B

II. Answer any FOUR of the following: 4x15=60M

5. Distinguish between cost accounting and financial accounting

6. From the following particulars you are required to prepare a cost sheet for the year ending31.12.2009.

	Rs.
Stock of finished goods 31-12-2008	72,800.
Stock of raw materials on 31-12-2008	33,280.
Purchase of raw materials	7,59,200.
Wages	5,16,880.
Sales	15,39,200.
Stock of finished goods on 31-12-2009	78,000.
Stock of Raw materials on 31-12-2009	35,360
Works overhead charges	1,29,220
Office overheads	70,161

The company is intending to send a quotation for a large plant. The estimated material cost is Rs. 52,000 and wages Rs. 31,200. The quotation is to make a profit of 20% on selling price. Show the amount of quotation price.

7. X Ltd has purchased and issued the material in the following order

Jan	1	Purchased	300 units @Rs.3/-per units
	4	purchased	600 units@Rs.4/-per units
	6	Issue	500 units
	10	Purchased	700 units@Rs.4/ per units
	15	Issue	800 units
	20.	purchased	300 units @Rs.5/per units
	23.	issue	100 units

Ascertain the quantity of closing stock as on 31st January and state what will be its value (in each case) if issues are made under the First in first out method:

8. From the following information relating to a worker. Calculate which of the following methods of wage payment is beneficial to the worker:

(a)Time rate
(b)Piece rate
(c)Halsey plan.
(I) Standard Time in a week 45 hrs
(ii) Standard weekly production 450 units.
(III) Actual time taken by the worker 40hrs.
(Iv) Piece rate Rs.2 per units
(v)Hourly rate Rs.25.

9. Product x is obtained after it is processed through three distinct process. The following cost information is available for the operations:

particulars	Total	I	II	III
Material	5,625	2,600	2,000	1,025
Direct wages	7,330	2,250	3,680	1,400
Production over heads	7,330	_	_	_

500 units at Rs.4per unit were intro ducted in process .production over head to be distributed at 100% on Direct wages

The actual output and normal loss of the respective processes are:

	Output unit	Normal loss on input	Value of scrap per unit
Process-I	450	10%	Rs.2
Process-II	340	20%	Rs.4

Process-III	270	25%	Rs.5

There is no stock or work-in-progress in any process.

Prepare process accounts.

10. From the following information pertaining to the two years, calculate.

(a)P/V ratio

(b) Amount of sales to earn profit of Rs40,000

(c) profit on sales Rs.1,20,000.

Years	Sales	Profit
1996	1,40,000	15,000
1997	1,60,000	20,000

11. You are required to calculate from the following data:

(a) Material price variance
(b) Material cost variance
(c) Material usage variance

Standard material cost to produce one tone of chemical "P" is

500 kg of material X @Rs.15 per kg.
750 kg of material Y @Rs.10 per kg.
1000 kg of material Z @Rs.12 per kg.

During the period 100 tons of Chemical P wear produced from the usage of

6000 kg of material X@Rs.14 per kg.
8000 kg material Y @Rs .12 per kg.
10,500 kg materialZ@Rs.15 per kg.

12. The Costing records of Gopi Engineering Company for job 777 reveals Materials Rs 6,015

Wages: Dept .X : 100 Hours @ Rs 4.50 per hour

Dept .Y : 65 Hours @ Rs 3.00 per hour

Dept .Z : 35 Hours @ Rs 7.50 per hour

Over head expenses for these three departments were estimated as follows.

Variable overheads :

Dept .X : Rs 10,000 for 2,500 labour hours

Dept .Y Rs 6,000 for 2,000 labour hours

Dept .Z : Rs 4,000 for 500 labour hours

Fixed overheads: estimated at Rs 40,000 for 10,000 Normal Working Hours .your are required to calculate the cost of job No 777.

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Cost Accounting

SEMESTER –V Guidelines to the paper setter

	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Elements of Cost	Labour and Over heads	Methods of Costing	Costing Techniques
5 Marks questions	1	1	1	0	1
15 Marks questions	2(1T+1P)	1	1	2	2
Weight age	35	20	20	30	35

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Commerce	*CTAX-503C C*	*2020-2021*	*III.B.Com(comp)*

SEMESTER –V

TAXATION

SYLLABUS

Unit-I: Introduction: Objectives - Principles of Taxation - Brief History - Basic Concepts; Capitaland Revenue; Basis of Charge - Exempted Incomes - Residential Status – Incidence of Taxation.

Unit-II: Direct and Indirect Taxes – Service Tax – VAT – Central Sales Tax – Latest Developments.

Unit-III: Computation of income under different heads: Income from Salary; Income from HouseProperty; Deductions u/s 80C to 80U - Income from Capital Gains; Income from Other Sources(simples problems).

Unit-IV: Taxation System in India: Objectives; Tax Holiday; Modes of Tax Recovery (Section 190 and 202); Payments and Refunds; Filing of Returns.

Unit-V: Tax Planning: Tax Avoidance and Tax Evasion; Penalties and Prosecutions; Income TaxAuthorities.

References:

1. Vinod K. Singhania Direct Taxes - Law and Practice, Taxman Publication.
2. B.B. Lal: Direct Taxes, Konark Publisher (P) Ltd.
3. Bhagwati Prasad: Direct Taxes – Law and Practice, Wishwa Prakashan.
4. Dr. Mehrotra and Goyal: Direct Taxes – Law and Practice, Sahitya Bhavan Publication.

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Commerce	*CTAX-503C C*	*2020-2021*	*III.B.Com(comp)*

SEMESTER –V *TAXATION*

Model Question Paper

Time: 3 Hrs Max. Marks: 70

SECTION – A

I. Answer any TWO of the following 2X 5 = 10M

1. Explain the principle of Taxation
2. What is VAT
3. U/S 80c
4. Tax Evasion

SECTION – B

II. Answer any Four of the following 4 x15 =60M

5. Give 10 Examples of Incomes Exempted u/s 10.

6. What is Service tax ? Explain different taxable service

7. From the following particulars of sriram, a manger of a firm, compute his taxable income from salary for the A.Y 2017-18

   a) Basic pay Rs 6000 P.M

   b) Dearness allowance Rs 400 P.M

   c) Own contribution to R.P.F Rs 3000 P.M

   d)Employee's contribution to R.P.F Rs 3000 P.M

   e) Interested credited to R.P.F 13% P.A Rs 4680

   f) House rent allowance Rs 7200P.M rent paid in Delhi Rs5000 P.M

   g) Medical allowance Rs100 P.M

   h) Entertainment allowance Rs. 300 P.M

8. Compute income from House property for the assessment year 2016-17

Municipal valuation 16,000 P A. Fair rent 1,80,000 P.A ,Standard rent 1,50,000 P.A , Rent received 1,72,000 P A Municipal taxes 10% Municipal taxes are borne by the owner. Fire insurance Rs 3000, Interest on money borrowed for construction of House property paid Rs .36, 000 The House is let-out throughout the previous year.

9. Mr. Prasad submits the following particulars about sale of assets during 2016-17.

Particulars	JewelleryPlot	Gold	
Sale Price	12, 00,000	50, 80,000	10,20,000
Expenses on sale	10,000	36,000	Nil
Cost of Acquisition	90,000	4, 20,000	1,30,000
Year of Acquisition	1989-90	1986-87	2003-04
CII	172	140	463

He has purchased a house for Rs.27, 00,000 on 1-3-2017.

Calculate the amount of taxable capital gain. CII for 2016-17 is:272

10 .Explain the Modes of Tax Recovery

11. Difference between Tax Planning and Tax Evasion

12. Mention the different Kinds of Incomes Specifically mentioned as Chargeable to tax under the head "Income from Other Sources

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
(AUTONOMOUS)
(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	*CTAX-503C C*	*2020-2021*	*III.B.Com(comp)*

SEMESTER –V *TAXATION*

Guidelines to the paper setter

	Introduction	Direct and Indirect taxes	Computation of income under different heads	Taxation System in India	Tax Planning
5Marks	1	1	1	0	1
15Marks	1T	1T	3P+1T	1T	1T
Weight age	20	20	65	15	20

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Commerce	CGST-503G/C	*2020-2021*	*III.B.Com(gen)*

GOODS &SERVICE TAX FUNDAMENTALS

SEMESTER –V

SYLLABUS

GOODS &SERVICE TAX FUNDAMENTALS

Unit I:Introduction: Overview of GST - Concepts – Limitations of VAT – Need for Tax Reforms - Justification for introduction of GST - Shortcomings and advantages at the Central Level and State Level on introduction of GST- Process of Introduction of GST - Constitutional Amendments.

Unit II: GST:Principles – Models of GST: Austrlian, Candian, Kelkar-Shah – BagchiPoddar -Comprehensive structure of GST model in India: Single, Dual GST– Transactions covered under GST.

Unit-III:Taxes and Duties: Subsumed under GST - Taxes and Duties outside the purview of GST: Tax on items containing Alcohol – Tax on Petroleum products - Tax on Tobacco products - Taxation of Services

Unit-IV: Inter-State Goods and Services Tax: Major advantages of IGST Model – Interstate Goods and Service Tax: Transactions within a State under GST – Interstate Transactions under GST - Illustrations.

Unit-V: Time of Supply of Goods & Services: Value of Supply - Input Tax Credit – Distribution of Credit -Matching of Input Tax Credit - Availability of credit in special circumstances- Cross utilization of ITC between the Central GST and the State GST.

References:

1. Goods and Services Tax in India – Notifications on different dates.
2. GST Bill 2012.
3. Background Material on Model GST Law, Sahitya Bhawan Publications, Hospital Road, Agra - 282 003.
4. The Central Goods and Services Tax Act, 2017, NO. 12 OF 2017 Published by Authority, Ministry of Law and Justice, New Delhi, the 12thApril, 2017.

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Commerce	CGST-503G/C	*2020-2021*	*III.B.Com(gen)*

GOODS &SERVICE TAX FUNDAMENTALS

SEMESTER –V

MODEL PAPER

TIME -3hrs *Max. Marks: 70*

SECTION-A

I. Answer any TW0 of the following 2x5=10M

1. What is GST?
2. Dual GST

3. Subsumed under GST

4 .Central GST

SECTION-B

II. Answer any FOUR of the following 4x15=60M

5. What are the advantages of Goods and Services Tax

6. What is the Comprehensive Structure of GST in India?

7. Write about Australian Model of GST

8. Explain the Taxes and Duties outside the Purview of GST

9. What are the advantages of IGST?

10. Explain about interstate transactions under GST

11. What is Time supply of goods and services?

12. What is input tax credit and explain it with suitable examples.

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Commerce	CGST-503G/C	*2020-2021*	*III.B.Com(gen)*

GOODS &SERVICE TAX FUNDAMENTALS

SEMESTER –V

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Inrtoduction	GST:Principles	Taxes and Duties	Inter-State Goods and Services Tax	Time of Supply of Goods & Services
5Marks	1	1	1	0	1
15Marks	1	2	1	2	2
Weight age	20	35	20	30	35

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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Commerce	*CCG-504G/C C*	*2020-2021*	*III.B.Com(gen/comp)*

SEMESTER –V

SYLLABUS

Commercial Geography

Unit –I: The Earth: Internal structure of the Earth – Latitude – Longitude – Realms of the Earth –Evolution of the Earth – Environmental pollution - Global Warming - Measures to be taken to
protect the Earth.

Unit -II: India – Agriculture: Land Use - Soils - Major crops – Food and Non-food Crops – Importance of Agriculture – Problems in Agriculture – Agriculture Development.

Unit -III: India – Forestry: Forests – Status of Forests in Andhra Pradesh – Forest (Conservation)Act, 1980 – Compensatory Afforestation Fund (CAF) Bill, 2015 - Forest Rights Act, 2006 and its Relevance – Need for protection of Forestry.

Unit -IV: India – Minerals and Mining: Minerals – Renewable and non Renewable – Use of Minerals – Mines – Coal, Barites, etc. – Singareni Coal mines and Mangampeta Barites – Districtwise Profile.

Unit-V: India – Water Resources – Rivers: Water resources - Rationality and equitable use of water – Protection measures - Rivers - Perennial and peninsular Rivers - Interlinking of Rivers -Experience of India and Andhra Pradesh.

References:

1. Shabiar Ahmad; Quazi ,Natural Resource Consumption and Environment Management, APH Publishing Corporation.
2. Tarachand, Economic and Commercial Geography of India, Vikas Publishing House.
3. Dr. S. Sankaran, Commercial Geography, Margam Publications, Chennai.
4. C. B. Memoria, Commercial Geography, Lal Agarwal & Co.

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Commerce	*CCG-504G/C C*	*2020-2021*	*III.B.Com(gen/comp)*

SEMESTER –V

Model paper

Commercial Geography

Time: 3 hrs Max. Marks: 70

SECTION- A

I. Answer any Two of the following questions 2 x 5= 10M

1. Global warming
2. Non-food crops
3. Singareni Coal Mines

4. Krishna River

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

5. Explain the internal structure of the Earth
6. What are the measures to be taken to protect the Earth
7. Explain about different types of soils.
8. Explain forest conservation Act 1980.
9. Describe the need for protection of forests
10. Explain renewable and non renewable minerals
11. Explain the importance of interlinking of rivers
12. What are the problems facing by the farmers in India?

	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V

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Commerce	*CCG-504G/C C*	*2020-2021*	*III.B.Com(gen/comp)*

SEMESTER –V

Commercial Geography

Guidelines to the paper setter

	The Earth	India-Agriculture	India-Forestry	India-Minerals and Mining	India-Water resources-Rivers
5 Marks questions	1	1	0	1	1
15 Marks questions	2	2	2	1	1
Weight age	35	35	30	20	20

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Commerce	*CCB 505CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –V

SYLLABUS

Central Banking

Unit-I: Introduction: Evolution and Functions of Central Bank - Development of Central Banks in Developed and Developing countries - Trends in Central Bank Functions.

Unit-II: Central banking in India: Reserve Bank of India - Constitution and Governance, Recent Developments, RBI Act. - Interface between RBI and Banks.

Unit-III: Monetary and Credit Policies: Monetary policy statements of RBI - CRR - SLR – Repo Rates - Reverse Repo Rates - Currency in circulation - Credit control measures.

Unit-IV: Inflation and price control by RBI: Intervention mechanisms - Exchange rate stability -Rupee value - Controlling measures.

Unit-V: Supervision and Regulation: Supervision of Banks - Basle Norms, Prudential Norms, Effect of liberalization and Globalization - Checking of money laundering and frauds.

References:

1. Reserve Bank of India Publication, Functions and Working of the RBI.
2. Vasant Desai, Central Banking and Economic Development, Himalaya Publishing.
3. S. Panandikar, Banking in India, Orient Longman.
4. Reserve Bank of India Publication, Report on Trends and Progress of Banking in India.
5. Annual Reports of Reserve Bank of India.
6. Rita Swami, Indian Banking System, International Publishing House Pt. Ltd..

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Commerce	*CCB 505CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –V

Model paper

Central Banking

Time: 3 hrs Max. Marks: 70

SECTION- A

I. Answer any TWO of the following questions 2 x 5= 10M

1. Evolution of Central Bank

2. RBI Act 1934
3. Statutory liquidity Ratio
4. Exchange Rate

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

5. Describe the functions Central Bank.
6. Explain the differences between RBI and Commercial banks
7. State the Role of RBI in Economic Development
8. What are the various weapons of credit control available to RBI
9. What is Cash Reserve Ratio? Explain its importance
10. Bring out Clearly the Exchange Control Function of the RBI
11. Explain Basle Norms and Prudential Norms.
12. Explain the Checking of Money laundering and frauds.

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Commerce	*CCB 505CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –V

Guidelines to the paper setter

Central Banking

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Central banking in India	Monetary and Credit policies	Inflation and price control by RBI	Supervision and Regulation
5Marks	1	1	1	1	0
15Marks	1	2	2	1	2
Weight age	20	35	35	20	30

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Commerce	*CRC-506 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –V

SYLLABUS

Rural and Farm Credit

Unit-I: Rural Credit: Objectives and Significance of Rural credit - Classification of rural credit -General Credit Card (GCC) – Financial Inclusion - Rupay Card.

Unit-II: Rural Credit Agencies: Institutional and Non-institutional Agencies for financing agriculture and Rural development - Self-Help Groups (SHG) - Financing for Rural Industries.

Unit-III: Farm Credit: Scope - Importance of farm credit - Principles of Farm Credit -Types-Cost of Credit - - problems and remedial measures - Kisan Credit Card (KCC) Scheme.

Unit-IV: Sources of Farm Credit: Cooperative Credit: PACS - APCOB - NABARD SLBC-Lead Bank Scheme - Role of Commercial and Regional Rural Banks - Problems of recovery and over dues.

Unit-V: Farm Credit Analysis: Eligibility Conditions - Analysis of 3 R's (Return, Repayment Capacity and Risk-bearing Capacity) - Analysis of 3 C's of Credit (Character, Capacity and Capital) - Crop index reflecting use and farm credit - Rural Credit Survey Reports..

References:

1. National Bank of Agricultural and Rural Development (NABARD) Annual report.
2. Economic Survey, Government of India.
3. Rural Development, Sundaram I.S., Himalaya Publishing House, Mumbai.
4. Rural Credit in India, C.S.Rayudu, Mittal Publications.
5. Farm Credit and Co-operatives in India, Tiruloati V., Naidu. V T Naidu, Vora & Co. Pub. Ltd.

Project Work: Rural Creditsurvey/Banking operations/Credit Appraisal

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Commerce	*CRC-506 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –V
Model paper

Rural and Farm Credit

Time: 3 hrs Max. Marks: 70

SECTION- A

I. Answer any TWO of the following questions 2x 5= 10M

1. Rural Credit

2. Self Help Groups
3. Kisan Credit Card
4. Repayment Capacity

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

5. Describe the significance of Rural Credit

6. Explain Classification of Rural Credit

7. What are Institutional agencies for Financing Agricultural?

8. Explain advantages and disadvantages of Self-Help Groups

9. Explain the principles of Farm Credit

10. Write about NABARD

11. Explain the role of Regional Rural Banks in Farm Credit

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V

12. What is the Analysis of 3C'S of Credit?

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Commerce	*CRC-506 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –V

Guidelines to the paper setter

Rural and Farm Credit

	Rural Credit	Rural Credit Agencies	Farm Credit	Sources of Farm Credit	Farm Credit Analysis
5Marks	1	1	1	0	1
15Marks	2	2	1	2	1
Weight age	35	35	20	30	20

A.G& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

VUYYURU-521165, KRISHNA Dt., A.P.(Autonomous)

Accredited by NAAC with "A" Grade

2020-2021

DEPARTMENT OF COMMERCE

MINUTES OF BOARD OF STUDIES

EVEN SEMESTER

15-04-2021

Minutes of the meeting of Board of studies in Commerce for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at *11.30 A.M on 15-4-2021* through Zoom Meeting

Dr. K.Venkateswarlu ... ***Presiding***

Members Present:

1) (Dr.K.Venkateswarlu)	Chairman	Head, Department of Commerce AG & SG S Degree College of Arts & Science Vuyyuru
2) (Dr.R.Padmaja)	University Nominee	Asst. Professor Krishna University Machilipatnam
3) (Dr.K.Peddiraju)	Subject expert	Lecturer in Commerce, Govt. Degree College Razole
4) (Dr.G.Nagaraju)	Subject expert	Lecturer in Commerce Acharya Nagarjuna University Guntur.
5) (*Sri* V.Punnarao)	Member	General Manager K.C.P & IC Ltd Vuyyuru.
6) (*Sri* V.Balaji)	Member	Chartered Accountant Managing Partner Balaji V & Co Vuyyuru
7) (*Sri* N.Vasantha Rao)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru
8) (*Sri* V.Gopichand)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru
9) (*Sri* K.SekharBabu)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru
10) (Ms A.N.L Manohari)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru

Agenda of B.O.S Meeting:

1. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Commerce for the 2nd Semester as per the guidelines and instruction under CBCS prescribed by APSCHE from the Academic Year 2020-21.

2. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Commerce for the 4thSemester as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

3. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Commerce for the 6thSemester as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2020-21.

4. To recommend the Blue print of II, IV& VI Semesters of B.Com (General & Computers) for the Academic Year 2020-21.

5. To recommend the Teaching and Evaluation methods to be followed under CBCS

6. Any other suggestions regarding Certificate Course, Seminars, Workshops, Guest Lectures to be organized.

7. Any other matter.

RESOLUTIONS

1. Discussed and recommended to Continue the same syllabi, Model Question Papers and Guidelines for question paper setters in Commerce for the 2nd Semester of **I B.Com., (general & computer)** for the Academic year 2020-21.prescribed by APSCHE Banking Theory and Practice is introduced for I Semester

2. Discussed and recommended Some changes are required in syllabi, Model Question Papers and Guidelines for question paper setters in Commerce for the 4th Semester of **II B.Com., Anew Topic Consumer protection Act 1986 was incorporated in Unit -4 of Business laws (general & computer)** for the Academic year 2020-21.

3. Discussed and recommended that no changes are required in syllabi, but some minor changes are required in Model Question Papers and Guidelines for question paper setters in Commerce for the 6th Semester of **III B.Com., (general & computer)** for the Academic year 2020-21.
4. It is resolved to continue the same blue prints of II .IV. & VI Semesters of Degree B.Com **(general & computer)** for the Academic year 2020-21.
5. It is resolved to continue following Teaching and Evaluation methods for Academic year 2020-21.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector, display on U boards etc, for better understanding of concepts.

Evaluation of a student is done by the following procedure:

Internal Assessment (IA)III B.Com (General & Computers)

- Out of maximum 100 marks in each paper 30 marks shall be allocated for internal assessment B.Com (General & Computers). Out of these 30 marks, 20 Marks are allocated for announced tests (i.e. IA-1 & IA-2). Two announced tests will be

conducted and average of these two tests shall be deemed as the marks obtained by the student, 5 marks allocated on the basis of candidate's percentage of attendance and remaining 5 marks are allocated for the assignment. There is no minimum passing for IA.

Semester Examinations (SE)

- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration, with maximum 70 marks, irrespective of the number of credits allotted to it.
- Even though the candidate is absent for two IA exams/obtained zero marks, the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The pass mark shall be 28 out of 70 in the Semester end examination.
- The maximum marks for each Paper shall be 100.(Internal 30 + External 70)

6. Discussed and recommended to organize certificate course online/offline, seminars, Guest lectures, Online Examinations and Workshops to upgrade the knowledge of students for Competitive Examinations for the approval of the Academic Council.

Chairman

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Commerce	CACC -201G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – II

FUNDAMENTALS OF ACCOUNTING –II

OBJECTIVE:-To make the students acquire the knowledge in special type of Transactions and also the importance of negotiable instruments

Course outcomes:

CO 1: Able to discuss and describe various methods of depreciation and valuation of depreciation to depreciable assets.

CO 2: Able to discuss and describe different types of reserves and provisions and give accounting treatment for reserves and provisions in final accounts

CO 3: Grasp the accounting treatment in issue of negotiable instruments and also learn the techniques of accounting to bills

CO 4: Determine the useful life and value of the depreciable assets and maintenance of Reserves in business entities.

CO 5:Design an accounting system for different models of businesses at his own using the principles of existing accounting system.

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Commerce	CACC -201G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – II SYLLABUS

Fundamentals of Accounting – II

Unit-I: Depreciation
Meaning of Depreciation - Methods of Depreciation: Straight line – Written down Value – Sum of the Years' Digits - Annuity method (Problems).

Unit-II: Provisions and Reserves
Meaning – Provision vs. Reserve – Preparation of Bad debts Account – Provision for Bad and doubtful debts – Provision for Discount on Debtors – Provision for discount on creditors -Repairs and Renewals Reserve A/c (Theory only)

Unit-III: Bills of Exchange
Meaning of Bill –Features of bill – Parties in the Bill – Discounting of Bill – Renewal of Bill – Entries in the books of Drawer and Drawee (Problems).

Unit-IV: Consignment Accounts
Consignment - Features - Proforma invoice - Account sales – Del-credre Commission - Accounting treatment in the books of consigner and consignee - Valuation of closing stock - Normal and Abnormal losses (Problems).

Unit-V: Joint Venture Accounts
Joint venture - Features - Differences between Joint-venture and consignment – Accounting procedure - Methods of keeping records (Problems).

Reference Books:

1. R.L. Gupta & V.K. Gupta, Principles and Practice of Accounting, Sultan Chand

2. T. S. Reddy and A. Murthy - Financial Accounting, Margham Publications.

3. S.P. Jain & K.L Narang, Accountancy-I, Kalyani Publishers.

4. Tulsan, Accountancy-I, Tata McGraw Hill Co.

5. V.K. Goyal, Financial Accounting, Excel Books

6. T.S. Grewal, Introduction to Accountancy, Sultan Chand & Co.

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Commerce	CACC -201G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – II

Fundamentals of Accounting – II

MODEL PAPER

Time: 3 hrs Max. Marks: 70

SECTION - A

I. Answer any TWO of the following 2X 5 = 10

1. Define Depreciation? State the factors causing depreciation?
2. Briefly explain about special reserve?
3. What is bill of exchange? Explain its advantages briefly
4. What are the features of Consignment ?

SECTION - B

II.Answer any FOUR of the following 4 X 15= 60

5On 1st July 2001 company limited purchased second hand machinery for Rs. 20,000 and spends Rs. 3,000 on reconditioning and installing it. On 1st January, 2002 the firms purchases new machinery worth Rs. 12,000. On June 30th 2003 the machinery purchased on 01-01-2002 was sold for Rs. 8,000 and on 1st July 2003 fresh plant was installed at a cost of Rs. 15,000. The company writes off 10% on the original cost. The accounts are closed every year ending 31st December . Show the Machinery account for 3 years ending 31st December 2004.

6 What do mean by the terms of Provision and Reserve? Distinguish between Provision and Reserve

7 .Ram sold goodsworth Rs.2000 to rahim on August 1st ,2018 and he .draws a bill on Rahim for Rs. 2,000 payable after two months on 01-09-2018 ram endorses rahim's acceptance to Mahesh. On the due date the bill is honoured.Pass the necessary journal entries in the books of all the Parties.

8 1000 Toys were consigned by Anand & Co., of Visakhapatnam to Benerjee of Calcutta of an invoice of Rs. 300 each. Anand & Co., paid freight Rs. 20,000 and insurance Rs. 3,000. During the transit 100 toys were totally damaged by fire. Benerjee took delivery of the remaining toys and paid Rs. 21,000 as delivery charges and Rs. 7,800 as customs duty. Benerjee sent a bank draft to Anand& Co., for Rs. 1, 00,000 as advance payment and later sent an account sales showing that 800 toys were sold at Rs. 440 each. Benerjee is entitled to a commission of 5%. Prepare consignment account. Benerjee account and abnormal loss account in the books of Anand & Co., assuming that nothing has been recovered from the insurance company, for the damaged caused.

9 P and Q undertake jointly to contract a building for X Ltd, for a contract price of Rs. 80,000. The price was to be paid Rs. 60,000 in cash and the balance in shares of X ltd., A bank account was opened jointly, P and Q contributing Rs. 25,000 and Rs. 20,000. They agreed to share profit or loss in the proportion of 2/3 and 1/3rd respectively. The joint venture transactions were as under.

	Rs.
Materials purchased	38,000
Wages paid	22,000
Establishment expenses paid	4,000

The contract was completed and the price was received. The shares were sold for Rs. 17,000 Q took away the unused materials at Rs. 1,100.

Show that necessary accounts in the books of P.

10 A lease is purchased on 1st January 2011 for four years at a cost of Rs 20,000.its proposed to Depreciated the lease by the Annuity method charging interest @ 5% p.a. A reference to the annuity table shows that to depreciate Re 1 by annuity method over 4 years charging interest at 5%

p.a. one must write off a sum of Re. 0.2820. show the lease account for four years and also the relevant entries in the Profit and Loss Account.

11. What is Consignment? How does it differ from Sale?

12. What is meant by Joint venture? What are the differences between a Joint venture and Consignment?

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Commerce	CACC -201G/C C	2020-2021	*I.B.Com(gen/comp)*

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V

SEMESTER – II

Fundamentals of Accounting – II

Guidelines to the paper setter

	Depreciation	Provisions and Reserves	Bills of Exchange	Consignment	Joint venture
5 Marks questions	1	1	1	1	---
15 Marks questions	2P	1T	1P	1T+1P	1T+1P
Weight age	35	20	20	35	30

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Commerce	BE-202G/CC	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – II

Business Economics

Learning Outcomes:

At the end of the course, the student will able to;

CO 1: Describe the nature of economics in dealing with the issues of scarcity of resources.

CO 2: Analyze supply and demand analysis and its impact on consumer behaviour

CO 3: Evaluate the factors,such as production and costs affecting firmsbehaviour

CO 4: Recognize market failure and the role of government in dealing with those failures

CO 5: Apply economic models for managerial problems, identify their relationships, and formulate the decision making tools to be applied for business.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

(AUTONOMOUS)

(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	BE-202G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – II

Business Economics

Syllabus

Unit-I: Introduction:

Meaning and Definitions of Business Economics - Nature and Scope of Business Economics -Micro and Macro Economics and their Interface.

Unit-II: Demand Analysis

Meaning and Definition of Demand – Determinants to Demand –Demand Function -Law of Demand – Demand Curve – Exceptions to Law of Demand - Elasticity of Demand – Measurements of Price Elasticity of Demand

Unit – III: Production, Cost and Revenue Analysis:

Concept of Production Function – Law of Variable Proportion -Law of Returns to Scale - Classification of Costs -Break Even Analysis - Advantages

Unit-IV: Market Structure

Concept of Market – Classification of Markets -Perfect Competition – Characteristics – Equilibrium Price -Monopoly – Characteristics – Equilibrium Under Monopoly.

Unit-V: National Income:

Meaning – Definition – Measurements of National Income - Concepts of National Income - Components of National Income-Problems in Measuring National Income

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Commerce	BE-202G/C C	2020-2021	*I.B.Com(gen/comp)*

SEMESTER – II

Business Economics

MODEL PAPER

TIME -3hrs *Max. Marks: 70*

SECTION-A

I. Answer any TWO of the following 2x5=10M

1. Difference between Micro & Macro Economics
2. Demand function
3. Types of Cost
4. Features of Perfect competition

SECTION-B

II. Answer any FOUR of the following 4x15=60M

5. Explain the Nature and Scope of Business Economics.
6. Explain the Law of Demand and its Exceptions.
7. What is Elastic of Demand? Explain Measurement methods of Elastic of Demand
8. Explain the Law of Variable Proportions?
9. Write about Break Even analyses and its advantages
10. What is Market? Who the price is determined in the perfect Competition.
11. What is Monopoly?Explain the price is determined in the Monopoly
12. What is National Income? Explain the Measurement Methods of National Income

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SEMESTER – II

Business Economics

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction:	**Demand Analysis**	**Production, Cost and Revenue Analysis:**	**Market Structure**	**National Income:**
5Marks	1	1	1	1	---
15 Marks	1	2	2	2	1
Weight age	20	35	35	35	15

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Commerce	*CBTP-203G/C*	*2020-2021*	*I.B.Com(gen)*

SEMESTER –II *SYLLABUS*

Banking Theory & Practice

Objective:

1. To impart knowledge in banking and financial services and update the innovations of the current banking system like E-Banking advancements.

2. To equip the students with the knowledge of Reserve Bank,Narbad and KYC norms

3. To provide and enable the students with the basic knowledgerelating to general and special relationship between Banker and Customer

COURSE OUTCOMES:

CO1: To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI

CO2: To train and equip with the skills in banking and financial services and Innovations of the current banking systems like e-banking advancements

CO3: To familiarize the students with regard to working and importance of Regional Rural Bank and NABARD

CO4: To know about the general and special relationship between Banker and Customer and KYC norms.

CO5: Toget knowledge about Duties & Responsibilities of Collecting Banker and Responsibilities of PayingBanker - Payment Gateways.

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Commerce	*CBTP-203G/C*	*2020-2021*	*I.B.Com(gen)*

SEMESTER –II *SYLLABUS*

Banking Theory & Practice

Unit-I: Introduction

Meaning & Definition of Bank – Functions of Commercial Banks – Kinds of Banks -Central Banking Vs. Commercial Banking.

Unit-II: Banking Systems

Unit Banking , Branch Banking, Investment Banking- Innovations in banking – e-banking - Online and Offshore Banking , Internet Banking - Anywhere Banking - ATMs- RTGS.

Unit-III: Banking Development

Indigenous Banking - Cooperative Banks, Regional Rural banks, SIDBI, NABARD -EXIM Bank.

Unit-IV: Banker and Customer

Meaning and Definition of Banker and customer – Types of Customers - GeneralRelationship and Special Relationship between Banker and Customer - KYC Norms.

Unit-V: Collecting Banker and Paying Banker

Concepts - Duties & Responsibilities of Collecting Banker – Holder for Value – Holderin Due Course – Statutory Protection to Collecting Banker - Responsibilities of PayingBanker - Payment Gateways.

Books for Reference:

1. Banking Theory: Law & Practice : K P M Sundram and V L Varsheney
2. Banking Theory, Law and Practice : B. Santhanam; Margam Publications
3. Banking and Financial Systems : Aryasri
4. .Introduction to Banking : Vijaya Raghavan
5. Indian Financial System : M.Y.Khan
6. Indian Financial System : Murthy & Venugopal

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SEMESTER –II

BANKING THEORY& PRACTICE

Model Question Paper

Time: 3 hrs Max. Marks: 70

SECTION- A

I. Answer any TWO of the following questions 2 x 5= 10M

1. Industrial Bank
2. Offshore banking
3. Regional Rural Bank
4. KYC Norms

SECTION- B

II.Answer any FOUR of the following questions 4 x 15 = 60M

5. Describe the functions of commercial banks.
6. Write about R.B.I and Duties of RBI
7. Discuss the recent trends and innovations in banking system?
8. Elucidate the Merits and demerits of Branch Banking?
9. What are the functions of NABARD?
10. Write about SIDBI
11. What are the special features of relationship between banker and customer?
12. Discus in detail the statutory protection granted to a collecting banker in India

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Commerce	*CBTP-203G/C*	*2020-2021*	*I.B.Com(gen)*

SEMESTER –II

BANKING THEORY& PRACTICE

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Banking Systems	Banking Development	Banker and Customer	Collecting Banker and Paying Banker
5Marks	1	1	1	1	0
15Marks	2	2	2	1	1
Weight age	35	35	20	20	15

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Commerce	CASO -401G/C	2020-2021	*II.B.Com(gen/comp)*

SEMESTER – IV

ACCOUNTING FORSERVICE ORGANISATION

Objectives

1. To enable the students to understand company (Non profit originations) as per Sec (8) of Companies Act 2013 and prepare its final accounts

2. To provide and enable the students with the basic knowledge relating to the electricity, bank, and Insurance Companiesits typical terms and prepare financial statements of accounts

COURSE OUTCOMES

CO1: The students will acquire knowledge about non-profit organizations and how to prepare financial statements of non- profit organizations.

CO2: The students will be able to prepare financial statements electricity companies.

CO3: The students will be able to prepare financial statements banking companies.

CO4: The students will able to know how to ascertain the profit of Life insurance companies and to prepare valuation balance sheet.

CO5: The students will able to know how to ascertain the profit of General insurance companies and to calculate reserve for unexpired risks.

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Commerce	*CASO-401G/C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –IV *SYLLABUS*

Accounting for Service Organizations

Unit-I: Non-Trading/ Service Organizations:
Concept - Types of Service Organizations – Section (8) and other Provisions of Companies Act,2013.

Unit – II Electricity Supply Companies:
Accounts of Electricity supply companies: Double Accounting system – Revenue Account – Net Revenue Account – Capital Account – General Balance Sheet (including problems).

Unit – III - Bank Accounts
Bank Accounts – Books and Registers to be maintained by Banks – Banking Regulation Act, 1969 - Legal Provisions Relating to preparation of Final Accounts (including problems).

Unit -IV:Life Insurance Companies
Life Insurance Companies –Preparation of Revenue Account, Profit and Loss Account, Balance Sheet (including problems) – LIC Act, 1956.

Unit – V: General Insurance
Principles – Preparation of final accounts – with special reference to fire and marine insurance (including problems) – GIC Act, 1972.

Suggested Readings

1. Corporate Accounting – RL Gupta & M. Radha Swami
2. Corporate Accounting – P.C. Tulsian
3. Company Accounts : Monga, Girish Ahuja and Shok Sehagal

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Commerce	*CASO-401G/C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –IV

Accounting for Service Organizations

MODEL PAPER

TIME -3hrs *Max. Marks: 70*

SECTION-A

I. Answer any TWO of the following 2x5=10M

1. What are the features of Non-trading organisations
2. What is reasonable rate of return
3. Non banking assets
4. Reserve for Unexpired risk

SECTION-B

II. Answer any FOUR of the following 4x15=60M

5. Write the special features of double Account system?

6. The following is the Receipts and Payments Account of Indian Sports Club for the first year Ending as on 31-3-2014

Receipts	Rs.	Payments	Rs.

To Donations	5,00,000	By Pavilion constructed	4,00,0000
To Reserve fund	40,000	By Expenditure in connective with matches	9,000 600
(life and Entrance fee)			
To Receipts from matches	80,000	By Furniture	21,000
To Revenue receipts		By investment at cost	160000
Subscription	52,000	By Revenue Payments	
Locker Rent	500	Salaries	18,000
interest on securities	2400	Wages	6000
Sundries	3500	Insurance	3,500
		Telephone	2500
		Electricity	1100
		Sundry expenses	2100
		By Balance on hand	55200
	6,78,400		6,78,400

Additional infromation:

1. Donations received have to be Capitalised .
2. Outstanding bills for sundry expenses Rs.400
3. Wages unpaid for the year Rs.900
4. Salaries unpaid for the year Rs. 1700
5. Subscriptions outstanding for the year Rs. 2500

Prepare income and Expenditure account and the balance sheet for the year ended 31-3-2014

7 . The following balances appeared in the books of South East Electric Supply Company Ltd as on 31-12-2011.

Particulars	Debit	Credit

Equity Shares		7, 00,000
Debentures		1, 00,000
Land on 31-12-10	1, 50,000	
Purchased during 2011	60,000	
Mains on 31-12-10	1, 60,000	
Mains Purchased during 2011	76,000	
Machinery on 31-12-10	5, 50,000	
Purchased during 2011	66,000	
Creditors		1,000
Depreciation Fund	2, 50,000	
Debtors	40,500	
Stores on hand	8,000	
Cost of generation of electricity	31,000	
Cost of distribution	8,000	
Cash in hand	2,000	
Sale of current	1, 40,000	
Meter rent		15,000
Rent rates	12,000	
Establishment expenses	21,000	
Interest on Debentures	20,000	
Interim Dividend	10,000	
Depreciation	20,000	
Net revenue account balance on 31-12-10		28,500

Prepare (a) Revenue account (b)Net revenue a/c.(c) Capital account(d) General Balance Sheet

8. Lakshmi bank Ltd. Have the following bills in its advances portfolio on 31st December 2009.

S.NO.	Date of the bill	Amount(Rs.)	Term (Months)
1	Nov.11	5,000	4

2	Dec.16	6,000	3
3	Dec.7	4,000	4

The rate of discount is 10%. you are required to calculate the rebate on bills discounted and give the necessary journal entries.

9. The following figures have been extracted from the books of Ronald bank Ltd 31-3-2013 prepare profit and loss account and balance sheet .

	Rs.		Rs.
Paid up capital	10,00,000	Investment reserve	35,000
P&L account(cr.)	40,323	Branch adjustments(cr.)	36,894
Current accounts	34,12,604	Printing and stationery	4,543
Fixed deposits	38,95,554	Provident fund contribution	10,000
Savings bank	25,68,000	Salaries	50,650
Directors fee	5,980	Unexpired insurance	437
Furniture (castRs.50,000)	37,280	Statutory reserve	2,65,000
Interest on deposits	2,10,223	Legal expenses	1,650
Stamps in hand	189	Cash in hand	4,16,324
Land and buildings (costRs.3,00,000)	2,05,000	Deposits with banks	12,05,125
Deposit with RBI	40,00,000	Investments	8,78,125
Cash credits and over drafts	70,00,000	Bills discounted	14,00,520
Contingency reserve	50,000		
Commission and exchange	1,02,225		

The authorized capital of the bank is 20 lakhs divided into 20,000 shares of Rs.100 each. All shares have been subscribed, only half of the face value is called up depreciation on land and buildings Rs.8,000 on furniture Rs.3500 create provision for taxation Rs.1,10,000,.

10. The following are the balances extracted from the ledger of the life insurance corporation as on 31-12-2006

Particulars	Rs.	Particulars	Rs.
Life fund at the beginning	14,00,000	Bonus in reduction of premium	2,500

Claims by death	76,000	Preliminary expenses	600
Claims by maturity	56,000	Claims admitted but not paid at the end of the year	80,000
Premium	2,10,000	Annuities due but not paid	22,000
Management expenses	19,000	Share capital of Rs.100 each share	4,00,000
Commission	26,000	Government securities	15,00,000
Consideration for annuities granted	10,000	Sundry assets	4,33,700
Interest dividends and rents	52,000		
Income tax on profit	300		
Fines	100		
Surrenders	21,000		
Annuities	30,000		
Bonus paid in cash	9,000		

From the above particulars prepare the revenue account and balance sheet of the corporation,

Adjustments:

1. Claims covered under reinsurance by deathRs.5,000
2. Further claims intimated (by death) Rs.4, 000
3. Bonus the reduction on premium Rs.1, 000
4. Interest accrued Rs. 15,000
5. Premium outstanding Rs. 10,000

11. From following particulars prepare Fire Revenue A/C for year ending 31-3-2016.

	Rs.
Claims paid	9,60,000

Claims as on 1-4-2015	80,000
Claims intimated but not accepted on 31-3-2016	20,000
Claims intimated and accepted but not paid on 31-3-2016	1,20,000
Premium received	24,00,000
Re-insurance premium	2,40,000
Commission	4,00,000
Commission on reinsurance ceded	20,000
Commission on reinsurance accepted	10,000
Expenses of management	6,10,000
Provision for unexpired risk on 1-4-2015	8,00,000
Additional provision for unexpired risk	40,000
Bonus in reduction of premium	24,000

You are required to provide for additional reserve for unexpired risks at 1% of net premium in addition to opening balance.

12.Distinguish between Life Insurance General Insurance

Commerce	*CASO-401G/C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –IV

Accounting for Service Organizations

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Non-Trading/ Service Organizations	Electricity Supply Companies	Bank Accounts	Lire Insurance Companies	General Insurance
5Marks	1	1	1	0	1
15 Marks	1P	1T+ 1P	2P	1P+1T	1P
Weight age	20	35	35	30	20

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Commerce	CBL -402G/C C	2020-2021	*II.B.Com(gen/comp)*

SEMESTER – IV

BUSINESS LAWS

Objective: To make the students learn the basics of business laws and apply them in real life Situation

COURSE OUTCOMES

CO1 – Impacts the students in acquiring the basic knowledge regarding contracts in business.

and impact of it to "QUID-PRO-QUO" for the enforceability of the contract

CO2 –Students will have clarity on competency of persons, modes of discharge of contract, analyzing and approaching to remedies in times of breach of contract.

CO3-Studentswill gets knowledge in law and procedure relating to sale of goods in Indian context.

CO4-Students are able to acquire knowledge in law and procedure relating to consumer rights

CO5- Students will get knowledge in new dimensions in business Organisation relating to cyber laws

Commerce	*CBL-402G/C C*	*2020-2021*	*II.B.Com(gen/comp)*

SEMESTER –IV *SYLLABUS*

Business Laws

Unit-1 Contract

Meaning and Definition of Contract-Essential elements of valid Contract -Valid, Void and Voidable Contracts - Indian Contract Act, 1872.

Definition of Valid Offer, Acceptance and Consideration -Essential elements of a Valid Offer, Acceptance and Consideration.

Unit-2 Capacity of the Parties and Contingent Contract

Rules regarding to Minors contracts - Rules relating to contingent contracts – Different modes of discharge of contracts-Rules relating to remedies to breach of contract.

Unit-3 Sale of Goods Act 1930

Contract of sale – Sale and agreement to sell – Implied conditions and warranties –Rights of unpaid vendor.

Unit-4 Consumer Protection Act, 1986

Introduction, Aims and objectives of the Act - Definition - Consumer Rights - Unfair and restrictive trade practices - consumer protection Councils - Consumer disputes Redressal agencies - Penalties for violation.

Unit-5: Cyber Laws

Cyber Law and Contract Procedures - Digital Signature - Safety Mechanisms.

Suggested Readings:

1. J. Jayasankar, Business Laws, Margham Publication. Chennai -17
2. Kapoor ND, Mercentile Law , Sultan Chand
3. Balachandram V, Business law Tata
4. Tulsian , Business Law Tata

DEPARTMENT OF COMMERCE

Revision of the syllabus 2020-21 (SEM -2,4,6)

Name of the Subject: **Business Laws**

Subject Code: CBL402 G/C C

Semester -IV

Academic Year	**2020-21**
Title of the paper	**Business Laws**
Semester	IV
Course code	CBL402 G/C C
CIA marks	30
Semester End marks	70
Total marks	100
Year of Introduction	2019-20
Year of Revision	2019-20
% of revision	20%

UNIT	Syllabus	Addition	Deletion
I	**Contract**:MeaningandDefinition ofContract-EssentialElementsofValidContrac t -Valid,Void andVoidable Contracts-IndianContract Act, 1872. **Offer,AcceptanceandConsider ation**:DefinitionofValidOffer,Acc eptanceandConsideration-EssentialElementsofaValidOffer, AcceptanceandConsideration		
II	**CapacityofthePartiesandContingent Contract**:RulesRegardingtoMinors Contracts-RulesRelatingtoContingentContracts-DifferentModesofDischargeofContracts -Rules Relating toRemedies to BreachofContract.		

III	**Sale of Goods Act 1930** : Contract of Sale -Sale and Agreement to Sell - Implied Conditions and Warranties - Rights of UnpaidVendor.		
IV	**Consumer Protection Act 1986:** Introduction- Aims, and Objectives of the Act.- Definition – Consumer Rights –Unfair and restrictive trade practices -ConsumerDispute-ConsumerProtectionCouncils - ConsumerDisputeRedressalMechanism - Penalties for violation.	**Consumer Protection Act 1986:** Introduction-Aims, and Objectives of the Act.- Definition – Consumer Rights –Unfair and restrictive trade practices - ConsumerDispute-ConsumerProtectionCouncils - ConsumerDisputeRedressalMechanism- Penalties for violation.	
V	**CyberLaw**:OverviewandNeedforCyber Law-ContractProcedures-DigitalSignature– Safety Mechanisms		

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SEMESTER –IV

Business Laws

MODEL PAPER

TIME -3hrs *Max. Marks: 70*

SECTION-A

I. Answer any TWO of the following 2x5=10M

1.Acceptance

2.Contingent contracts

3.Unpaid seller

4.District forum

SECTION-B

II. Answer any FOUR of the following 4x15=60M

5.Define the term contract? What are the essentials of a valid contract?

6. Define consideration? What are legal rules to considerate?

7. Write about rules regarding Minors agreement?

8. What are the remedies available to an aggrieved party on the breach of Contract?

9. What is a contract of sale Explain its essential also distinguish a contract of sale from an Agreement to sell?

10.Explain briefly the implied conditions and warranties in a contract of sale?

11.Explain the provisions regarding secure electronic records and secure digitals signatures?

12.Define consumer? What are the rights of a consumer under consumer Protection act, 1986?

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SEMESTER –IV

Business Laws

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Contract	Capacity of the Parties and Contingent Contract	Sale of Goods Act 1930	Consumer Protection Act, 1986	Cyber Laws
5Marks	1	1	1	1	0
15Marks	2	2	2	1	1
Weight age	35	35	35	20	15

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Commerce	*CIT-403G C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –IV

Income Tax

OBJECTIVES:

1. To Impart knowledge of the concepts, principles, and rules of taxation of individuals and Agricultural Income

2.To provide and enable the students with the basic knowledge of Computation of total income of an individual

3. Recognize tax planning opportunities and recommend appropriate tax-saving strategies for decision making

COURSE OUTCOMES:

CO1 : Impact knowledge on the provisions of income tax law and practice Acquire Knowledge about Income exempt from tax and residential status of an individual

CO2: Enlist the ability of provisions of Income from salary and its deductions u/s 80c

CO3: The student can build an idea about Income from house property and its taxability

CO4: The student can acquire knowledge in calculation of capital gain and income from Other sources

CO5: The student can acquire knowledge in calculation of Computation of total income of an Individual

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Commerce	*CIT-403G C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –IV *SYLLABUS*

Income Tax

Unit-I Introduction:
Income Tax Law – Basic concepts: Income, Person, Assesses, Assessment year, Agricultural Income, Residential status, Income exempt from tax (Theory only).

Unit-IIIncome from salary:
Allowances, perquisites, profits in lieu of salary, deductions from salary income, computation of salary income and qualified savings eligible for deduction u/s 80C(Simple- problems).

Unit-IIIIncome from House Property:
Annual value, let-out/self occupied/deemed to be let-out house, deductions from annual value - computation of income from house property (Simple- problems)

Unit-IVIncome from Capital Gains
Income from Capital Gains(Simple- problems).(from Individual point of view)
Income from other sources(Theory)

Unit-V: Computation of total income:
Computation of total income of an individual – Deductions under section - 80 (Simple- problems).

Reference Books:
1. Dr. Vinod; K. Singhania; Direct Taxes – Law and Practice, Taxman Publications
2. B.B. Lal; Direct Taxes; Konark Publications
3. Dr. Mehrotra and Dr. Goyal; Direct Taxes – Law and Practice; Sahitya

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Commerce	*CIT-403G C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –IV

Income Tax

Model Question Paper

Time: 3 Hrs Max. Marks: 70

SECTION – A

I. Answer any TWO of the following 2X 5 = 10M

1. Explain about Agricultural income
2. Describe House rent allowance
3. Explain Gross annual value
4. Surcharge

SECTION – B

II. Answer any Four of the following 4 x15 =60M

5. How would you determine the Residential status of a Person.
6. Explain different Perquisites?
7. From the following particulars of sriram, a manger of a firm, compute his taxable Income from Salary
   a) Basic pay Rs 6000 P.M
   b) Dearness allowance Rs 400 P.M
   c) Own contribution to R.P.F Rs 3000 P.M
   d)Employee's contribution to R.P.F Rs 3000 P.M
   e) Interested credited to R.P.F 13% P.A Rs 4680
   f) House rent allowance Rs 7200P.M Rent paid in Delhi Rs5000 P.M
   g) Medical allowance Rs100 P.M
   h) Entertainment allowance Rs. 300 P.M

8.Explain how the Income from House Property is computed under the provision ofthe provision under the Provision of the Income Tax Act 1961

9.Compute income from House property Municipal valuation 16,000 P A. Fair rent 1,80,000 P.A ,Standard rent 1,50,000 P.A , Rent received 1,72,000 P A Municipal taxes 10% Municipal taxes are borne by the owner. Fire insurance Rs 3000, Interest on money borrowed for construction of house property paid Rs .36, 000 The House is let-out throughout the previous year.

10. What are the General Income and Specific Incomes under head "Income from Other Sources

11. Mr. Prasad submits the following particulars about sale of assetsCalculate the amount of taxable capital gain.

Particulars	JewelleryPlot Gold		
Sale Price	12, 00,000	50, 80,000	10,20,000
Expenses on sale	10,000	36,000	Nil
Cost of Acquisition	90,000	4, 20,000	1,30,000
Year of Acquisition	1989-90	1986-87	2003-04
CII	172 140	109	

CII for 2019-20 is:289

12. Compute Total Income of Sri Saibaba, an Indian resident of 30 years age

Gross Salary=86,000
Income from house property (computed)=20,000
Short term capital loss=10,000
Long term capital loss(Building)=12,000
Income from profession=5,000
Interest on securities(Gross)=4,000
Income from Govt. Securities(Gross)=16,750

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Commerce	*CIT-403G/ C*	*2020-2021*	*II.B.Com(gen)*

SEMESTER –IV

Income Tax

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Income from salary	Income from House Property	Income from Capital GainsIncome from other sources(Theory)	Computation of total Income of an individual
5Marks	1	1	1	0	1
15Marks	1T	1T+1P	1T+1P	1P+1T**	1P
Weight age	20	35	35	30	20

**** In Unit IV One Problem from Capital gains and One Theory from Income from other Sources**

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Commerce	*CBTP-401C C*	*2020-2021*	*II.B.Com(comp)*

SEMESTER –IV *SYLLABUS*

Banking Theory & Practice

Objective:

1.To impart knowledge in banking and financial services and update the innovations of the current banking system like E-Banking advancements.

2.To equip the students with the knowledge of Reserve Bank,Narbad and KYC norms

3.To provide and enable the students with the basic knowledge relating to general and special relationship between Banker and Customer

***COURSE OUTCOMES**:*

CO1: To understand the importance of commercial banking and the operations and structure of different financial institutions. To familiarize the students with regard of Organization working and importance of RBI

CO2: To train and equip with the skills in banking and financial services and Innovations of the current banking systems like e-banking advancements

CO3: To familiarize the students with regard to working and importance of Regional Rural Bank and NABARD

CO4: To know about the general and special relationship between Banker and Customer and KYC norms.

CO5: Toget knowledge about Duties & Responsibilities of Collecting Banker and Responsibilities of PayingBanker - Payment Gateways.

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Commerce	*CBTP-401C C*	*2020-2021*	*II.B.Com(comp)*

SEMESTER –IV *SYLLABUS*

Banking Theory & Practice

Unit-I: Introduction
Meaning & Definition of Bank – Functions of Commercial Banks – Kinds of Banks -Central Banking Vs. Commercial Banking.

Unit-II: Banking Systems
Unit Banking , Branch Banking, Investment Banking- Innovations in banking – e-banking - Online and Offshore Banking , Internet Banking - Anywhere Banking - ATMs- RTGS.

Unit-III: Banking Development
Indigenous Banking - Cooperative Banks, Regional Rural banks, SIDBI, NABARD -EXIM Bank.

Unit-IV: Banker and Customer
Meaning and Definition of Banker and customer – Types of Customers - GeneralRelationship and Special Relationship between Banker and Customer - KYC Norms.

Unit-V: Collecting Banker and Paying Banker
Concepts - Duties & Responsibilities of Collecting Banker – Holder for Value – Holderin Due Course – Statutory Protection to Collecting Banker - Responsibilities of PayingBanker - Payment Gateways.

Books for Reference
1. Banking Theory: Law & Practice : K P M Sundram and V L Varsheney
2. Banking Theory, Law and Practice : B. Santhanam; Margam Publications
3. Banking and Financial Systems : Aryasri
4. .Introduction to Banking : Vijaya Raghavan
5. Indian Financial System : M.Y.Khan
6. Indian Financial System : Murthy & Venugopal

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Commerce	*CBTP-401C C*	*2020-2021*	*II.B.Com(comp)*

SEMESTER –IV

BANKING THEORY& PRACTICE

Model Question Paper

Time: 3 hrs Max. Marks: 70

SECTION- A

I.Answer any TWO of the following questions 2 x 5= 10M

1.Industrial Bank

2.Offshore banking

3. Regional Rural Bank

4. KYC Norms

SECTION- B

II.Answer any FOUR of the following questions 4 x 15 = 60M

5. Describe the functions of commercial banks.

6. What are the various weapons of credit control available to R.B.I

7. Discuss the recent trends and innovations in banking system?

8. Elucidate the Merits and demerits of Branch Banking?

9. What are the functions of NABARD?

10. What are the special features of relationship between banker and customer?

11. Discuss in detail the statutory protection granted to a collecting banker in India

12. Discuss the duties and liabilities of a paying banker.

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Commerce	*CBTP-401C C*	*2020-2021*	*II.B.Com(comp)*

SEMESTER –IV

BANKING THEORY& PRACTICE

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Banking Systems	Banking Development	Banker and Customer	Collecting Banker and Paying Banker
5Marks	1	1	1	1	0
15Marks	2	2	1	1	2
Weight age	35	35	20	20	30

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Commerce	CEM-601 G/C C	2020-2021	*III.B.Com(gen/comp)*

SEMESTER-VI

Event management

OBJECTIVES: identifying events and determining corresponding control measures ϖ that events can be programmed in such a way that operational information is transferred

Develop and implement financial initiatives based on event objectives through methods such as ϖ sponsorship programs, grant applications, and fundraising initiatives. Plan, design, and coordinate effective site and facility operations. ϖ

COURSE OUTCOMES

CO1. Identify the needs of customers for organizing a corporate event and understand the types of Events.

CO2: Examine various types of Outdoor events and Managing the risk in the events. Relate Marketing management, Human Resource Management to Event Management

.

CO3: Students able to organize Shows, fashion shows, high profile charity events.

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Commerce	*CEM -601G/C C*	*2020-2021*	*III.B.Com(gen/comp)*

SEMESTER –VI

SYLLABUS

Event Management

Unit-I: Event Concept: Corporate Events and Customer's needs - Types of Events - Corporate hospitality – Exhibitions – Trade Fairs – Conferences –Business and Government Meets - Corporate event packages - Menu Selection - Customization.

Unit-II: Outdoor Events: Logistics, Types of Outdoor events, Risk management - Health and safety, Marketing and sponsorship, HR Management, Programming and Entertainment.

Unit-III: Celebrity Events: Launches, Fashion shows, National festivals and high-profile charity events - Liaison with agents, Contract Negotiations, Client briefings, Celebrity wish lists and expectations - Liaisoning with Govt. Departments.

References:

1. Event Management: A Blooming Industry and an Eventful Career by Devesh Kishore, Ganga Sagar Singh - Har-and Publications Pvt. Ltd.
2. Event Management by Swarup K. Goyal - Adhyayan Publisher.
3. Event Management & Public Relations by Savita Mohan - Enkay Publishing House
4. Event Entertainment and Production - Mark Sonder, CSEP, Wiley & Sons, Inc.
5. Special Event Production - Doug Matthews. 6. Fenich, G. Meetings, Expositions, Events, and Conventions: An introduction to the industry. New Jersey: Pearson Prentice Hall.

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Commerce	*CEM -601G/ C C*	*2020-2021*	*III.B.Com(gen/ comp)*

SEMESTER –VI

Model paper

Event Management

Time: 3 hrs Max. Marks: 50

SECTION- A

I. Answer any FOUR of the following questions 4 x 5= 20M

1. Corporate Hospitality
2. Trade Fairs
3. Risk Management
4. Sponsorship
5. Fashion Shows
6. Liaisoning

SECTION- B

II. Answer any THREE of the following questions 3 x 10 = 30M

7. Explain Different Types of Events
8. What are the uses of Exhibitions
9. Explain Different Types of Logistics
10. What is Programming of an Event and Entertainment
11. Who would launch a Product
12. Explain about High profile Charity Events.

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Commerce	*CEM -601G/ C C*	*2020-2021*	*III.B.Com(gen/ comp)*

SEMESTER –VI

Guidelines to the paper setter

Event Management

	UNIT-I	UNIT-II	UNIT-III
	Event Concept	Out Door Events	Celebrity Events
5 Marks questions	2	2	2
10 Marks questions	2	2	2
Weight age	30	30	30

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Commerce	CM-602GEG/C C	2020-2021	*III.B.Com(gen/comp)*

SEMESTER-VI

Marketing

Objective: 1.To acquire knowledge on marketing concepts, 7P's, to build applicable skills through variety internship opportunities

2. Student w ill gain understanding of consumer buyer behaviour, pricing strategies and ethical concept of marketing

COURSE OUTCOMES

CO1: To introduce the concepts of marketing and understand the factors influence the market environment.

C02: Analyze the consumer market models and enlightens consumer buyer behaviour models.

C03: Understand the concept of product and identify the need of product mix and product line decisions.

C04: Develop an idea about pricing strategies and pricing decisions.

C05: Enhance the students about decisions regarding promotion and distribution channels.

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Commerce	*CM 602GE G/C C*	*2020-2021*	*III.B.Com(gen/comp)*

SEMESTER –VI

SYLLABUS

Marketing

Unit-I: Introduction: Concepts of Marketing: Product Concept – Selling Concept - Societal Marketing Concept – Marketing Mix - 4 P's of Marketing – Marketing Environment.

Unit-II: Consumer Markets and Buyer Behaviour: Buying Decision Process – Stages – Buying Behaviour – Market Segmentation – Selecting Segments – Advantages of Segmentation.

Unit-III: Product Management: Product Life Cycle - New products, Product mix and Product line decisions - Design, Branding, Packaging and Labelling.

Unit-IV: Pricing Decision: Factors influencing price determination, Pricing strategies: Skimming and Penetration pricing.

Unit-V: Promotion and Distribution: Promotion Mix - Advertising - Publicity – Public relations - Personal selling and Direct marketing - Distribution Channels – Online marketing-Global marketing.

References:
1. Philip Kotler, Marketing Management, Prentice Hall of India.
2. Philip Kotler & Gary Armstrong, Principles of Marketing, Pearson Prentice Hall
3. Stanton J. William & Charles Futrel, Fundamentals of Marketing, McGraw Hill Company
4. V.S. Ramaswamy S. Nama Kumari, Marketing Management – Planning, McMillan

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SEMESTER –VI

Model paper

Marketing

Time: 3 hrs Max. Marks: 70

SECTION- A

I. Answer any TWO of the following questions 2x 5= 10M

1. Selling Concept
2. What is Consumer behaviour
3. What is New Product
4. Global marketing

SECTION- B

II.Answer any FOUR of the following questions 4 x 15 = 60M

5. Describe 4P's of Marketing
6. What are the Different Concepts of Marketing
7. What is Market Segmentation?
8. Describe Product Life Cycle.
9. What are the Factor Influencing Price Determination
10. What are the differences Between Personal selling and direct Marketing?
11. Advantages and disadvantages Packaging and labelling

12. What Steps are Involved in Consumer behaviour

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SEMESTER –VI

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Consumer Markets and buyer Behavior	Product Management	Pricing decision	Promotion and Distribution
5Marks	1	1	1	--	1
15Marks	2	2	2	1	1
Weightage	35	35	35	15	20

Marketing

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Commerce	*CAU-603GE G/C C*	*2020-2021*	*III.B.Com(gen/comp)*

SEMESTER –VI

Auditing

OBJECTIVES:

1. To impart knowledge pertaining to basic concepts of auditing.
2. To make the students learn the basics of rights and duties regarding auditing and audit report.
3. To acquaint oneself with auditing procedure.

COURSE OUTCOMES

CO1: Students will develop the knowledge & importance of auditing and accounting Of any Organisation and Role of Auditor in checking corporate frauds.

CO2: Students will have the ability of understanding the applicability of auditing types for different organizations

CO3: Students will have knowledge in planning the effectiveness of auditing and also internal check, internal audit and internal control.

CO4; Students will have proper understanding of the requirements of documentary evidence for the completion of Vouching and Investigation.

CO5: Students will have the knowledge in Company Audit and Auditors Report

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Commerce	*CAU-603GE G/C C*	*2020-2021*	*III.B.Com(gen/comp)*

SEMESTER –VI

SYLLABUS

Auditing

Unit-I: Auditing:
Meaning – Objectives – Importance of Auditing – Auditing as a VigilMechanism – Role of Auditor in checking corporate frauds.

Unit-II: Types of Audit:
Based on Ownership and time - Independent, Financial, Internal, Cost,Tax, Government, Secretarial audits
.

Unit-III: Planning of Audit:
Steps to be taken at the commencement of a new audit – Auditprogram me -
Audit note book - Internal check, internal audit and internal control.

Unit-IV: Vouching and Investigation:
Vouching of cash and trading transactions - Investigation, Auditing vs. Investigation

Unit-V: Company Audit and Auditors Report:
Auditor's Qualifications – Appointment andReappointment – Rights, duties, liabilities and disqualifications - Audit report: Contents –Preparation - Relevant Provisions of Companies Act, 2013.

References:
1. S.Vengadamani, "Practical Auditing", Margham Publications, Chennai.
2. Ghatalia, "Principles of Auditing", Allied Publishers Pvt. Ltd., New Delhi.
3. Pradeesh Kumar, Baldev Sachdeva & Jagwant Singh, "Auditing Theory and Practice, Kalyani Publications, Ludhiana.
4. N.D. Kapoor, "Auditing", S. Chand, New Delhi.

5. R.G. Saxena, "Principles and Practice of Auditing", Himalaya Publishing House, New Delhi.
6. Jagadesh Prakesh, "Principles and Practices of Auditing" Kalyani Publications, Ludhiana.

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SEMESTER –VI

Model Paper

Auditing

TIME -3hrs Max. Marks: 70

SECTION -A

I. Answer any TWO of the following question 2 x 5= 10M

1. Explain the scope of audit
2. Government Audit
3. Characteristics of Investigation.
4. Audit Report

.

SECTION -B

II. Answer any FOUR of the following questions 4x15=60M 5.

Define auditing .Explain its features and its advantages.

6. What are the various types of audits classified on the basis of organization Structure?
7. What is audit program me. Explain its advantages and disadvantages
8. What is internal control .Explain its advantages and disadvantages
9. "Vouching is the essence of auditing". Explain
10. Explain the difference between Investigation and auditing
11. Explain the rights and duties of an auditor.
12. Explain different types of Audit Reports

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SEMESTER –VI

Guidelines to the paper setter

Auditing

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Auditing	Types of Audit	Planning of Audit	Vouching and Investigation	Company audit and Auditors Reports
5Marks	1	1	---	1	1
15Marks	1	1	2	2	2
Weight age	20	20	30	35	35

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Commerce	CMA-604GE G/C C	2020-2021	*III.B.Com(gen/comp)*

SEMESTER-VI

MANAGEMENT ACCOUNTING

Objective:

To acquire knowledge about management accounting its applications, ratios andCVP analysis.

To acquire knowledge about preparation of various financial statements

COURSE OUTCOMES

CO1 – Students will critically understanding the financial and management accounting importance in understanding the business operations using different tools

CO2 – Students will understand the importance of changes of working capital for any Organisation and analysing the flow of fund

CO3 – Students will critically understanding the cash and fund flow concept and impact of cash flow on business operations

CO4 - Students will have the ability of assessing the solvency and profitability of any Organisation

CO5- Students will understand the profit making decisions in complex situations of any business Organisation

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SEMESTER –VI

SYLLABUS

Management Accounting

Unit–I: Management Accounting: Interface with Financial Accounting and Cost Accounting - Financial Statement analysis and interpretation: Comparative analysis – Common size analysis and trend analysis (including problems).

Unit–II: Ratio Analysis: Classification, Importance and limitations - Analysis and interpretation of Accounting ratios - Liquidity, profitability, activity and solvency ratios (including problems).

Unit–III: Fund Flow Statement: Concept of fund: Preparation of funds flow statement. Uses and limitations of funds flow analysis (including problems).

Unit–IV: Cash Flow Statement: Concept of cash flow – Preparation of cash flow statement – Uses and limitations of cash flow analysis (including problems).

Unit–V: Break-Even Analysis and Decision Making: Calculation of Break-even point - Uses and limitations - Margin of safety – Make/Buy Decision - Lease/own Decision (including Problems).

References:
1. S.N. Maheswari, A Textbook of Accounting for Management, S. Chand Publishing, New Delhi.
2. I.M Pandey, "Management Accounting", Vikas Publishing House, New Delhi,
3. Shashi K. Gupta & R.K. Sharma, "Management Accounting: Principles and Practice", Kalyani Publishers, Ludhiana.
4. Jawahar Lal, Accounting for Management, Himalaya Publishing House, New Delhi.
5. Charles T. Horngren, et.al, "Introduction to Management Accounting" Person EducationIndia, New Delhi, 2002.

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SEMESTER –VI

SYLLABUS

Management Accounting

Time: 3hrs Max.Marks:70

SECTION – A

I. Answer any TWO from the following: 2x5=10M

1. Explain common – size statements
2. What are the uses of management accounting?
3. Describe the importance ratios
4. Define a fund flow statement.

SECTION – B

II. Answer any FOUR from the following: 4x15=60M

5). Following are the two balance sheets of 'A' LTD and 'B' LTD on 31-3-2008.

Particulars	*'A'lid (Rs.)*	*'B' ltd. (Rs.)*
Assets:		
Cash	27	72
Sundry debtors	220	226
Stock	100	174
Prepaid expenses	11	21
Other current assets	10	21
Fixed assets (net)	635	513
Total assets	1003	1027
Liabilities & capital:		
Sundry creditors	42	154
Other current liabilities	78	62
Fixed liabilities	225	318
Capital	658	493
Total liabilities	1003	1027

From the above data, prepare a common-size statement and make comments

6).The following is the Balance sheet of Bhubaneswar Ltd., as on 30th June ,2008:

Liabilities	Rs.	Assets	Rs.
Equity share capital	3,00,000	Fixed assets	6,00,000
9% Pre f, share capital	1,00,000	Investments	50,000
10% Debentures	2,00,000	Current assets	2,50,000
Reserves and surplus	50,000		
Long- term Loans	25,000		
Current liabilities	2,25,000		
	9,00,000		9,00,000

You are required to calculate:

(a) Debt- equity ratio (long-term debt equity).
(b) Proprietary Ratio
(c) Solvency Ratio.
(d) Fixed assets to proprietor's funds ratio.
(e) Fixed assets ratio.
(f) Current assets to proprietor's funds ratio.

7). Following are the details of a company for the years 2006 and 2007, you are required to prepare Statement showing flow of funds :

Particulars	2006 Rs.	2007 Rs.
Assets:		
Cash	30,000	47,000
Debtors	1,20,000	1,15,000
Stock – in- trade	80,000	90,000
Land	50,000	66,000
	2,80,000	3,18,000
Capital and liabilities:		
Share capital	2,00,000	2,50,000
Trade creditors	70,000	45,000
Retained earnings	10,000	23,000
	2,80,000	3,18,000

		Rs.
Depreciation on Building	52,000	
Depreciation on plant and machinery	35,000	
Transfer to general reserve		10,000
Good will written off	8,000	
Plant and machinery having book value of Rs.14,000 was sold for		10,000
Profit on sale of investments		7,000

8). Define a cash flow statement. Distinguish between 'funds flow' and 'cash flow'.

9). X LTD, made a profit of Rs.18,00,000 for the year ended 31st march, 2008 after considering the following:

The following was the position of Current Assets and Current Liabilities of the company as on 31st march , 2007 and 31 march , 2008.

	31st march 2007 Rs.	31st march 2008 Rs.
Debtors	45,000	35,000
Stock	72,000	80,000
cash	12,000	21,000
creditors	56,000	62,000
outstanding expenses	7,000	5,000
Prepaid expenses	4,000	5,000
Bills payable	11,000	15,000

Calculate cash flows from operating activities.

10). From the following information pertaining to the two years, calculate.

(a) P/V ratio

(b) Amount of sales to earn profit of Rs 40, 000

(c) Profit on sales Rs.1, 20,000.

Years	Sales	Profit
1996	1, 40,000	15,000
1997	1, 60,000	20,000

11). Following are the balance Sheets of sun star Industries Ltd . for the years ending December 31, 2006 and 2007

Liabilities	2006 RS	2007 RS	Assets	2006 RS	2007 RS
Equity share	4,00,000	6,00,000	Land & Buildings	2,70,000	1,70,000
capital	3,12,000	3,54,000	Plant & Machinery	3,10,000	7,86,000
Reserves & surplus	50,000	1,00,000	Furniture &Fixture	9,000	18,000
Debentures			Other Fixed assets	20,000	30,000
Long – term loans	1,50,000	2,55,000	Long – term Loans	\46,000	59,000
on Mortgage	2,55,000	1,17,000	Cash in hand and at		
Accounts Payable			Bank	1,18,000	10,000
Other Current	7,000	10,000	Receivables	2,09,000	1,90,000
Liabilities			Inventory	1,60,000	1,30,000
			Prepared Expenses	3,000	3,000
			Other current assets	29,000	40,000
	11,74,000	14,36,000		11,74,000	14,36,000

Analyze the Financial position of the company with the help of Comparative Balance sheet

12). From the given information calculate

. (a) B.E.P

(b) Sales to earn a profit of Rs.1, 00,000

(c) Margin of safety where. Sales are Rs10, 00,000

Total sales 6, 00,000

Total variable costs 4, 00,000

Total fixed costs 50,000

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Commerce	*CMA 604GE G/C C*	*2020-2021*	*IIIB.Com(gen/comp)*

SEMESTER –VI

SYLLABUS

Management Accounting

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Management Accounting	Ratio Analysis	Fund Flow Statement	Cash Flow Statement	Break-Even Analysis and Decision Making
5Marks	2	1	1	--	--
15Marks	2	1	1	1T+1P	2
Weightage	40	20	20	30	30

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

(AUTONOMOUS)

(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	CFS-605 CE G/C	2020-2021	*III.B.Com(gen)*

SEMESTER-VI

FINANCIAL SERVICES

Objective:

To acquire knowledge about various financial services offered by banking and nom-.banking companies

Students will develop an idea of recent trends in financial services

COURSE OUTCOMES

CO1 – Students can impart knowledge about various financial services offered by banking and nom-.banking companies

CO2 – Students can understand various merchant banking services

CO3 – To know emergence and development of financial services in leasing and hire-purchase

CO4 – Students will acquire the knowledge of various credit rating agencies and concept of mutual funds

CO5- To understand the various financial services and their future

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Commerce	*CFS 605 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –VI

SYLLABUS

Financial Services

Unit-I: Financial Services: Role of Financial Services - Banking and Non Banking Companies – Activities of Non Banking Finance Companies- Fund Based Activities - Fee Based Activities .

Unit-II: Merchant Banking Services: Scope and importance of merchant banking services - Venture Capital - Securitization - Demat services - Commercial Papers – Treasury bills

Unit-III: Leasing and Hire-Purchase: Types of Lease, Documentation and Legal aspects – Fixation of Rentals and Evaluation - Hire Purchasing- Securitization of debts - House Finance.

Unit-IV: Credit Rating: Purpose – Types – Credit Rating Symbols – Agencies: CRISIL and CARE – Equity Assessment vs. Grading – Mutual funds.

Unit-V: Other Financial Services: Factoring and Forfaeiting - Procedural and financial aspects – Installment System - Credit Cards - Central Depository Systems: NSDL, CSDL.

References:
1. B. Santhanam, Financial Services, Margham Publication, Chennai.
2.M.Y. Khan, Financial Services, Tata McGraw – Hill, New Delhi.
3. Machendra Raja, Financial Services, S.Chand Publishers, New Delhi.
4. V. A. Avdhani, Marketing of Financial Services.
5. Machiraji, "Indian Financial System", Vikas Publishers.
6. Sandeep Goel, Financial Services, PHI Learning.
7. L.M. Bhole, Financial Institutions and Markets, Tata McGraw Hill.

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Commerce	*CFS 605 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –VI

Model paper

Financial Services

TIME -3hrs Max. Marks: 70

SECTION -A

I. Answer any TWOof the following question 2 x 5= 10M

1. What are Banking Companies?
2. What is Venture Capital?
3. Hire Purchasing.
4. NSDL.

SECTION -B

II. Answer any Four of the following questions 4x15=60M

5. Explain the role of Financial Services
6. Explain the activities of Non Banking Finance Companies
7. Explain the Scope and Importance of Merchant Banking
8. Explain Demat services and Securitization
9. Explain the Types of Leases
10. Explain Different Credit rating agencies
11. Describe about Mutual funds
12. What are Central Depository Systems?

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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Commerce	*CFS 605 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –VI

Guidelines to the paper setter

Financial Services

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Financial Services	Merchant Banking Services	Leasing and Hire-Purchase	Credit Rating	Other Financial Services
5Marks	1	1	1	0	1
15Marks	2	2	1	2	1
Weightage	35	35	20	30	20

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

(AUTONOMOUS)

(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	CMFS-606 CE G/C	2020-2021	*III.B.Com(gen)*

SEMESTER-VI

MARKETING OF FINANCIAL SERVICES

Objectives:

To acquire knowledge about various financial services offered by banking and nom-.banking companies

Students are able to learn basic concepts in marketing of financial services And environment

COURSE OUTCOMES

CO1 – Students are able to learn basic concepts in marketing of financial services

CO2 –Students are able to learn the concepts of service environment

CO3 –Students are able to impart knowledge about pricing strategies and promotion strategies

CO4 – Students can impart knowledge regarding promotion and distribution

CO5 –Students can impart knowledge about various retail financial services

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
(AUTONOMOUS)
(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)
DA)

Commerce	*CMFS 606 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –VI

SYLLABUS

Marketing of Financial Services

Unit-I: Difference between Goods and Services: Managing Service Counters – Integrated Service Management – Service Elements.

Unit-II: Constructing Service Environment – Managing People for service Advantage – Service Quality and Productivity – Customer Loyalty.

Unit-III: Pricing and Promotion Strategies: Pricing strategies – Promotion strategies – B2B Marketing – Marketing Planning and Control for services.

Unit-IV: Distributing Services: Cost and Revenue Management – Approaches for providing services - Channels for Service provision – Designing and managing Service Processes.

Unit-V: Retail Financial Services - Investment services – Insurance services - Credit Services - Institutional Financial Services - Marketing practices in select Financial Service Firms.

References:

1. Aradhani "Marketing of Financial Services" Himalaya Publications
2. Sinha and Saho, Services Marketing, Himalaya Publishing House
3. Reddy Appanaiah, Anil Kumar and Nirmala, Services Marketing, Himalaya Publishing.
4. Shajahan, Services Marketing, Himalaya Publishing House.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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Commerce	*CMFS 606 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER –VI

Model paper

Marketing of Financial Services

TIME -3hrs Max. Marks: 70

SECTION -A

I. Answer any TWOof the following question 2 x 5= 10M

1. What are the service elements?
2. Customer loyalty
3. Marketing Planning
4. Designing and Managing service process

SECTION -B

II. Answer any Four of the following questions 4x15=60M

5. Describe Managing Service Counters
6. Explain Service Quality and Productivity
7. Explain different Pricing strategies
8. Explain B2B Marketing
9. What are the different approaches for providing services?
10. What are the advantages of Cost and Revenue Management?
11. Explain Institutional Financial Services
12. Explain different Service Elements

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
(AUTONOMOUS)
(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	*CMFS 606 CE G/C*	*2020-2021*	*III.B.Com(gen)*

SEMESTER – VI

Guidelines to the paper setter

Marketing of Financial Services

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Difference between Goods and Services	Constructing Service Environment	Pricing and Promotion Strategies	Distributing Services	Retail Financial Services
5Marks	1	1	1	1	---
15Marks	2	1	2	2	1
Weightage	35	20	35	35	15

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	**ENP -403C**	*2020-2021*	*B.Com(gen)*

Foundation Course – 9

ENTREPRENEURSHIP

Syllabus, For all Degree Programmes.

w.e.f. 2015-16 (Revised in April, 2016)

Semester – IV (Total 30 Hrs)

Unit-I: Entrepreneurship: Entrepreneur Characteristics – Classification of Entrepreneurships – Incorporation of Business – Forms of Business organizations –Role of Entrepreneurship in economic development – Start-ups.

Unit-II: Idea Generation and Opportunity Assessment: Ideas in Entrepreneurships – Sources of New Ideas – Techniques for generating ideas – Opportunity Recognition – Steps in tapping opportunities.

Unit-III: Project Formulation and Appraisal : Preparation of Project Report –Content; Guidelines for Report preparation – Project Appraisal techniques –economic – Steps Analysis; Financial Analysis; Market Analysis; Technical Feasibility.

Unit-iv: Institutions Supporting Small Business Enterprises: Central level Institutions: NABARD; SIDBI, NIC, KVIC; SIDIO; NSIC Ltd; etc. – state level Institutions –DICs- SFC- SSIDC- Other financial assistance.

Unit-V: Government Policy and Taxation Benefits: Government Policy for SSIs- tax Incentives and Concessions –Non-tax Concessions – Rehabilitation and Investment Allowances.

Reference Books:

1. Arya Kumar, Entrepreneurship, Pearson, Delhi, 2012.
2. Poornima M.CH., Entrepreneurship Development –Small Business Enterprises, Pearson, Delhi,2009
3. Michael H. Morris, ET. al., Entrepreneurship and Innovation, Cen gage Learning, New Delhi, 2011
4. KanishkaBedi, Management and Entrepreneurship, Oxford University Press, Delhi, 2009
5. Anil Kumar, S., ET.al., Entrepreneurship Development, New Age

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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Commerce	**ENP -403C**	*2020-2021*	*B.Com(gen)*

SEMESTER – IV MODEL QUESTION PAPERCOURSE CODE: ENP -403C

PAPER TITLE :ENTREPRENEURSHIP

Duration : 2Hours Maximum marks : 50 Pass marks : 20

SECTION - A

Answer any FOUR of the following questions (4x5=20 Marks)

1.Features of Entrepreneur.
2. Rural Entrepreneurship .

3. Idea Generation Tecchiques .

4. Sources of New Ideas .

5.What is project Report.

6.Industrial Estates.

7.S.F.C.

8.Rehabilitation Allowance.

SECTION – B

Answer any THREE of the following questions. **(3X10=30 Marks)**

9.Explain the role of Entrepreneur in the Economic Development.

10. How can Entrepreneur Generate Ideas..

11. Explain the contents of project report.

12.. Write about NABARD and state its functions.

13. Write about SIDBI and its functions.

14. Write about New small Entreprise policy 1991.

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Commerce	**ENP -403C**	*2020-2021*	*B.Com(gen)*

SEMESTER – IV **MODEL QUESTION PAPER** **COURSE CODE: ENP -403C**

PAPER TITLE :ENTREPRENEURSHIP

Maximum marks : 50Duration : 2Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (20Marks)	2	1
Unit-2 (20Marks)	2	1
Unit-3 (15Marks)	1	1
Unit-4 (30Marks)	2	2
Unit-5 (15Marks)	1	1
TOTAL 100	40	60

1. Each Short answer question carries 5 marks in Section-A
2. Each Essay question carries 10 marks in Section –B
3. The Question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us .

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LEADERSHIP EDUCATION

SYLLAUBUS (SEMESTER-IV)

1.Organisation-Management-Leadership-Meaning and significance-different theories-trait theory,black&mountan theory-other functions of management.

2.Behavioral concepts-individual behavior-perception-learning-attitude formation and change-motivation-theories of motivation-personality development.

3.Interpersonal behavior-communication-leadership-influencing-relations-transactional analysis.

4.Group dynamics-roles-morale-conflict-group-inter-group behavior-inter-group collaboration and conflict management.

5.Team building and management-developing team resources-designing team-participation and repercussion-team building

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SEMESTER - IV **COURSE CODE: LEP-404**

PAPER TITLE: LEADER SHIPEDUCATION **IIB.A., B.COM.,B.SC.,**

Duration : 2 Hours **Maximum Marks: 50** **Pass Marks: 20**

SECTION-A

I. Answer any Four of the following questions. **4 x 5=20 Marks**

1. Define organization?
2. Define management
3. What is learning?
4. What is motivation
5. Explain about verbal communication ?
6. Write about non verbal communication?
7. What is conflict?
8. what is team building activities ?

SECTION- B

II. Answer any Three of the following questions. **3x10=30Marks**

9. What is leader ship? Discuss its importance.
10. What are the Principles of management ? Discuss in detail
11. Discuss Motivation concept and its characteristics ?
12. What is communication ? Explain process of communication?
13. Discuss the importance of group dynamic concepts.
14. What is team building? What are the approaches of team building.

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The guidelines to be followed by the question paper setters in leadership for the IV semester-end exams (2017 - 2018)

Paper title : leadership Education **II B.A., B.COM., B.SC.,**

Semester-IV **Maximum Marks : 50** **Duration:2 Hours**

Weight age for the question paper

SYLLABUS	SECTION-A (short questions) 5 Marks	SECTION-B (essay questions) 10 Marks
Unit-1 (30 Marks)	2	2
Unit-2 (20 Marks)	2	1
Unit-3 (20 Marks)	2	1
Unit-4 (15 Marks)	1	1
Unt-5 (15 Marks)	1	1
TOTAL Questions	8	6

•The question papers setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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Commerce	CAD-202 G/C	***2020-2021***	***I.B.Com(gen&comp)***

SEMESTER –II **ADVERTISING**

Total 30 hrs (2hrs/wk) 02 credits & Maximum 50 Marks

Learning Outcomes: After Successful completion of this course, the students are able to;

1. Understand the field of Advertising
2. Comprehend opportunities and challenges in Advertising sector
3. Prepare a primary advertising model
4. Understand applying of related skills
5. Examine the scope for making advertising a future career Syllabus

UNIT I: 06hrs Introduction of advertising concepts- functions - Types of advertising - Creative advertising messages - Factors determining opportunities of a product/service/Idea

UNIT II: 10 hrs Role of advertising agencies and their responsibilities - scope of their work and functions - - Ethical issues - Identifying target groups -Laws in advertising. Advertising Statutory Bodies in India - Role of AAAI (Advertising Agencies Association of India), ASCI (Advertising Standard Council of India)

UNIT III: 10hrs Types of advertising – Basic characteristics of a typicaladvertisement –Reaching target groups - Local advertising – Feedback on impact of advertisement - Business promotion.

Recommended Co-curricular Activities (04 hrs):

1. Collection and segmentation of advertisements
2. Invited Lectures/skills training on local advertising basics and skills
3. Visit to local advertising agency
4. Model creation of advertisements in compliance with legal rules
5. Assignments, Group discussion, Quiz etc

Reference booksand Websites:

1.Bhatia. K.Tej - Advertising and Marketing in Rural India - Mc Millan India

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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Commerce	CAD-202 G/C	***2020-2021***	***I.B.Com(gen&comp)***

SEMESTER –II

ADVERTISING

Model Paper

Skill Development Course

DURATION: 2 HOURS **SECTION – A Max:50**

ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS (4x5=20M)

1. **What do you mean by Service**
2. **Define Adverting**
3. **What are the Functions of advertising agency**
4. **Write last in advertising**
5. **Advertising and Ethical issues**
6. **Local advertising**
7. **What are target groups**
8. **Write about Business promotion**

SECTION – B

ANSWER ANY THREE OF THE FOLLOWING QUESTIONS (3x10=30M)

9. **Explain the Functions of Advertising**
10. **What are the factors deterring opportune of a product or an ideas**
11. **Explain the role of advertising agencies**
12. **What are the advertising statutory bodies in India**
13. **Write types of advertising**
14. **What are the basic features of advertising**

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
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Commerce	CAD-202 G/C	***2020-2021***	***I.B.Com(gen&comp)***

SEMESTER –II **ADVERTISING**

SYLLABUS	SECTION-A (short questions) 5 Marks	SECTION-B (essay questions) 10 Marks
Unit-1	2	2
Unit-2	3	2
Unit-3	3	2
TOTAL	40	60

A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS), VUYYURU

DEPARTMENT OF ENGLISH

BOARD OF STUDIES MEETING

GENERAL ENGLISH

VENUE

ENGLISH LANGUAGE LABORATORY

DATE

12th June, 2020

Minutes of the meeting of Board of studies in General English for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held on 12-06-2020 in the English Language Laboratory at 12:00 pm.

Ms G.Soni ... Presiding

Members Present:

1)..... **(G.SONI)**	Chairman	Head, Department of English AG & SG S Degree College Vuyyuru-521165
2)..... **(Dr E.DILEEP)**	University Nominee	Professor, Department of English Krishna University, Machilipatnam.
3)..... **(Dr V.PALA PRASADA RAO)**	Academic Council Nominee	Lecturer, Department of English JKC College, Guntur.
4)..... **(M.VINCENT PAUL)**	Academic Council Nominee	Head, Department of English Sir C.R.Reddy College, Eluru
5)..... **(B.BULLI BABU)**	Member	Lecturer in English AG & SG S Degree College, Vuyyuru-521165
6)..... **(M.ROJA)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru-521165
7) ..... **(R.V.V.APARNA)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru – 521165
8) ..... **(Dr G.PRIYANK VARMA)**	Member	Assistant Professor, Department of English, SRM University, Amaravati – A.P.
9) 12/6/2020 **(MEGHANA GRACE MICHEAL)**	Member	Soft Skills Trainer, Payroll Officer, HSBC HDPI, Hi-tech City, Hyderabad.

Agenda for B.O.S Meeting of General English for I & III SEMESTERS for the Academic Year 2020-21

The following proposals are submitted as a part of the agenda for the consideration and approval of the honorable members of Board of Studies, at the meeting held on 12th June, 2020.

1. To recommend syllabi for 1st and 3rd semesters of I & II Degree students of all disciplines for the Academic Year 2020-21.
2. To Consider and approve the additional inputs and minor modifications in the I & III Semester papers of General English.
3. To recommend and incorporate COMMUNICATIVE AND COMPETITIVE ENGLISH syllabus in UNIT-VI for 1st and 3rd semesters of I & II Degree students of all disciplines for the Academic Year 2020-21.
4. To recommend the Model Question Papers of 1st and 3rd semesters of I & II Degree of all disciplines for the Academic Year 2020-21.
5. To recommend the Guidelines to be followed by the question paper setters in General English for the 1st and 3rd semester-end exams of I & II Year students of all disciplines
6. To recommend the teaching and evaluation methods to be followed under Autonomous status.
7. To recommend topics for online teaching and evaluation patterns.
8. To consider and approve the implementation of Pedagogy methods like Quiz, classroom seminar, Assignment or Case study, Test, puzzles, viva and few more innovative methods in classroom teaching as indicated in the curricular plans.
9. To consider and approve to arrange Guest Lectures by Subject Experts @ 1(minimum) per Semester rounded up to more than 3 per academic year.
10. Any suggestions regarding Certificate/Add-on Courses, Seminars, Workshops, Guest Lectures and student competitions to be organized.
11. To note any changes in the syllabus if made by APSCHE for the admitted batch of I Semester of the academic year 2020-21.
12. Any other matter.

RESOLUTIONS

1. Discussed and recommended the syllabus for 1st and 3rd semesters of I & II Degree students of all disciplines for the approval of the Academic Council.
2. Considered and approved the minor changes and additional inputs meant for I & III Semester papers of General English.
3. Discussed and recommended the syllabi with some changes for 1st and 3rd semesters of I & II Degree students of all disciplines for the approval of the Academic Council. Incorporated **COMMUNICATIVE AND COMPETITIVE ENGLISH** syllabus in UNIT-VI for the 1st and 3rd semesters of I & II Degree students of all disciplines for the Academic Year 2020-21. UNIT-VI is meant for internal evaluation as it is purely based on Laboratory activity. Learner autonomy needs to be built into the activities which will provide hands on experience in using the language and thus "learning by doing".

I SEMESTER

➢ **In Unit – VI of COMMUNICATIVE AND COMPETITIVE ENGLISH,** the following topics

1. Names and Actions

2. Descriptions and Connections

are incorporated in the syllabus . These two topics focus on sensitizing the students to the aspects of the language through a series of activities to develop grammatical applications, vocabulary, listening, reading, writing and speaking skills. The objective is now, therefore, to enhance the communication skills in English by providing adequate opportunities to practice.

Objectives:

At the end of the Topic-1 **(Names and Actions)**, the students should be able to:

- Identify nouns and verbs
- Distinguish and use singular and plural nouns
- Distinguish the pronunciation of (past tense endings) /t/, /d/, /Id/ and (plural endings)
- /s/, /z/,/iz/
- Differentiate tense (time) from verbs (action)
- Recognize homophones
- Comprehend reading texts and respond to tasks

At the end of the Topic-2 **(Descriptions and Connections)**, the students should be able to:

- Recognize adjectives
- Sort positive, comparative and superlative degree forms
- Convert word class: noun to verb, adjective to noun, verb to noun
- Transform adjectival forms (word level, sentence level: degrees of comparison)
- Compare prepositions and use the appropriate ones in a given context

- Recognize 'rhymes' – (sounds, words)
- Use adjectives & prepositions (speaking & writing)
- Introduce themselves using adjectives
- Describe their friends using adjectives
- Identify homophones
- Comprehend, interpret, and analyze reading texts

III SEMESTER

In Unit – VI of COMMUNICATIVE AND COMPETITIVE ENGLISH, the topic **COMPOSITION** is incorporated in the syllabus. This topic focuses on sensitizing the students to improve one's own writing skills.

Objectives

At the end of this topic, the students should be able to:

- Use passive structures to write reports
- Recognize& write emails
- Develop hints by framing sentences & write paragraphs
- Read texts using higher order thinking skills (academic reading comprehension)

4. Discussed and recommended the Question paper pattern for the 1st Semester of I Year students of all disciplines for the approval of the Academic Council.
5. Discussed and recommended the guidelines to be followed by the question paper setters of General English for 1st Semester of first degree students of all disciplines for the approval of the Academic Council.
6. Discussed and recommended the teaching methodology to be taken up and the evaluation patterns to be done.
7. Discussed and recommended the topics for online teaching to be taught and the evaluation patterns to be taken up.
8. Considered and approved the implementation of Pedagogy methods like Quiz, classroom seminar, Assignment or Case study, Test, puzzles, viva and few more innovative methods in classroom teaching as indicated in the curricular plans.
9. Considered and approved to arrange Guest Lectures by Subject Experts rounded up to 3 per academic year.
10. Discussed and recommended to continue the Certificate Course on 'Competitive English' this academic year too.
11. Discussed and recommended to incorporate the 80% of the new syllabus if introduced / made by APSCHE for the admitted batch of the I Semester for the academic year 2020-21. The same syllabus shall be incorporated as per the guidelines along with UNIT -VI.

Teaching methods:

Besides the conventional methods of teaching (The Direct Method, The Structural Approach), Grammar-Translation Method, Audio-lingual Method, Communicative Language Teaching (CLT), Task-Based Language Learning etc,. are practiced. We use modern technology i.e. using of an LCD projector, display on U boards, you tube videos etc., for better understanding of concepts.

There are two components in the Valuation and Assessment of a student – Internal Assessment (IA) and Semester Examinations (SE).

Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory. Out of these 30 marks, 20 marks are allocated for announced tests.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /presentations/Online/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation. For attendance 5 Marks are allotted.
- There is no passing minimum for IA.

Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration, with maximum 70 marks, irrespective of the number of credits allotted to it.
- Even though the candidate is absent for two IA exams/obtain zero marks, the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The pass mark shall be 28 out of 70 in the Semester end examination.
- The maximum marks for each Paper shall be 100.

8. Discussed and recommended to organizing Seminars, Guest lectures, Workshops to enhance the knowledge of students besides conducting Certificate Courses on Spoken English, Soft Skills and Competitive English. It has been suggested that the Certificate Courses may be feasible to the students (interested students) of all disciplines of II years and the resource person may be a Guest Faculty to handle the classes regularly beyond the curriculum. All these recommendations are forwarded for the approval of the Academic Council.

9. Nil.

Signatures of the BOS Members:

Dr.E.DILEEP
(University Nominee)

Dr.V.PALA PRASADA RAO
(Academic Council Nominee)

(Sri M.VINCENT PAUL)
(Academic Council Nominee)

B.BULLI BABU
(Member)

M.ROJA
(Member)

R.V.V.APARNA
(Member)

Dr.G.PRIYANK VARMA
(Member)

MEGHANA GRACE MICHAEL 17/6/2020
(Member)

Chairman

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE,
VUYYURU – 521165
(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam.)
Accredited with "A" Grade by NAAC, Bengaluru
Semester - I

COURSE STRUCTURE

ENGLISH PRAXIS COURSE-I
A COURSE IN COMMUNICATION AND SOFT SKILLS

Course Code	**ENGT11B**	**Course Delivery Method**	**Class Room/ Blended Mode - Both**
Credits	**03**	**CIA Marks**	**30**
No.of Lecture Hours / Week	**4**	**Semester End Exam Marks**	**70**
Total No.of Lecture Hours	**60**	**Total Marks**	**100**
Year of Introduction:	**Year of Offering: 2020-21**	**Year of Revision: 2020-21**	**Percentage of Revision: 100%**
CLASS:	**I YEAR DEGREE (ALL COURSES)**		

Course objective:

The aim of this course is to improve the speaking skills of the learners in regard to the sound-spelling relationship of the language appears anarchic and to introduce the basic Grammar and Vocabulary as well as reading skills. Another problem that many Indian languages face is English Word Accent.

Course Outcomes:

By the end of the semester, the students can acquire linguistic competence to be able to compete with the globalised world and become successful in all the challenges that they face. On successful completion of the paper, the students are introduced to communicative skills, to define, classify, and understand the methods of communication, to improve their LSRW skills, to enable them to practice those skills in their daily life by identifying instances of communication in the circumstances of their own.

- Introduced the students to the speech sounds of English in order to enable them to listen to English and speak with global intelligibility
- Enabled the students to speak English confidently and effectively in a wide variety of situations.
- Helped the students to improve their writing efficiency by refining their writing strategies.

Academic Year 2020-21

Changes made in the syllabus

Semester-I General English

Course content suggested by APSCHE	Additions	Deletion
Unit – I **Listening Skills** 1. Importance of Listening 2. Types of Listening 3. Barriers to Listening 4. Effective Listening		**Nil**
Unit-II **Speaking Skills** 1. Sounds of English: Vowels and Consonants 2. Word Accent 3. Intonation		
Unit-III **Grammar** 1. Concord 2. Modals 3. Tenses (Present/Past/Future) 4. Articles 5. Prepositions 6. Question Tags 7. Sentence Transformation (Voice, Reported Speech & Degrees of Comparison) 8. Error Correction		
Unit-IV **Writing** 1. Punctuation 2. Spelling 3. Paragraph Writing		
Unit-V **Soft Skills** 1. SWOC 2. Attitude 3. Emotional Intelligence 4. Telephone Etiquette 5. Interpersonal Skills		
	Unit-IV **Communicative and Competitive English** 1. Names and Actions 2. Descriptions and Connections	

In Unit – VI of COMMUNICATIVE AND COMPETITIVE ENGLISH, the following topics

1. **Names and Actions**
2. **Descriptions and Connections**

are incorporated in the syllabus . These two topics focus on sensitizing the students to the aspects of the language through a series of activities to develop grammatical applications, vocabulary, listening, reading, writing and speaking skills. The objective is now, therefore, to enhance the communication skills in English by providing adequate opportunities to practice.

Since the **APSCHE** has revised the syllabus under CBCS framework with effect from **2020-2021**, the following syllabus for General English of Semester-I (English Praxis Course-I) titled **'A Course in Communication and Soft Skills'** shall be implemented for the admitted batch of the first year for this academic year 2020-21with some minor changes. The topics: Paragraph Writing, SWOC and Interpersonal Skills have not been included in the Semester-I as the overloaded curriculum may lead to academic underperformance of the rural students. These topics shall be introduced and implemented in the II Semester. All these changes are brought to the notice of the BOS Members through mail /phone call and their consent is being taken.

English Syllabus-Semester-I
(English Praxis Course-I)
A Course in Communication and Soft Skills

Learning Outcomes

By the end of the course the learner will be able to:

- Use grammar effectively in writing and speaking.
- Demonstrate the use of good vocabulary.
- Demonstrate an understating of writing skills.
- Acquire ability to use Soft Skills in professional and daily life.
- Confidently use the tools of communication skills.

I. UNIT: Listening Skills
   a. Importance of Listening
   b. Types of Listening
   c. Barriers to Effective Listening

II. UNIT: Speaking Skills
   a. Sounds of English: Vowels and Consonants
   b. Word Accent
   c. Intonation

III. UNIT: Grammar
   a. Concord
   b. Modals
   c. Articles
   d. Prepositions
   e. Tenses (Present/Past/Future)
   f. Question Tags
   g. Sentence Transformation (Voice, Reported Speech & Degrees of Comparison)
   h. Error Correction

IV. UNIT: Writing
   a. Punctuation
   b. Spelling

V. UNIT: Soft Skills
   a. Positive Attitude
   b. Emotional Intelligence
   c. Telephone Etiquette

VI. UNIT: Communicative and Competitive English
1. Names and Actions
2. Descriptions and Connections

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ENGLISH	ENG PRAXIS 101C	2020-2021	B.A,B.Com & B.Sc

Time: 3 hours **Max Marks: 70**

The Pattern of the Question Paper for Semester – I: ENG PRAXIS 101C

Semester - I

I. Answer any ONE of the following questions in 150 words: **1x8 = 8M**

(3 Essay questions to be given)

II. Answer all the THREE questions:

1. Find the ODD Sound from the given options **5x1=5M**

OR

Write the phonemic symbol of the underlined letters of the given words.

2. Mark the stress for any FIVE of the given words. **5x1=5M**

(8 Words to be given)

3. Mark and name the tone for any FIVE of the given sentences. **5x1=5M**

(8 Sentences to be given)

III. Answer all the TEN questions:

1. Insert the correct word given in brackets : **½ x2=1M**

(4 Sentences to be given)

2. Select the modal form from the options that best completes the sentence. **½ x2=1M**

(4 Sentences to be given)

3. Choose an appropriate article given in brackets to complete the sentences **½ x3=1½M**

4. Select the correct preposition to complete the sentences.. **½ x3=1½M**

5. Fill in any FIVE of the blanks with suitable verb forms given in brackets. **5x1=5M**

(8 sentences to be given)

6. Add Question Tags to any FIVE of the following sentences. **5X1=5M**

(7 sentences to be given)

7. Convert any THREE of the following sentences into passive voice. **3X1=3M**

(5 sentences to be given)

8. Rewrite any THREE of the following sentences in indirect speech. **3x1=3M**

(5 sentences to be given)

9. Fill in the blanks with suitable degrees to the following words. **3x1=3M**

10. Correct any FIVE of the following underlined/italicized part of the sentences. **5x1=5M**

(7 sentences to be given)

IV. Rewrite the given paragraph, making corrections in spelling for the underlined words and the use of capitals and punctuation. **5M**

2 marks for Spelling (the given words must be underlined) and 3 marks for marking punctuation and the use of capitals.

V. Answer the TWO questions:

1. Answer any ONE of the following questions in 150 words: **1x8=8M**

(3 Essay questions to be given)

2. Write a telephone conversation for any ONE of the following contexts**.** **5M**

(2 Contexts to be given)

a) A conversation on different contexts and situations.

b) Fill in the blanks in the transcript of the telephone conversation with suitable responses and expressions.

(6 blanks to be filled in a given conversation)

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ENGLISH	ENG PRAXIS 101C	2020-2021	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 70**

ENG PRAXIS 101C

Semester - I

Model Question Paper

I. Answer any ONE of the following questions in about 150 words. 1x8=8M

a. 'Listen not only with your ears but also with your eyes.' Discuss.
b. Name three barriers to effective listening and give examples of these from your own experiences.
c. What is empathetic listening? Where is this kind of listening generally practiced?

II. Answer all the THREE questions:

1. Find the ODD Sound from the given options. 5x1=5M

a. Flour, flower, flown
b. Now, hope crown
c. Mood, blood, food
d. Said, paid, maid
e. Seen, keep, beer

OR

Write the phonemic symbol of the underlined letters of the given words.

a. Again
b. Weather
c. Pleasure
d. Play
e. Mouth

2. Mark the stress for any FIVE of the following words. 5x1=5M

a. Again
b. Confusion
c. Engineer
d. Behaviour
e. Conduct(N)
f. University
g. College
h. Omit

3. Mark and name the tone for any FIVE of the following sentences. 5x1=5M

a. She is not my friend.
b. When did you move to Vizag?
c. What a pleasant surprise!
d. Where is your bike?
e. Do you play cricket?
f. I want to go home.
g. Please open the door for the guests.
h. He didn't submit the project, did he?

III. Answer all the TEN questions:

1. Insert the correct word to any TWO of the sentences given in brackets : **½ x2=1M**

a. Each of the sisters **(is / are)** clever.
b. The quality of the mangoes **(were / was)** not good.
c. The man, unlike the woman **(is / are)** here tonight.
d. Neither Hari nor Ravi **(have / has)** come.

2. Select any TWO of the modal forms from the options that best completes the sentence. **½ x2=1M**

a. Ted's flight from Amsterdam took more than 11 hours. He **can/must** be exhausted after such a long flight.
b. Susan **might not/could not** hear the speaker because the crowd was cheering so loudly.
c. The passengers **must/could** wear their seat belts at all times.
d. I **can/may** play guitar very well.

3. Choose an appropriate article given in brackets to complete the sentences: **½ x3=1½M**

a. ____ (An/a) apple a day keeps the doctor away.
b. ____ (The/An) ink in my pen is red.
c. ____(The/An) church on the corner is progressive.

4. Select the correct preposition to complete the sentences. **½ x3=1½M**

a. We cried to the man on the ladder, "Hang _____!".(on /out)
b. His performance has been _____ (under / below) average this year.
c. There are cherry trees all _____ (along / aside) the road.

5. Fill in any FIVE of the blanks with suitable verb forms given in brackets. **5x1=5M**

a. The train _____ (leave) the station, before I reached there.
b. English _____ (speak) all over the world.
c. If he _____ (work) hard, he would have passed in first division.
d. Don't disturb me, I _____(do) my homework.
e. Leela as well as Radha _____ (be) here.
f. Pooja _____ (sing) when I visited her.
g. My mother always _____ (cook) food.
h. If you go now you _____ (catch) the train.

6. Add Question Tags to any FIVE of the following sentences. **5X1=5M**

a. She draws a beautiful picture, _____?
b. We came home late last night, _____?
c. No one will hear us, _____?
d. Your uncle goes jogging every day, _____?
e. The authorities will see to the problem, _____?
f. You came by train, _____ ?
g. He never drinks alcohol, _____ ?

7. Convert any THREE of the following sentences into passive voice. **3X1=3M**

a. My sister will cook dinner tonight.
b. Give him some money
c. The doctor asked us many questions
d. Did you understand the lesson?
e. They called off the meeting.

8. Rewrite any THREE of the following sentences in indirect speech. **3x1=3M**

a. You said to me, 'You must give me your email id'.
b. Sudha said to us, 'Let us go to the Upstate emporium today'.
c. Mohan said to me, 'Don't put your things here'.
d. I said to her, 'Will you teach me knitting?'
e. They said to me, 'Oh, we are delighted to be in your class!'

9. Fill in the blanks with suitable degrees to the following words. **3x1=3M**

POSITIVE	COMPARATIVE	SUPERLATIVE
a.	More beautiful	Most beautiful
b. pretty		prettiest
c. bad	worse	

10. Correct any FIVE of the following underlined/italicized part of the sentences. **5X1=5M**

a. The news *are* good.
b. My bicycle is inferior to *your.*
c. The four men quarreled with *each other*.
d. We went to Delhi *in* train.
e. I prefer tea *than* coffee.
f. Where *is* the scissors?
g. He said that he *is* young.

IV. Rewrite the following paragraph, making corrections in spelling for the underlined words and the use of capitals and punctuation. 5M

may i have your attension please. Welcome one and all to our gallery's hundredth solo exhibition on this happy ocassion we are very pleased to present before you a truly remarkable set of paintings that are being exhibited for the first time.

V. Answer the TWO questions from 1&2 with internal choice:

1. Answer any ONE of the following questions in 150 words: **1x8=8M**

a. Write an essay on the benefits of positive attitude.
b. What are some things you feel you can be more positive about in your present life? Why do you feel this way? What can you do to make yourself adopt a more positive attitude with regard to these things?
c. Define Emotional Intelligence and discuss the qualities of emotionally intelligent people.

2. Write a telephone conversation for any ONE of the following contexts**.** **5M**

a. Write a telephone conversation between a hotel receptionist and a customer to get a reservation for a suite /room.

OR

b. Fill in the blanks in the transcript of the telephone conversation with suitable responses and expressions.

Friend A: Hello, may I talk to Amish, I am his classmate Rohan.

Friend B: _____.

Friend A: How wonderful! You picked up the phone.

Friend B: _____.

Friend A: I just called to seek your help. You know I had been absent from school for so many days. So I want to be updated.

Friend B: Sure! Well, in English _____. Similarly, in Math also we have done one and half chapters more. In social science, we have not done much as the madam herself was on leave. And on Monday is the test of Science, chapter 8.

Friend A: _____. I think as for the test, the teacher will exempt me as I was on leave.

Friend B: I think so. How was your trip to Europe?

Friend A: _____. I had a great fun travelling so many wonderful countries. OK. Thanks. See you on Monday.

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Semester - III

COURSE STRUCTURE

Academic Year	2020-21
Title of the paper	General English
Semester	III
Course code	ENG 301C
CIA marks	30
Semester End Marks	70
Total Marks	100
Year of Introduction	2017-18
Year of Revision	2019-20
% of revision	20%

Academic Year 2020-21

Changes made in the syllabus

III SEMESTER

GENERAL ENGLISH -III

Course content suggested by APSCHE	Additions	Deletion
Unit – I **PROSE** 1. Shyness My Shield (Taken from *The Story of My Experiments with Truth)* - M.K. Gandhi 2. Aurangzeb's Letter To His Teacher 3. A Letter From Abraham Lincoln To His Son's Teacher **Unit – II** **POETRY** 1. Once Upon a Time - Gabriel Okara 2. Our Casuarina Tree - Toru Dutt **Unit – III** **SHORT STORY** 1. The Open Window – Saki (H.H.Munro) 2. The Beloved Charioteer - Shashi Deshpande **Unit – IV** **ONE ACT PLAY** *Kanyasulkam,*(Acts I & II) – Gurajada Apparao **Unit – V** **LANGUAGE ACTIVITY** ***1. Classroom and Laboratory Activities*** i. JAM Sessions ii. Note Taking iii. Reporting for the Media iv. Expansion of an idea ***2. Classroom Activity*** i. Information Transfer – Tables, Bar Diagrams, Line Graphs, Pie Diagrams, Flow Charts, Tree Diagrams and Pictures ii. Note Making iii. Writing for the Media	**Unit-IV** **Communicative and Competitive English** 1. Composition i. Use of passive structures to write reports ii. Recognize& write emails iii. Develop hints by farming sentences & write paragraphs iv. Read texts using higher order thinking skills (academic reading comprehension)	**Nil**

In Unit – VI of COMMUNICATIVE AND COMPETITIVE ENGLISH, the topic **COMPOSITION** is incorporated in the syllabus. This topic focuses on sensitizing the students to improve one's own writing skills.

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ENGLISH	ENG 301C	2020-2021	B.A,B.Com &B.Sc

SEMESTER – III (CBCS)

PAPER – II

Year-II **Semester-III** **Subject: General English** **Year 2020-21**

Unit – I
PROSE
1. Shyness My Shield (Taken from *The Story of My Experiments with Truth)* - M.K. Gandhi
2. Aurangzeb's Letter To His Teacher
3. A Letter From Abraham Lincoln To His Son's Teacher

Unit – II
POETRY
1. Once Upon a Time - Gabriel Okara
2. Our Casuarina Tree - Toru Dutt

Unit – III
SHORT STORY
1. The Open Window – Saki (H.H.Munro)
2. The Beloved Charioteer - Shashi Deshpande

Unit – IV
ONE ACT PLAY
Kanyasulkam,(Acts I & II) - GurajadaAppa Rao

Unit – V
LANGUAGE ACTIVITY
1. *Classroom and Laboratory Activities*
- i. JAM Sessions
- ii. Note Taking
- iii. Reporting for the Media
- iv. Expansion of an idea

2. *Classroom Activity*
- i. Information Transfer – Tables, Bar Diagrams, Line Graphs, Pie Diagrams, Flow Charts, Tree Diagrams and Pictures
- ii. Note Making
- iii. Writing for the Media

Unit – VI
COMMUNICATIVE AND COMPETITIVE ENGLISH
1. COMPOSITION
- i. Use passive structures to write reports
- ii. Recognize& write emails
- iii. Develop hints by framing sentences & write paragraphs
- iv. Read texts using higher order thinking skills (academic reading comprehension)

Note: In classroom instruction it may be ensured that the theoretical and practical components of CSS-II complement the language activity in this semester.

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ENGLISH	ENG 301C	2020-2021	B.A,B.Com & B.Sc

The Pattern of the Question Paper for Semester – III: ENG 301C

Section - A

I. Answer any TWO of the following in 75 words each. **2x5 = 10**

(4 paragraph questions from Prose)

II. Answer any TWO of the following in 75 words each. **2x5 = 10**

(4 paragraph questions from Poetry)

III. Answer any TWO of the following in 75 words each. **2x5 = 10**

(4 paragraph questions from Short Story)

IV. Answer any TWO of the following in 75 words each. **2x5 = 10**

(4 paragraph questions from One-Act Play)

Section – B

(Language Activity)

V. Read the following diagram and answer the questions that follow. **5M**

(Table/Pie-Chart/Bar Graph/ Tree Diagram/ Flow Chart, etc.,)

VI. Read the following passage and prepare a note. **5M**

VII. Describe the picture in not less than 5 sentences. **5M**

(A picture to be given)

VIII. Expand one of the following into a paragraph. **5M**

(Three proverbs to be given)

IX. Brainstorm one of the topics and show it in a diagram. **5M**

(Three topics to be given)

X. Develop the given ideas into a paragraph of 100 words. **5M**

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ENGLISH	ENG 301C	2020-2021	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 70**

Question Paper Model

Section – A

I. Answer any TWO of the following in about 75 words each. 2x5=10M

1. Write a note on Gandhi's last effort to make a public speech in England.
2. What was the result of Gandhi's attempt to speak at a meeting for the promotion of vegetarianism?
3. How is the teacher expected to inculcate honesty and worldly wisdom in the child according to Lincoln?
4. How does Aurangzeb pinpoint the lapses of his former teacher and what should Mullah Sahe have taught Aurangzeb?

II. Answer any TWO of the following in about 75 words each. 2x5= 10M

1. Why do you think the poet has used the title, 'Once Upon a Time'?
2. I have learned to wear many faces – Comment from your study of the poem 'Once Upon a Time'.
3. Why does the memory blind Toru Dutt with tears?
4. How does Dutt connect the tree to the memory of distant land?

III. Answer any TWO of the following in about 75 words each. 2x5= 10M

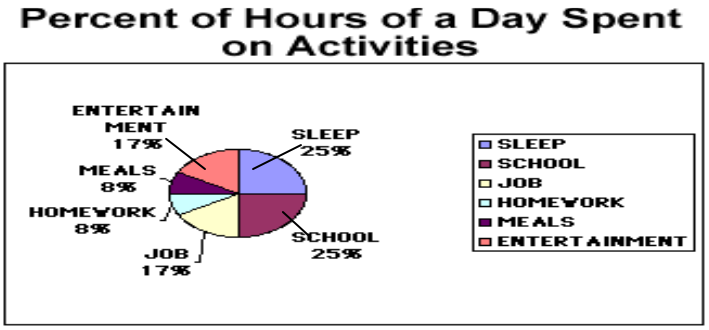
1. Describe how the title of the story "The Open Window" relates to the themes of the story itself.
2. Is Vera an antagonist or a protagonist? Explain.
3. Give an account of mother's nature and behaviour depicted in "My beloved Charioteer".
4. Explain the bond of mother and daughter in the context of "My beloved charioteer".

IV. Answer any TWO of the following in about 75 words each. 2x5= 10M

1. Talking to me itself is an education! – Explain with reference to your study of Kanyasulkam.
2. Write about Girisam's plan to go to the village of Venkatesam.
3. What were the books Venkatesam was asked to purchase?
4. Write a note on the English conversation between Girisam and Venkatesam.

Section – B

V. Read the following chart and answer the questions that follow. **5x1=5M**



a. Which two activities took up half of the time of the day?
b. Which two activities took up the least amount of time?
c. Which of the activities took up one fourth of the day?
d. What percent of the day does homework take up?
e. How many hours does the he spend in the school?

VI. Read the following passage and prepare notes. **5M**

Early rising is the secret for a happy life. We all wish to live long but we cannot. We go against Nature. Nature likes us to work during day and to rest at night. But we do not obey this law of Nature. We do not go to bed early. We read or write late into night. Some of us keep playing, dancing and drinking whole night. So, we do not rise early. Our health breaks down and we fall ill. Nature takes revenge. We have to suffer for our disobedience. But birds and animals are healthy. They do not need a doctor every day. They sleep early and rise early. Early rising is the secret of health. But if you like to rise early, you must go to bed early. This simple habit will give everything. So, it is said: "Early to bed and early to rise makes a man healthy, wealthy and wise."

VII. Describe the picture in not less than 5 sentences. **5M**

VIII. Expand one of the following into a paragraph. **5M**

1. Where there is a will there is a way.
2. Slow and steady wins the race.
3. A friend in need is a friend in deed.

IX. Brainstorm one of the topics and show it in a diagram. **5M**

1. Corruption 2. Yoga 3. Motherhood

X. Develop the ideas given below into a paragraph of 100 words. **5M**

A sheperd's son – father goes out – asks son to look after sheep – son naughty – shouts wolf –other shepherds run to help – no wolf – boy says it was a joke – they go away – after some time – boy shouts again wolf – the shepherds come a second time – no wolf – they scold him and leave – wolf really comes – boy calls for help – none comes – wolf takes away sheep – father comes and shouts at the boy – moral.

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A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS), VUYYURU

DEPARTMENT OF ENGLISH

BOARD OF STUDIES MEETING

COMMUNICATION SKILLS AND SOFT SKILLS

VENUE

ENGLISH LANGUAGE LABORATORY

DATE

12th June, 2020

Minutes of the meeting of Board of studies in the Foundation Courses titled "Communication Skills and Soft Skills" for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held on 12-06-2020 in the English Language Laboratory at 1:00 pm.

Ms G.Soni ... Presiding

Members Present:

1)..... **(G.SONI)**	Chairman	Head, Department of English AG & SG S Degree College Vuyyuru-521165
2)..... **(Dr.E.DILEEP)**	University Nominee	Professor, Department of English Krishna University, Machilipatnam.
3)..... **(Dr.V.PALA PRASADA RAO,)**	Academic Council Nominee	Lecturer, Department of English JKC College, Guntur.
4)..... **(Sri M.VINCENT PAUL)**	Academic Council Nominee	Head, Department of English Sir C.R.Reddy College, Eluru
5)..... **(B.BULLI BABU)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru-521165
6)..... **(M.ROJA)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru-521165
7) R.V.V. Aparna. **(R.V.V.APARNA)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru – 521165
8) ..... **(Dr.G.PRIYANK VARMA)**	Member	Assistant Professor, Department of English, SRM University, Amaravati – A.P.
9) Megha Grace M 12/6/2020 **(MEGHANA GRACE MICHEAL)**	Member	Soft skills Trainer, Payroll Officer, HSBC HDPI, Hi-tech City, Hyderabad.

Agenda for B.O.S Meeting of the Foundation course in Communication Skills and Soft Skills for III SEMESTER for the Academic Year 2020-21

The following proposals are submitted as a part of the agenda for the consideration and approval of the honorable members of Board of Studies, at the meeting held on 12th June, 2020.

1. To recommend syllabi of CSS for 3rd semester of II Degree students of all disciplines for the Academic Year 2020-21.
2. To recommend the Model Question Paper of CSS for 3rd semester of II Degree of all disciplines for the Academic Year 2020-21.
3. To recommend the Guidelines to be followed by the question paper setters in CSS for the 3rd semester-end exams of II Year students of all disciplines.
4. To recommend the teaching and evaluation methods to be followed under Autonomous status.
5. Any suggestions regarding Certificate/Add-on Courses, Seminars, Workshops, Guest Lectures and student competitions to be organized.
6. Any other matter.

RESOLUTIONS

1. Discussed and recommended the syllabi of CSS for 3rd Semester of Second Degree of all disciplines for the approval of the Academic Council.
2. Discussed and recommended the model question papers of CSS for 3rd Semester of Second degree of all disciplines for the approval of the Academic Council.
3. Discussed and recommended the guidelines to be followed by the question paper setters of CSS for 3rd Semester of second degree students of all disciplines for the approval of the Academic Council.

   [Note: A consolidated list of Vocabulary is enclosed for the use of the Question paper setters]
4. Discussed and recommended the following teaching and evaluation methods for approval of Academic Council.

Teaching methods:

Besides the conventional methods of teaching (The Direct Method, The Structural Approach), Grammar-Translation Method, Audio-lingual Method, Communicative Language Teaching (CLT), Task-Based Language Learning etc,. are practiced. We use modern technology i.e. using of an LCD projector, display on U boards, you tube videos etc., for better understanding of concepts.

Evaluation of a student is done by the following procedure:

Semester-End Examinations:

i) The maximum marks for Semester-End examinations shall be 50 marks and duration of the examination shall be 2 Hours.

ii) Semester-End examinations shall be conducted in theory papers at the end of every semester.

5. Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to enhance the knowledge of students besides conducting Certificate Courses on Spoken English, Soft Skills and Competitive English. It has been suggested that the Certificate Courses may be feasible to the interested students of all disciplines of II years and the resource person may be a Guest Faculty to handle the classes regularly beyond the curriculum. All these recommendations have been forwarded for the approval of the Academic Council.

6. The Department shall adapt the changes made by Krishna University and APSCHE if any, in the later period deviating by 20% which is admissible in autonomy.

7. If any changes in CSS syllabus (CSS-I) are made by Krishna University/APSCHE, the same syllabus shall be incorporated as per the guidelines.

Signatures of the BOS Members:

Dr.E.DILEEP
(University Nominee)

Dr.V.PALA PRASADA RAO
(Academic Council Nominee)

(Sri M.VINCENT PAUL)
(Academic Council Nominee)

B.BULLI BABU
(Member)

M.ROJA
(Member)

R.V.V.APARNA
(Member)

Dr.G.PRIYANK VARMA
(Member)

MEGHANA GRACE MICHAEL 12/6/2020
(Member)

Chairman

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE, VUYYURU

(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam.)

Accredited at 'A' Grade by NAAC

CSS	CSS 301C	2020-2021	B.A,B.Com &B.Sc

B.A., B.Com. and B.Sc.

COMMUNICATION AND SOFT SKILLS

SYLLABUS

Semester – III

Unit I: Pronunciation - 1

The Sounds of English

Unit II: Pronunciation – 2

1. Word Accent
2. Intonation

Unit III: Speaking Skills -1

1. Conversation Skills
2. Interview Skills
3. Presentation Skills
4. Public Speaking

Unit IV: Speaking Skills -2

1. Role Play
2. Debate
3. Group Discussion

Unit V: Writing Skills

1. Spelling
2. Punctuation
3. Report Writing

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CSS	CSS 301C	2020-2021	B.A,B.Com & B.Sc

Time: 2 hours **Max Mark: 50**

The Pattern of the Question Paper for Semester – III: CSS 301C

I. Identify the correct spelling to the given phonemic transcription from the choices given below. **5x1=5M**
(5 Transcriptions to be given)

II. Write the Phonemic symbol of the underlined letters of the given words. **5x1=5M**
(5 words to be given)

III. Mark the stress for any FIVE of the given words. **5x1=5M**
(8 Words to be given)

IV. Mark the tone for any FIVE of the given sentences. **5x1=5M**
(8 Sentences to be given)

V. Answer any TWO of the given questions. **2x5=10M**

a) A conversation on different contexts and situations. (5 lines to be written)
b) Fill in the blanks in the transcript of the interview with suitable responses and expressions. (5 blanks to be filled in a given conversation)
c) Write a paragraph in about 75 words of introducing someone by the student.
d) Prepare a brief speech to be delivered at a different occasion.

VI. Answer any TWO of the given questions. **2x5=10M**
(1 question on Matching, 1 question on Debate, 2 questions on Group Discussion)

a. Match the given expressions with the corresponding professions.
b. Prepare FIVE debate points for a given topic.
c. List out FIVE important skills needed in a group discussion.
d. List out any FIVE expressions one can use to perform different functions during a group discussion.

VII. Rewrite the given paragraph, making corrections in spelling for the underlined words and the use of capitals and punctuation. **5 M**

2 marks for Spelling (the given words must be underlined) and 3 marks for marking punctuation and the use of capitals.

VIII. Write a report to the news paper on one of the following topics. **5 M**

(Three topics to be given)

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CSS	CSS 301C	2020-2021	B.A,B.Com & B.Sc

Time: 2 hours MaxMark: 50

Model Question Paper

I. Identify the correct spelling to the following phonemic transcription from the choices given below. 5x1=5M

a) /briːð / - i) breathe ii) breath iii) breeze

b) /'keəfʊl/ - i) careful ii) clearful iii) cheerful

c) /'dɔːtə/ - i) doctor ii) daughter iii) dot

d) /'dʒuːs/ - i) dues ii) zoo iii) juice

e) /'θɪŋk/ - i) think ii) thin iii) thing

II. Write the Phonemic symbol of the underlined letters of the following words. 5x1=5M

a) again
b) ring
c) sky
d) play
e) mother

III. Mark the stress for any FIVE of the following words. 5x1=5M

a) expensive
b) photographic
c) librarian
d) machine
e) employee
f) record
g) crowd
h) opposite

IV. Mark the tone for any FIVE of the following sentences. 5x1=5M

a) She is not my friend.
b) When did you move to Vizag?
c) What a pleasant surprise!
d) Where is your bike?
e) Do you play cricket?
f) I want to go home.
g) Please open the door for the guests.
h) He didn't submit the project, did he?

V. Answer any TWO of the following questions. 2x5=10M

a) Write an imaginary conversation between a person and a bank official on opening an account in that particular bank in about five lines.

b) Fill in the blanks in the transcript of the interview with suitable responses and expressions.

Candidate: _____ Come in, Sir?
Interviewer: Yes, Please Come in and _____.
Candidate: _____ you, Sir.
Interviewer: You are nearly at the end of your degree course in B.A, aren't you?
Candidate: _____, Sir _____.
Interviewer: What's _____? Colonial History?
Candidate: No Sir. It's modern Indian History. My subject covers the period from 1950 to 1970.
Interviewer: Are you interested in taking the UPSC examination?

c) Write a paragraph in about 75 words introducing an artist at an art exhibition, hosted by your college.

d) Prepare a brief speech to be delivered at a farewell function arranged for your seniors.

VI. Answer any TWO of the following questions. 2x5=10M

a. Match the following expressions with the corresponding professions.

1.Teacher	a. Let's go to party.
2. Lawyer	b. Where do you want to go?
3. Doctor	c. You must complete the project by weekend.
4. Friend	d. How long have you been suffering?
5. Bus conductor	e. Can you please tell me how can I help you?

b. Prepare FIVE debate points for the topic "The Media is responsible for violence in society".

c. List out FIVE important skills needed in a group discussion.

d. List out any FIVE expressions one can use to perform different functions during a group discussion.

VII. Rewrite the following paragraph, making corrections in spelling for the underlined words and the use of capitals and punctuation. 5 M

may i have your attension please. Welcome one and all to our gallery's hundredth solo exhibition on this happy ocassion we are very pleased to present before you a truly remarkable set of paintings that are being exhibited for the first time.

VIII. Write a report to the news paper on one of the following topics. 5M

1. Write report on Rain Water Harvesting.
2. Write a report on how health camp was carried out in your College/Village.
3. Write a news report on a road accident you witnessed.

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A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS), VUYYURU

DEPARTMENT OF ENGLISH

BOARD OF STUDIES MEETING

GENERAL ENGLISH

VENUE

ENGLISH LANGUAGE LABORATORY

DATE

27th March, 2021

Minutes of the meeting of Board of Studies in General English for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held through ZOOM MEETING on 27-03-2021 in the English Language Laboratory at 2.00 pm.

Ms G.Soni	...	Presiding	
Members Present:			
1)..... **(G.SONI)**		Chairman	Head, Department of English AG & SG S Degree College Vuyyuru-521165
2)..... **(Dr.E.DILEEP)**		University Nominee	Professor, Department of English Krishna University, Machilipatnam.
3)..... **(Dr.V.PALA PRASADA RAO)**		Academic Council Nominee	Lecturer, Department of English JKC College, Guntur.
4)..... **(Sri M.VINCENT PAUL)**		Academic Council Nominee	Rtd. Head, Department of English Sir C.R. Reddy College, Eluru
5)..... **(B.BULLI BABU)**		Member	Lecturer in English AG & SG S Degree College, Vuyyuru-521165
6)..... **(M.ROJA)**		Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru-521165
7)..... **(R.V.V.APARNA)**		Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru – 521165
8)..... **(Dr.G.PRIYANK VARMA)**		Member	Assistant Professor, Department of English, SRM University, Amaravati – A.P.
9)..... **(MEGHANA GRACE MICHEAL)**		Member	Payroll Officer, HSBC HDPI, Hitech City, Hyderabad

Agenda for B.O.S Meeting of General English for II SEMESTER for the Academic Year 2020-21

1. Addition / deviation of syllabus from 10 % to 30 %.
2. To note the syllabi prescribed by APSCHE in July 2020, for the 2nd Semester of I Degree students of all disciplines for the Academic Year 2020-21.
3. To recommend syllabi of APSCHE for 2nd Semester of I Degree students of all disciplines for the Academic Year 2020-21.
4. To recommend the Question Paper Pattern and Model Question Paper of 2nd Semester of I Degree of all disciplines for the Academic Year 2020-21.
5. To recommend the Guidelines to be followed by the question paper setters in General English for the 2nd semester-end exams of I Year students of all disciplines.
6. To introduce Skill Development Courses as introduced by APSCHE for the admitted batch of the first year students of Semester-II for this academic year 2020-21.
7. To recommend the teaching and evaluation methods to be followed under Autonomous status.
8. To get the approval of a comprehensive academic plan of each teacher denoting the topic to be covered in a particular period.
9. Any suggestions regarding Certificate/Add-on Courses, Seminars, Workshops, Guest Lectures and student competitions to be organized.
10. Any other related matter with the permission of the chair.

RESOLUTIONS

The following is the gist of discussion took place among the members BOS – English.

1. The Curricula has to be made relevant to the local, regional, national and global developmental needs. To facilitate this exercise, an addition to the syllabus or deviation from the syllabus can be opted for. In the process of making the syllabus suitable, by means of addition and / or deviation, the structured feedback (to review and design the syllabus) has to be procured from students, teachers, employers and Alumni by IQAC and Academic coordinator. Basing on the feedback taken from these four stakeholders, the Endeavour of addition and / or deviation has to be made. As per the procedure, necessary changes are already being made in the syllabus of course II of General English (II semester) up to 20%.
2. Since the **APSCHE** has revised the syllabus under **CBCS** framework with effect from **2020-2021**, the same syllabus for General English of Semester-II **(English Praxis Course- II)** titled **'A Course in Reading & Writing Skills'** shall be implemented for the admitted batch of the first year for this academic year 2020-21with some minor changes.
3. The following recommendations are being made by the members regarding the syllabi for II Semester for the approval of the Academic Council.

- The prose lesson **'On Avoiding Foolish Opinions' by Bertrand Russell** prescribed by **APSCHE** is replaced with **Netaji Subhash Chandra Bose's Excerpt from Presidential address at the Students' Conference held at Lahore on October 19, 1929** as it addresses the students to get inspired with the one ideal of developing their character and personality and thereby rendering the most effective and useful service to the cause of their country.
- The short story **'Girls' by Mrinal Pande** has been introduced and added in **Unit-III** of short fiction since the story deals with gender issues and the lives of women in Indian society. It is a touching story which portrays the status of girls in Indian society and the prejudice against them. The author has skillfully portrays how discrimination pervades every stage of a girl's life.
- The topics **'Phrasal Verbs'** and **'Idioms'** are being introduced in **Unit – IV of Grammar**.
- The topic **'Paragraph Writing'** is being introduced in **Unit – V of Language Skills**.
- **In Unit – VI of Communicative and Competitive English the following two topics,**

➢ Resources & Environment
➢ Comprehension and Composition

are being incorporated in the syllabus. These topics focus on sensitizing the students to improve one's own reading and writing skills as well.

4. Discussed and recommended the Question paper pattern for the 2nd Semester of I Year students of all disciplines for the approval of the Academic Council.
5. Discussed and recommended the guidelines to be followed by the question paper setters of General English for 2nd semester of first degree students of all disciplines for the approval of the Academic Council.
6. Unanimously resolved to introduce and implement the syllabus of **Journalistic Reporting (**for Arts Stream) and **Business Communication (**for Commerce Stream) under **Skill Development Courses** for the admitted batch of the first year students of Semester-II for this academic year 2020-21 without any changes as made and revised by APSCHE under CBCS framework with effect from **2020-2021**.
7. Discussed and recommended the following teaching and evaluation methods for approval of Academic Council.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology i.e. using of an LCD projector, display on U boards etc, for better understanding of concepts.

There are two components in the Valuation and Assessment of a student –Internal Assessment (IA) and Semester Examinations (SE).

Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory. Out of these 30 marks, 20 marks are allocated for announced tests.
- Each IA written examination is of 1 hour 30 minutes duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks.
- Other Innovative Components will be for 5 Marks. The innovative component is for 5 marks, conducted during the class hours by the staff member/ in charge of the subject, in the form of assignments/ quiz/ seminars /presentations/Online/Open Book/Viva Voce/ Group work/ Mini Project/ Exhibition, etc. The topic and time for submission/ presentation will be announced by the staff member/ in charge of the subject in advance. Each student should explain and defend his/her presentation. For attendance 5 Marks are allotted.
- There is no passing minimum for IA.

Semester Examinations (SE)

- A student should register himself/herself to appear for the Semester Examinations by payment of the prescribed fee.
- The Semester Examinations will be in the form of a comprehensive examination covering the entire syllabus in each subject. It will be of 3 hours duration, with maximum 70 marks, irrespective of the number of credits allotted to it.
- Even though the candidate is absent for two IA exams/obtain zero marks, the external marks are considered (if he/she gets 40/70) and the result shall be declared as 'PASS'.
- The pass mark shall be 28 out of 70 in the Semester end examination.
- The maximum marks for each Paper shall be 100.

8. Getting the approval of a comprehensive academic plan of each teacher denoting the topic to be covered in a particular period. The co-curricular activities like quiz, classroom seminars, group discussion, assignments etc., which are planned during the semester have to be incorporated into the academic plan. Preparation of the annual academic calendar of the institution has to be done at the outset of the academic year, adherence to it is equallyimportant. To prepare the academic calendar of the institution, individual teaching plans of all the members of the department have to be prepared. The individual annual academic plans are taken into consideration to prepare the departmental teaching plan. Basing on the teachingplans of all the departments the annual academic plan of the institution will be prepared.
9. Discussed and recommended to organize Seminars, Guest lectures, Workshops to enhance the knowledge of students besides conducting Certificate Courses on Spoken English, Soft Skills and Competitive English. It has been suggested that the Certificate Courses may be feasible to the students (interested students) of all disciplines of II years and the resource person may be a Guest Faculty to handle the classes regularly beyond the curriculum. All these recommendations are forwarded for the approval of the Academic Council.
10. **Recommendations :**

- A consolidated list of **One Word Substitutes, Phrasal Verbs**, **Idioms,** topics for **'Paragraph Writing',** and **Expansion of Ideas/sayings/proverbs** are to be prepared for syllabus and sent to the question paper setter for the sem-end examinations.

- As suggested by one of the members on the BOS, the revised edition of Objective General English 2019 by S.Chand publication may be referred and practiced by the learners as over the years, this edition has earned the reputation of being one of the leading books in the subject and has helped the learners score high in the General English paper of the most competitive examinations. Moreover, with changing times and in keeping up with the modern trends in examination papers, a Question Bank has also been provided comprising questions from different competitive examinations held between 2010 and 2019. In addition, a few Full-Length Examination Papers have also been provided, with their answers, to give the learner, the experience first-hand.

Signatures of the BOS Members:

27-3-21

Dr.E.DILEEP
(University Nominee)

Dr.V.PALA PRASADA RAO
(Academic Council Nominee)

(Sri M.VINCENT PAUL)
(Academic Council Nominee)

B.BULLI BABU
(Member)

M.ROJA
(Member)

R.V.V.APARNA
(Member)

Dr.G.PRIYANK VARMA
(Member)

MEGHANA GRACE MICHAEL
(Member)

Chairman

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE, VUYYURU – 521165

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Semester - II

ENGLISH PRAXIS COURSE-II

A COURSE IN READING AND WRITING SKILLS

Course Structure and Syllabi under CBCS

Course Code	**ENGT21B**	**Course Delivery Method**	**Class Room/ Blended Mode - Both**
Credits	**03**	**CIA Marks**	**30**
No.of Lecture Hours / Week	**4**	**Semester End Exam Marks**	**70**
Total No.of Lecture Hours	**60**	**Total Marks**	**100**
Year of Introduction: 2020-21	**Year of Offering: 2020-21**	**Year of Revision: 2020-21**	**Percentage of Revision: 20%**
CLASS:	**I YEAR DEGREE (ALL COURSES)**		

OBJECTIVE: The main objective of this course is to facilitate the learners to acquire the linguistic competence essentially required in a variety of life situations and develop their intellectual, personal and professional abilities.

COURSE OUT COMES: At the end of the course the learners will be able to:

CO1: Acquaint the learner with some widely used words which appeal to be similar but are semantically different and also help them to realize the importance of meanings, and understand the grammatical structures in writing. **PO7**

CO 2: Speak clearly, effectively and appropriately with correct pronunciation, pause and articulation of voice for a variety of audiences and purposes. **PO2**

CO 3: Analyze, interpret, appreciate and comprehend the specified text and the contexts in terms of their content, purpose, and form. **PO1**

CO 4: Think critically; convey their own interpretations, perspectives, producing new creative and artistic works following grammatical structures in oral and written assignment. **PO7**

CO 5: Write effectively for a variety of professional and social settings adapting other writer's ideas as they explore and develop their own. **PO3**

Academic Year 2020-21

Changes made in the syllabus

Semester-II General English

Course content suggested by APSCHE	Additions	Deletion
Unit – I - Prose: 1. On Avoiding Foolish Opinions' 2. The Night Train at Deoli - 3. The Doll's House **Unit – II - Poetry** 1. Upagupta 2. Coromandel Fishers 3. Ode to the West Wind **Unit –III** **Short Fiction (Short Story)** 1. An Astrologer's Day 2. Florence Nightingale- Abrar Mohsin **Unit – IV Grammar** 1. Vocabulary: Conversion of Words 2. One Word Substitutes 3. Collocations 4. Note Making/Taking **Unit – V** **Language Skills** 1. Notices, Agendas and Minutes 2. Expansion of Ideas and Paragraph Writing 3. Curriculum Vitae and Resume 4. Official Letters 5. E-Correspondence	**Unit – I** **Prose:** *1.* Netaji Subhas Chandra Bose on students & politics: Every problem is related to politics *(An Excerpt from Presidential address at the Students' Conference held at Lahore on October 19, 1929)* **Unit –III** **Short Fiction (Short Story)** 1. Girls – Mrinal Pande **Unit – IV Grammar** 1. Phrasal Verbs and Idioms **Unit – VI** **Communicative and Competitive English** 1. Resources & Environment 2. Comprehension and Composition	**Unit – I** **Prose:** On Avoiding Foolish Opinions

1. The prose lesson **'On Avoiding Foolish Opinions' by Bertrand Russell** prescribed by **APSCHE** is replaced with **Netaji Subhash Chandra Bose's Excerpt from Presidential address at the Students' Conference held at Lahore on October 19, 1929** as it addresses the students to get inspired with the one ideal of developing their character and personality and thereby rendering the most effective and useful service to the cause of their country.
2. The short story **'Girls' by Mrinal Pande** has been introduced and added in **Unit-III** of short fiction since the story deals with gender issues and the lives of women in Indian society. It is a touching story which portrays the status of girls in Indian society and the prejudice against them. The author has skillfully portrays how discrimination pervades every stage of a girl's life.
3. The topics **'Phrasal Verbs'** and **'Idioms'** are being introduced in **Unit – IV of Grammar**.
4. The topic **'Paragraph Writing'** is being introduced in **Unit – V of Language Skills**.
5. **In Unit – VI of Communicative and Competitive English the following two topics,**

- Resources & Environment
- Comprehension and Composition

are being incorporated in the syllabus. These topics focus on sensitizing the students to improve one's own reading and writing skills as well.

English Syllabus-Semester-II

English Praxis Course-II

A Course in Reading & Writing Skills

Course Learning Outcomes

By the end of the course the learner will be able to:

CO 1: Use reading skills effectively and comprehend /Interpret different texts.
CO 2: Analyze what is being read and use good writing strategies.
CO 3: Build up a repository of active vocabulary and apply it to everyday situations.
CO 4: Improve writing skills independently for future needs and purposes.

Unit – I

Prose: 12 Hrs

1. Netaji Subhas Chandra Bose on students & politics: Every problem is related to politics *(An Excerpt from Presidential address at the Students' Conference held at Lahore on October 19, 1929)*
2. The Night Train at Deoli - Ruskin Bond
3. The Doll's House - Katherine Mansfield

Unit – II

Poetry: 12 Hrs

1. Upagupta - Rabindranath Tagore
2. Coromandel Fishers- Sarojini Naidu
3. Ode to the West Wind - P B Shelley

Unit –III

Short Fiction (Short Story):12 hrs

1. An Astrologer's Day- R K Narayan
2. Girls – Mrinal Pande
3. Florence Nightingale- Abrar Mohsin

Unit – IV

Grammar: 12Hrs

1. Vocabulary: Conversion of Words
2. One Word Substitutes
3. Collocations
4. Phrasal Verbs and Idioms
5. Note Making/Taking

Unit – V

Language Skills: 12 Hrs

1. Notices, Agendas and Minutes
2. Expansion of Ideas and Paragraph Writing
3. Curriculum Vitae and Resume
4. Official Letters
5. E-Correspondence

Unit – VI

Communicative and Competitive English: 12 Hrs

1. Resources & Environment
2. Comprehension and Composition

27-3-21

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ENGLISH	ENG PRAXIS 201C	2020-2021	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 70**

Course: General English **Course Code: ENG PRAXIS 201C**
Course Title: English Praxis II **Semester: II**

The Pattern of the Question Paper for Semester – II: ENG PRAXIS 201C

Section-A

I. Answer any THREE of the following in 50 words each: **3x4=12M**
(2 paragraph questions from each Prose lesson = 6)
II. Answer any THREE of the following in 50 words each: **3x4=12M**
(2 paragraph questions from each Poem = 6)
III. Answer any THREE of the following in 50 words each: **3x4=12M**
(2 paragraph questions from each Short Story = 6)

Section – B
(Grammar)

IV. Answer all the questions:

1. Fill in the blanks with the appropriate form of the words given in the brackets. (Conversion of words) **4x½=2M**
2. Choose the correct alternative which can be substituted for the given sentence. **4x½=2M**
3. Choose the best answer to fill the gap in each of the given sentences. **4x½=2M**
4. Fill in the appropriate form of one of the Phrasal Verbs from the given box. **4x1=4M**

   OR

   Use the given expressions in your own sentences.
   (Internal choice must be given between Phrasal Verbs and Idioms)
5. Read the given passage and make notes: **4M**

Section – C
(Language Activity)

V. Answer all the questions:

1. Prepare agenda/minutes/notice on the given context. **4M**
2. Expand your ideas on the given topic. **4M**

   OR

   Write a paragraph on the given topic.
   (Internal choice must be given between expansion of proverb and paragraph writing)
3. Prepare curriculum vitae in response to the given advertisement. **4M**
4. Letter writing to the given context. (only formal/official letters) **4M**
5. E-mail writing to the given context. **4M**

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ENGLISH	ENG PRAXIS 201C	2020-2021	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 70**

Course: General English **Course Code: ENG PRAXIS 201C**
Course Title: English Praxis II **Semester: II**

Model Question Paper

SECTION –A

I. Answer any THREE of the following questions in about 50 words each. 3x4=12M

1. Summarize the main points of Subhash Chandra Bose's address to students.
2. 'If, in India, students do not take active part in politics, from where are we to recruit our political workers and where are we to train them?' Explain it with reference to Bose's speech.
3. How was the narrator's second meeting with the girl different from his first Meeting in the story "The Night Train at Deoli"?
4. How does Katherine Mansfield present the conflict between innocence and experience through her short story?
5. Sketch the character of Kezia.

II. Answer any THREE of the following questions in about 50 words each. 3x4=12M

1. What is the theme of the poem Upagupta?
2. Why do you think that the ascetic did not accept the invitation of the dancing girl?
3. Analyse the poem 'Coromandel fishers' as the symbol of freedom struggle?
4. Why do the fishermen consider the sea as their mother in the poem "Coromandel Fishers"? Discuss.
5. Examine the evolution of thought in Shelley's "Ode to the West wind"
6. What qualities of the West Wind are glorified in Shelley's "Ode to West Wind"?

III. Answer any THREE of the following questions in about 50 words each. 3x4=12M

1. What is the irony of the story the astrologer's day?
2. Sketch the character of the astrologer.
3. What is the relevant socio- historical background of Girls by Mrinal Pande?
4. Keeping in view the story "Girls", comment on the social setup of Indian society.
5. Explain why Mr. and Mrs. Nightingale considered the nursing profession an unsuitable career for Florence.
6. Write a note on the important contributions of Florence Nightingale.

SECTION-B

IV. Answer all the questions:

1. Fill in the blanks with the appropriate form of the words given in the brackets. **4x½=2M**

a. Mr. Parks' lessons are really_____. I hate his lessons. (bore)
b. My sisters are very_____. (ambition)
c. I am so_____that we are going to New York tomorrow. (excite)
d. Women wear these skirts_____. (tradition)

2. Choose the correct alternative which can be substituted for the below given sentence. **4x½=2M**

a. An examination of a dead body is called as _____
   - Autopsy
   - Morgue

b. A person who eats too much is called as _____
   - Glutton
   - Cannibal

c. A physician who diagnoses and interprets the changes caused by disease in tissues and body fluids _____
   - Optometrist
   - Pathologist

d. A person who talks in sleep is called as _____
   - Somniloquist
   - Somnambulist

3. Choose the best answer to fill the gap in each of the following sentences. **4x½=2M**

a. The meeting took almost five hours so it was impossible to *pay/keep/have* attention all the time.
b. It took us all day to clean up the office after the burglary – the thieves *made/ took/ had* a terrible mess.
c. I don't think we should *make/hold/create* a decision yet; we should wait.
d. Only 31% of the students who *had/took/wrote* the final exam passed it.

4. Fill in the appropriate form of one of the phrasal verbs from the box below. 4x1=4M

a. I looked for my keys everywhere but I couldn't_____where I put them.
b. Although he tried to eat less he_____ some weight during the holidays.
c. Our plane_____an hour late because of the fog.
d. My son drove me crazy about buying a new bike, so finally I_____.

(figure out, give in, put on, take off)

OR

Use the following expressions in your own sentences.

a. A blessing in disguise
b. Once in a blue moon
c. Turn a blind eye
d. Weather the storm

5. Read the following passage and make notes: 4M

Naval architects never claim that a ship is unsinkable, but the sinking of the passenger-and-car ferry Estonia in the Baltic surely should have never have happened. It was well designed and carefully maintained. It carried the proper number of lifeboats. It had been thoroughly inspected the day of its fatal voyage. Yet hours later, the Estonia rolled over and sank in a cold, stormy night. It went down so quickly that most of those on board, caught in their dark, flooding cabins, had no chance to save themselves: Of those who managed to scramble overboard, only 139 survived. The rest died of hypothermia before the rescuers could pluck them from the cold sea. The final death toll amounted to 912 souls. However, there were an unpleasant number of questions about why the Estonia sank and why so many survivors were men in the prime of life, while most of the dead were women, children and the elderly.

SECTION-C

V. Answer all the questions:

1. Prepare an agenda and minutes informing the holding of Board of Directors meeting regarding a new project to be taken up. **4M**

2. Expand your ideas on the topic *'A stitch in time saves nine'*. **4M**

OR

Write a paragraph on *'The impact of Corona in the present scenario'*.

3. Prepare a curriculum vitae in response to the advertisement below: **4M**

Unilever, Vijayawada has a vacancy for a Junior Sales Manager to work in the area of sales and marketing, particularly with our household product lines. Applicants should have previous experience in the area of sales and marketing, as well as an excellent command of English, appropriate computer skills, and a full current driving license.
Applications, including full curriculum vitae and references need to send to:
Mr. Santhosh Gummadi, Personnel Manager, UNILEVER India, Vijayawada -10,
Closing date: 17 December 2021

4. Write a letter to the editor of the newspaper "The Hindu" narrating the inefficient administration of your municipality regarding sanitation in your area. **4M**

5. Write an email letter to you librarian – agsgsclibrary@gmail.com requesting him to renew the date of the books you have borrowed as you are unable to travel to college. **4M**

****

Since the **APSCHE** has revised the syllabus under CBCS framework with effect from **2020-2021**, the following syllabus of **Journalistic Reporting (**for Arts Stream) and **Business Communication (**for Commerce Stream) under **Skill Development Courses** shall be implemented for the admitted batch of the first year of Semester-II for this academic year 2020-21without any changes. Under **Life Skill Courses**, a paper titled **"Entrepreneurship"** is being shared and taught for the Second Year students of IV Semester as per the workload of the Department. A consolidated list of questions of these 3 papers shall be prepared and sent to the Question Paper Setter. This change has been brought to the notice of the BOS Members through mail /phone call and their consent is being taken.

SYLLABUS

B.A., B. Com & B. Sc Programmes

Revised CBCS w.e.f 2020-21

SKILL DEVELOPMENT COURSE

Arts Stream (II SEMESTER)

Title: JOURNALISTIC REPORTING

Total 30 hrs (02 h/wk, 02 Cr & Max 50 Marks)

Course Outcomes:

After successful completion of this course, the student will be able to:

1. *Understand the evolution of journalism with a focus on its development in India.*
2. *Comprehend the role of Press in the Indian democracy and various reporting methods.*
3. *Realise the ethical aspects of Journalism in India*
4. *Develop basic writing skills for news papers, Radio and Television.*

Syllabus:

Unit-I: 06 Hrs

Introduction to Journalism-Nature, Growth and Development in post independence era -Print Media, Mass Media and Electronic Media, Press as a Fourth Estate-Role of Press in Democracy.

Unit-II: 10 Hrs

Concept of News-News Values-Sources of News - News gathering ways: Press Conferences, Press Releases, Events, Meets, Interviewing-Types of Interviews and Interviewing Techniques- Methods of News Writing: Leads, News Stories and Body Development.

Unit-III: 10 Hrs

Reporting-Kinds of Reporting-Objectives, Interpretative, Investigative, Legal, Developmental, Political, Sports, Crime, Economic, Commercial, Disaster, Technical and Scientific Reporting-Writing Special features: Photo features, Human interest features, Profiles, Column Writing, Writing for Radio and Television-Values and Ethics of Journalism.

Co-curricular Activities Suggested: (04 Hrs)

1. Collection and study of various English and Telugu Newspapers
2. Invited lecture/basic training by local experts
3. Visit to local Press office
4. Informally attending Press Conferences and Meets and taking notes
5. Assignments, Group discussion, Quiz etc.

Reference Books:

1. Mencher Melvin, News Reporting and Writing, 1997, Columbia University Press.
2. Mazumdar Aurobindo, Indian Press and Freedom Struggle, 1993, Orient Longman.
3. Barun Roy, Beginners Guide to Journalism and Mass Communication, V&S Publishers, New Delhi.
4. Kamath M.V, Professional Journalism,1983,Vikas Publishers, New Delhi.
5. Carole Fleming, Emma Hemmingway, Gillian Moore and Dave Welford, 2006,SAGE Publications India Pvt.Ltd, New Delhi
6. Websites on Journalistic Reporting.

SKILL DEVELOPMENT COURSES

Arts Stream (II SEMESTER)

Title: JOURNALISTIC REPORTING

MODEL QUESTION PAPER & PATTERN

Max Marks: 50 Time: 1 ½ hr (90 Min**)**

SECTION A (Total: 4x5=20 Marks)

(Answer any four questions. Each answer carries 5 marks
(At least 1 question should be given from each Unit)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

SECTION B (Total: 3x10 = 30 Marks)

(Answer any three questions. Each answer carries 10 marks
(At least 1 question should be given from each Unit)

1.	
2.	
3.	
4.	
5.	
6.	

@@@@@

SYLLABUS

B.A., B. Com & B. Sc Programmes

Revised CBCS w.e.f 2020-21

SKILL DEVELOPMENT COURSE

Commerce Stream (II Semester)

Title: BUSINESS COMMUNICATION

Total 30 hrs (02hrs/wk), 02 Credits, Max 50 marks

Learning Outcomes:

After successful completion of this course, students will be able to;

1. *Understand the types of business communication and correspondence*
2. *Comprehend the processes like receiving, filing and replying*
3. *Acquire knowledge in preparing good business communications*
4. *Acquaint with organizational communication requirements and presentations*.

SYLLABUS

UNIT I : 06hrs

Introduction and Importance of communication an overview - meaning and process of communication - organizational communication and its barriers.

UNIT II: 10hrs

Types of Business Communications –Categories, methods and formats - Business vocabulary - Business idioms and collocations – Organizational Hierarchy - Various levels of communication in an organization – Top-down, Bottom-up and Horizontal-Business reports, presentations– Online communications.

UNIT III: 10hrs

Receiving business communications -Filing and processing -Sending replies. Routine cycle of communications – Writing Communications - Characteristics of a good business communication -Preparation of business meeting agenda – agenda notes - minutes –circulation of minutes – Presentations of communication using various methods.

Recommended Co-curricular Activities (04hrs):

1. Collection of various model business letters
2. Invited lecture/field level training by a local expert
3. Reading of various business reports and minutes and its analysis
4. Presentations of reports, charts etc.
5. Assignments, Group discussion, field visit etc.

Reference books:

1. Chaturvedi. P.D.Chaturvedi.M - Business Communication concepts, Cases and applications - Pearsons Education
2. Kaul Asha - Effective Business Communication - PHI Learning pvt Ltd
3. www.swayam.gov.in
4. Websites on business communication

SKILL DEVELOPMENT COURSES

Commerce Stream (II SEMESTER)

Title: BUSINESS COMMUNICATION

MODEL QUESTION PAPER & PATTERN

Max Marks: 50 Time: 1 ½ hr (90 Min**)**

SECTION A (Total: 4x5=20 Marks)

(Answer any four questions. Each answer carries 5 marks(At least 1 question should be given from each Unit)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

SECTION B (Total: 3x10 = 30 Marks)

(Answer any three questions. Each answer carries 10 marks

(At least 1 question should be given from each Unit)

1.	
2.	
3.	
4.	
5.	

@@@@@

A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS), VUYYURU

DEPARTMENT OF ENGLISH

BOARD OF STUDIES MEETING

COMMUNICATION SKILLS AND SOFT SKILLS

VENUE

ENGLISH LANGUAGE LABORATORY

DATE

27th March, 2021

Minutes of the Meeting of Board of studies in the Foundation Course titled "Communication Skills and Soft Skills" for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held through ZOOM MEETING on 27-03-2021 in the English Language Laboratory at 3.00 pm.

Ms G.Soni ... Presiding

Members Present:

1)..... **(G.SONI)**	Chairman	Head, Department of English AG & SG S Degree College Vuyyuru-521165
2)..... **(Dr.E.DILEEP)**	University Nominee	Professor, Department of English Krishna University, Machilipatnam.
3)..... **(Dr.V.PALA PRASADA RAO)**	Academic Council Nominee	Lecturer, Department of English JKC College, Guntur.
4)..... **(Sri M.VINCENT PAUL)**	Academic Council Nominee	Rtd.Head, Department of English Sir C.R.Reddy College, Eluru
5)..... **(B.BULLI BABU)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru-521165
6)..... **(M.ROJA)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru-521165
7)..... **(R.V.V.APARNA)**	Member	Lecturer in English A.G & S.G.S Degree College, Vuyyuru – 521165
8)..... **(Dr.G.PRIYANK VARMA)**	Member	Assistant Professor, Department of English, SRM University, Amaravati – A.P.
9)..... **(MEGHANA GRACE MICHEAL)**	Member	Payroll Officer, HSBC HDPI, Hitech City, Hyderabad

Agenda for B.O.S Meeting of the Foundation course in Communication Skills and Soft Skills for IV SEMESTER for the Academic Year 2020-21

1. To implement the existing syllabi of CSS for 4th semester of II Degree students of all disciplines for the Academic Year 2020-21.
2. To implement the existing Model Question Paper of CSS for 4th semester of II Degree of all disciplines for the Academic Year 2020-21.
3. To implement the existing Guidelines to be followed by the question paper setters in CSS for the 4th semester-end exams of II Year students of all disciplines.
4. To recommend the teaching and evaluation methods to be followed under Autonomous status.
5. To implement a value added course to impart transferable skills and life skills during the IV semester.
6. To implement Certificate Course titled "Competitive English" for the II year gifted students of IV Semester.
7. Any suggestions regarding Certificate/Add-on Courses, Seminars, Workshops, Guest Lectures and student competitions to be organized.
8. Any other matter.

RESOLUTIONS

1. Resolved to implement the existing syllabus of CSS for 4th semester of Second Degree of all disciplines for the approval of the Academic Council.
2. Resolved to implement the existing model question papers of CSS for 4th semester of Second degree of all disciplines for the approval of the Academic Council.
3. Resolved to implement the existing guidelines to be followed by the question paper setters of CSS for 4th semester of second degree students of all disciplines for the approval of the Academic Council.

   Note : A consolidated list of Vocabulary is enclosed for the use of the Question paper setters
4. Discussed and recommended the following teaching and evaluation methods for the approval of Academic Council.

   Teaching methods:

   Besides the conventional methods of teaching, we use modern technology i.e. using of an LCD projector, display on U boards etc, for better understanding of concepts.

   Evaluation of a student is done by the following procedure:

   Semester-End Examinations:

   - The maximum marks for Semester-End examinations shall be 50 marks and duration of the examination shall be 2 Hours.

5. Unanimously resolved to teach a value added course paper titled **"Entrepreneurship"** to impart transferable skills and life skills for the Second Year students of IV Semester. As per the workload of the department, the paper might be taught by the department members.
6. It has been suggested that the Certificate Course titled "Competitive English" may be feasible to the gifted students of all disciplines of II year and the resource person may be a Guest Faculty to handle the classes regularly beyond the curriculum.
7. Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to enhance the knowledge of students besides conducting Certificate Courses on Spoken English, Soft Skills and Competitive English. All these recommendations have been forwarded for the approval of the Academic Council.

Signatures of the BOS Members:

27-3-21

Dr.E.DILEEP
(University Nominee)

Dr.V.PALA PRASADA RAO
(Academic Council Nominee)

(Sri M.VINCENT PAUL)
(Academic Council Nominee)

B.BULLI BABU
(Member)

M.ROJA
(Member)

R.V.V.APARNA
(Member)

Dr.G.PRIYANK VARMA
(Member)

MEGHANA GRACE MICHAEL
(Member)

Chairman

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE, VUYYURU

(An autonomous college in the Jurisdiction of Krishna University, Machilipatnam.)

Accredited at 'A' Grade by NAAC

CSS	CSS 401C	2020-2021	B.A,B.Com &B.Sc

COMMUNICATION AND SOFT SKILLS -3 (CSS -3)

FOUNDATION COURSE SYLLABUS

Semester – IV

Unit I: Soft Skills

1. Positive Attitude
2. Body Language
3. SWOT/SWOC Analysis
4. Emotional Intelligence
5. Netiquette

Unit II: Paragraph Writing and Para Jumbles

1. Paragraph Structure
2. Development of Ideas
3. Matching Para Jumbles

Unit III: Paraphrasing and Summarizing

1. Elements of Effective Paraphrasing
2. Techniques for Paraphrasing
3. What Makes a Good Summary?
4. Stages of Summarizing

Unit IV: Letter Writing

1. Letter Writing (Formal and Informal)
2. E-correspondence

Unit V: Job Application, CV and Dialogue Writing

1. Resume and CV
2. Dialogue Writing

Reference Book: English in Use –A Course in Communication Skills and Soft Skills -3, Published by Orient Black Swan

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CSS	CSS 401C	2020-2021	B.A,B.Com &B.Sc

COMMUNICATION AND SOFT SKILLS -3 (CSS-3)

FOUNDATION COURSE - Semester – IV

The Pattern of the Question Paper for CSS -3

Time: 2 Hours **Maximum Marks: 50**

SECTION - A

I. Answer any ONE of the following questions in two or three paragraphs (4 questions to be given) **1x10=10 M**

SECTION – B

II. Develop the given hints into a meaningful paragraph **1x5=5 M**

III. Matching jumbled sentences in the given columns **5x1=5 M**

SECTION – C

IV. Write a paragraph on any ONE of the given proverbs (3 proverbs to be given) **1x5=5M**

V. Write a note on the differences between a paraphrase and a summary? **1x5=5M**

(OR)

What are the stages involved in summary writing?

(Internal choice to be given between paraphrase and summary)

SECTION – D

VI. Write a letter on any ONE of the given contexts **1x5=5 M**
(3 contexts to be given)

VII. Write an e-mail on any ONE of the given contexts **1x5=5M**
(3 contexts to be given)

SECTION –E

VIII. Write a Resume/CV responding to the given advertisement **1x5=5M**

IX. Write a dialogue with FIVE exchanges on any ONE of the given contexts. **1x5=5M**

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Accredited at 'A' Grade by NAAC

CSS	CSS 401C	2020-2021	B.A,B.Com &B.Sc

COMMUNICATION AND SOFT SKILLS -3 (CSS-3)
FOUNDATION COURSE, SEMESTER – IV (CBCS)
CSS – III

Time: 2 hours **Max Mark: 50**

Model Question Paper

SECTION – A

I. Answer any ONE of the following questions in two or three paragraphs. 1X10=10M

a. What are some things you feel you can be more positive about in your present life? Why do you feel this way? What can you do to make yourself adopt a more positive attitude with regard to these things?
b. How do you define non-verbal communication? Is it different from verbal communication?
c. Aruna is twenty-one years old. She has just appeared for her final B.com examinations. She is a very sincere student and also an excellent painter. She has won many art competitions. When she graduates, her parents want her to start working because the family needs financial support. Prepare a SWOT/SWOC analysis for Aruna.
d. Define Emotional Intelligence and discuss the qualities of emotionally intelligent people.

SECTION – B

II. Develop the given hints into a meaningful paragraph. 1X5=5M

The kind of books I enjoy reading: enjoy fiction most – novels and short stories – love romances and thrillers – long hours reading – science fiction not interesting – dull – also enjoy travelogues, biographies, real—life adventures read newspapers, magazines regularly to keep myself informed – to pass time when no new book.

III. Match the jumbled sentences in Column A with Column B **5X1=5M**

A	B
1. I was put on hold for a long time. I am still waiting for John	**a.** Well, it is pretty hard for me to fall asleep when I go to bed. I also woke up many times during the night.
2. How about some soft drinks?	**b.** They will be available in two weeks. Don't stress yourself. I think everything will be OK.
3. What are you going to do during Winter break?	**c.** No, buy some bottled water instead. It is healthier for us. We need to cut down on our intake of sugar, as too much sugar is not good for our bodies.
4. I am anxious to know my cholesterol level. When will I get the results of the blood test?	**d.** I am so sorry. Let me connect you to him right now.
5. Did you suffer from insomnia?	**e.** I will head home to spend time with my parents.

SECTION – C

IV. Write a paragraph on any ONE of the following proverbs **1X5=5M**

a) Fortune favours the brave
b) Necessity is the mother of invention
c) Actions speak louder than words

V. Write a note on the differences between a paraphrase and a summary? **1x5=5M**

(OR)

What are the stages involved in summary writing?

SECTION – D

VI. Write a letter on any ONE of the following contexts. **1X5=5M**

a. Write a letter to your parents about your experience of settling into your new hostel room. Don't forget to mention your room-mate, and what you like or don't like about the place.
b. Write a letter to your uncle/ aunt, thanking him / her for the birthday gift you have received. Don't forget to say why you like the gift, and include other relevant information such as how you celebrated your birthday.
c. Write a letter to make a business inquiry about the children stories / textbooks available in that company.

VII. Write an e-mail on any ONE of the following contexts. 1X5=5M

a. Write an e-mail to Blaze and Sons, 11, Central Road, Chennai 600002, complaining about the receipt of the damaged copies of the book you ordered for.
b. M/s Bandarkar Agencies of Jalandar have not cleared their due amount of Rs. 45000. Write a reminder to bandarkars@gmail.com, asking for quick settlement.
c. Write an e-mail as the Manager, Customer Call, RSBI, responding to a customer's complaint that the latest half-yearly statements of his account have not been sent to him.

SECTION – E

VIII. Write a resume / CV responding to the following advertisement. 1X5=5M

Wanted a chef with at least five years' experience in 3-star hotels, for immediate appointment. Must be able to take full charge of kitchen supervision. Apply Hotel Astor, Kozhikode 673 001.

IX. Write a dialogue with FIVE exchanges on any ONE of the following contexts.1X5=5M

a. Making a complaint to the waiter about the food
b. Making an announcement about a field trip by the class representative
c. Obtaining an application form from the passport office

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AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS &SCIENCE
(AUTONOMOUS) VUYYURU- 521165

Re-Accredited by NAAC with 'A' Grade

2020-2021

PG Department of Chemistry

Minutes of the meeting of Board of Studies

24-11-2020

MINUTES OF BOARD OF STUDIES

Minutes of meeting of Board of studies in PG Department of Chemistry held on 24-11-2020 at10.30 am in the PG Department of Chemistry through online(Zoom meeting)

Members Present

S.No	NAME		Signature
1	**Dr. V.Sreeram** Head, Dept. ofChemistry(P.G) AG & SG S College,Vuyyuru.	Chairman	
2	**Prof.C.Suresh Reddy** Department ofChemistry S.V. University,Tirupati.	University Nominee	
3	**Prof. Koya Prabakar Rao** Department of Chemistry Vignan University, Guntur.	Subject Expert	
4	**Dr.M.Sivanath**Associate prof. Dept. of Chemistry A.N.R.College, Gudivada.	Subject Expert	
5	**Dr.G.Raja** Manager(Q.A) Biophore India pharamaceuticals. Hyderbad.	Representative from Industry	
6	**Abdul Raheem**	One Post Graduate Meritorious Aluminous nominated by the Principal	
7	**N.V.Srinivasa Rao** Department of Mathematics AG & SG S College, Vuyyuru.	Representative Science Faculty Other Dept.	
8	**V.N.V.Kishore** Dept. of Chemistry(P.G) AG & SG S College, Vuyyuru	Member	
9	**Dilshad Begum** Dept. of Chemistry(P.G) AG & SG S College, Vuyyuru	Member	
10	**M.Rekha** Dept. of Chemistry(P.G) AG & SG S College, Vuyyuru	Member	

AGENDA:

1. To Review and modified syllabus and model question papers, discuss & approve modalities of lab courses.
2. To suggest methodologies for innovative methods of teaching
3. Any other matter with the permission of the Chair
4. Molecular Spectroscopy, Rotational Vibrational Spectroscopy, Symmetry and Group theory in chemistry in paper I semester I
5. To recommend the changed syllabus potentiometry V in semester I

Resolutions

Resolution –I

1. Resolved to recommend the framed Syllabus & Model Question Papers for theory courses of SEM III and approve the modalities of Lab Courses as prescribed by BOS members.
2. Resolved to conduct assignments etc., for Internal Assessment Tests.
3. It is resolved to change the syllabus in III, I units namely Introduction to Molecular Spectroscopy, Rotational Vibrational Spectroscopy, Symmetry and Group theory in chemistry in paper I semester I
4. It is resolved to add potentiometry in paper IV of semester I

4 Resolution –II

Resolved to adopt online teaching methods like as ZOOM, Microsoft teams, Google meet etc for ICT (Information and communication technologies) teaching

Resolution –III

5. Nil

M.Sc. CHEMISTRY - I - SEMESTER

CH1T1: GENERAL CHEMISTRY

Subject Code	CH1T1	I A Marks	30
No. of Lecture Hours / Week	4	End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Seminar	---	Exam Hours	03

Objectives : 1. To generalize the analytical and quantitative skills gained in this course and to Apply them in more advanced course.
2. To specify the principles and applications of stoichiometry, titrimetry etc.
3. To learn problem solving and learning skills to interpret the data to employ Valid and efficient methods of analysis and to assess whether or not the Results and calculations are reasonable.

Course: General Chemistry (code CH1T1)			
S.No	COURSE OUTCOMES	PO`S	PSO's
	The student will be able to		
1	Understand the significance of statistical rules and principles in quantitative analysis.	1,2,5	2,3
2	Assimilate the knowledge of various kinds of reactions, titrations and their applications.	1,2,6	3
3	Get equipped with the basic knowledge of Methods of purification, Drying techniques and Solvent extraction.	1,2,7	1
4	Get equipped with the knowledge of Chromatography techniques like as Adsorption, Column, Paper and Thin Layer chromatography	1,2,7	3
5	Test the conceptual knowledge gained in Gas Chromatography and High-Performance Liquid Chromatography	1,2,7	3

UNIT I

Treatment of analytical data : Classification of errors - Determinate and indeterminate errors - Minimisation of errors - Accuracy and precision - Distribution of random errors - Gaussian distribution - Measures of central tendency - Measures of precision - Standard deviation - student's t test - Confidence interval of mean - Testing for significance - Comparison of two means – F - test - Criteria of rejection of an observation - propagation of errors - Significant figures and computation rules.

UNIT-II

Titrimetric Analysis: Classification of reactions in titrimetric analysis- Primary and secondary standards-Neutralisation titrations-Theory of neutralisation indicators-Mixed indicators-Neutralisation curves-Displacement titrations-Precipitation titrations-Indicators for precipitation titrations-Volhard method-Mohr method- Theory of adsorption indicators-Oxidation reduction Titrations-Change of electrode potentials during titration of Fe (II) with Ce (IV)- Detection of end point in redox titrations.

UNIT -III

Methods of purification:

Distillation: Basic principles. Distillation types, continuous distillation, batch distillation, fractional distillation, vacuum distillation and steam distillation.

Drying Techniques: Drying of Hexane, Benzene, Toluene, Xylene, Tetrahydrofuran, DMF, DMSO, Methanol, Ethanol, Diethylether and Dioxane. **Solvent extraction**: Basic principles. Different types of extraction. Selection of solvents. Avoiding emulsion formation. Basic concepts on Soxhlet extraction.

UNIT – IV

Adsorption and Partition Chromatography: Introduction to chromatography, Different types of Chromatography: **Adsorption chromatograph**: adsorbents, solvents, solutes, apparatus; **Column Chromatography:** stationary phase, Mobile phase, packing of column, advantages and disadvantages. **Paper chromatography:** Basic Principles. Ascending and descending types. Selection of mobile phase, Development of chromatograms, Visualization methods. Application of paper chromatography in the identification of sugars and amino acids. One- and two-dimensional paper chromatography; **Thin Layer chromatography:** Basic Principles. Common stationary phases, Methods of preparing TLC plates, Development of TLC plates, Visualization methods, Rf value. Application of TLC in monitoring organic reactions. identification and quantitative analysis.

UNIT V

Gas Chromatography and High-Performance Liquid Chromatography: **Gas chromatography:** Basic Principles. Different types of GC techniques. Selection of columns and carrier gases. Instrumentation. detectors; RT values. Applications in the separation, identification and quantitative analysis of organic compounds; **High Performance liquid chromatography (HPLC):** Basic Principles. Normal and reversed Phases. Selection of column and mobile phase. Instrumentation. detectors; RT values. Applications in the separation, identification and quantitative estimation of organic compounds. Concepts on HPLC method development.

REFERENCES:

1. Vogel's text book of quantitative analysis. (3rd edition)Addition Wesley Longmann Inc.
2. Quantitative analysis R.A Day and A.L.Underwood. Prentice Hall Pvt.Ltd.
3. Principles of computer programming (Fortran 77 IBM PC)V.Rajaraman, Prentice Hall.
4. An introduction to Digital computers.V.Rajaraman and T.Radhakrishnan
5. Fundamentals of Analytical Chemistry – Skoog and West
6. Instrumental Methods of analysis – B K Sharma
7.Basics of computers for Chemists, P.C. Jurs.

CH1T2: INORGANIC CHEMISTRY – I

Subject Code	CH1T2	I A Marks	30
No. of Lecture Hours / Week	4	End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Seminar	----	Exam Hours	03

Objectives:

1. To impart knowledge on basic & advanced aspects of Inorganic Chemistry.
2. To specify the need of modern theories of atomic structure and chemical bonding and their applications to molecular and metallic structures and coordination chemistry.
3. To equip the students with the fundamental principles and advanced aspects of Quantum chemistry.

Course: Inorganic chemistry (code CH1T2)			
S.No	COURSE OUTCOMES	PO`S	PSO's
	The post graduate will be able to		
1	Understand the postulates, basic theory and advanced theory of Quantum chemistry.	1,2	1
2	Take up the knowledge of preparation, structure, bonding aspects and chemical properties of metal pi complexes, compounds of non – transitional elements and also spectral properties, magnetic properties and applications of Lanthanides and actinide complexes.	1,2,4	3
3	Assimilate the knowledge of non-valence cohesive forces, VSEPR theory, MO theory, MO diagrams and implications of MO theory.	1,2,7	3
4	Comprehend the bonding, structural aspects, properties and applications of complexes basing on CFT & MO theory and evidences in support of M-L bond.	1,2,3	1,3
5	Identify the significance of the thermodynamic stability of complexes, factors effecting, theories to explain stability and methods of determining the stability constant of complexes.	1,2,5	3

UNIT-I

Introduction to Exact Quantum Mechanical Results: Schrodinger equation importance of wave function, Operators, derivation of wave equation using operator concept. Discussion of solutions of Schrodinger's equation to some model systems viz. particle in one dimensional box (applications), three dimensional box, Rigid rotator system and the Hydrogen atom.

UNIT-II

Chemistry of non- transition elements - Inter halogen compounds, Halogen oxides and oxyfluorides. Noble gas compounds with special reference to clathrates. Spectral and Magnetic properties of Lanthanides and Actinides. Analytical applications of Lanthanides and Actinides.

Synthesis, properties and structure of B-N, S-N, P-N cyclic compounds and intercalation compounds.

UNIT-III

Structure and Bonding - pπ - dπ bonding - Evidences (in non-transition metal compounds). Non-valence cohesive forces, Hydrogen bonding. VSEPR theory, Walsh diagrams for linear (BeH_2) and bent (H_2O) molecules. Molecular Orbital theory, Molecular orbitals in triatomic (BeH_2) molecules and ions (NO_2^-) and energy level diagrams.

UNIT-IV

Metal –ligand bonding - Crystal Field Theory of bonding in transition metal complexes – Splitting of d-orbitals in octahedral, tetrahedral, square plannar, Trigonalbipyramidal and Square pyramidal fields.Tetragonal distortions - Jahn Teller effect . Experimental evidences for covalence in complexes.

Molecular Orbital Theory of bonding for Octahedral, tetrahedral and square planar complexes. π-bonding and MOT -

UNIT-V

Metal – ligand Equilibria in solutions - Step wise and over all formation constants. Trends in stepwise constants (statistical effect and statistical ratio). Determination of formation constants by Spectrophotometric method (Job's method) and pH metric method (Bjerrum's). Stability correlations - Irwing – William's series.Hard and soft acids and bases – Hard and soft acids and bases (HSAB).

Reference Books

1. Inorganic Chemistry Huheey, Harper and Row.
2. Physical methods in inorganic chemistry, R.S. Drago. Affliated East-West Pvt. Ltd.
3. Concise inorganic chemistry, J. D. Lee, ELBS.
4. Modern Inorganic Chemistry, W. L. Jolly, McGrawHill.
5. Inorganic Chemistry, K. F. Purcell and J. C. Kotz Holt Saunders international.
6. Concepts and methods of inorganic Chemistry, B. E. Douglas and D.H.M.C. Daniel, oxford Press.
7. Introductory quantum mechanics, A. K. Chandra
8. Quantum Chemistry, R. K. Prasad.
9. Inorganic Chemistry, Atkins, ELBS
10. Advanced Inorganic Chemistry, Cotton and Wilkinson, Wiley Eastern
11. Quantum Chemistry,R. K. Prasad.
12. Text book of Coordination Chemistry, K.SomaSekharrao and K.N.K. Vani, Kalyani Publishers.
13. Theoretical Inorganic Chemistry by G.S.Manku, Tata McGrawHill, 2000, reprint.
14. Concise co-ordination chemistry, R.Gopal, Ramalingam, Vikas Publishing, House, 2014.
15. Inorganic Chemistry – Huheey, Keuter, L.Keiter, 4th edition, Pearson education, Asia.

CH1T3: ORGANIC CHEMISTRY – I

Subject Code	CH1T3	I A Marks	30
No. of Lecture Hours / Week	4	End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Seminar	----	Exam Hours	03

Objectives: 1. To provide proper insight on the topics of aromaticity and antiaromaticity in benzenoid & non-benzenoid aromatic compounds.

2. To emphasize the significance of reactive intermediates in organic synthesis.
3. To provide ample knowledge on the topic of stereochemistry and conformational analysis in order to make a student to understand organic reaction mechanisms.

Course: Organic chemistry (code CH1T3)			
S.No	COURSE OUTCOMES	PO`S	PSO's
	The post graduate will be able to		
1	Interpret the concept of aromaticity and the main properties of benzenoid and non-benzenoid aromatic compounds and distinguish between aromatic, non-aromatic and anti aromatic compounds by their structures and chemical consequence of aromaticity.	1,2,7	2,3
2	Understand the structure, stability, properties and generation of various reactive intermediates and reactive species and their role in organic reaction mechanisms.	1,2,5	1
3	Have a clear conceptual understanding of the nature of carbon-carbon multiple bond, various types of additions, with various reagents, mechanism, orientation and stereochemistry and also aknowledge some important synthetic reactions of CO and CN and crams rule.	2,6,7	2,3
4	Understand the definition types of elimination reactions and differentiate between the various mechanisms, orientation rules and perceives factors favouring elimination over substitution.	1,2,4	1
5	Have knowledge and understanding of various types of aliphatic and aromatic nucleophilic substitution reactions, their mechanisms, stereochemistry and various factors affecting nucleophilic substitution reactions	1,2,4	2

UNIT-I

Nature of Bonding in Organic Molecules: Localised and Delocalized, Delocalised chemical bonding conjugation, cross conjugation, hyper conjugation, Tautomerism.

Aromaticity: Concept of Aromaticity, Aromaticity of five membered, six membered rings .- Non benzonoid aromatic compounds:-cyclopropenylcation,

Cyclobutadienyldication,cyclopentadienylanion-
tropylliumcationcyclooctatetraenyldianion.Homoaromaticity, Anti aromaticity.

UNIT–II

Reactive intermediates:

Generation, Structure, Stability, Detection and Reactivity of Carbocations, Carbanions, Free radicals, Carbenes, Nitrenes and Arynes.

Reactive Species: Generation and reactivity of Electrophiles, Nucleophiles, Dienophiles, Ylids.

UNIT–III

Addition Reactions: Additions: Addition to carbon – carbon multiple bonds, HX, X2, HOX, stereo chemistry of addition, formation and reaction of epoxides, syn and anti hydroxylation, hydrogenation(catalytic and Non catalytic), synthetic reactions of CO and CN and Cram's rule.

UNIT–IV

Eliminations Reactions:

Types of elimination (E1,E1CB,E2) reactions, mechanisms, stereochemistry and orientation, Hofmann and Saytzeff's rules, Syn elimination versus anti elimination. Competitions between elimination and substitution. Dehydration, dehydrogenation, decarboxylative elimination, pyrolytic elimination.

UNIT–V

Substitution Reactions:

Aliphatic Nucleophilic substitutions:

The SN2, SN1, mixed SN1 and SN2 and SNireactions : Mechanism, effect of structure, nucleophile, leaving group on substitutions. The neighbouring group mechanism, neighbouring group participation by σ and π bonds, anchimeric assistance.

Aromatic Nucleophilic substitution:

The SNAr, SN1 mechanisms and benzyne mechanism. Reactivity- effect of substrate structure, leaving group and attacking nucleophile. The Von-Richter, Sommelet – Hauser and Smiles rearrangements.

References:

1. Advanced organic chemistry – reaction, mechanism and structure, Jerry March, John Wiley.
2. Advanced organic chemistry, F.A.Carey and R.J.Sundberg,Plenum.
3. A guide book to Mechanism in organic chemistry, Peter Sykes, Longman.
4. Organic chemistry ,I.L.Finar, Vol. I & II, Fifth ed. ELBS,1975.
5. Organic chemistry, Hendrickson, Cram and Hammond (McGraw – Hill).
6. Stereo Chemistry of carbon compounds – E.L. Eliel.
7. Modern organic Reactions, H.O.House, Benjamin.

8. An introduction to chemistry of Heterocyclic compounds, R.M.Acheson.
9. Structure and mechanism in organic chemistry, C.K.Ingold, Cornell University Press.

10. Principles of organic synthesis, R.O.C.Norman and J.M.Coxon, Blakie Academic & Professional
11.Reaction Mechanism in Oganic Chemistry, S.M.Mukherji and S.P.Singh, Macmillan.
12. Basic Principles of Organic Chemistry by J. B. Roberts and M. Caserio.
13. Stereo Chemistry of Organic compounds, P. S. Kalsi, New Age International.

CH1T4: PHYSICAL CHEMISTRY – I

Subject Code	CH1T4	I A Marks	30
No. of Lecture Hours / Week	4	End Exam Marks	70
Total Number of Lecture Hours	60	Total Marks	100
Seminar	----	Exam Hours	03

Objectives: 1. The main objective of the course is to impart the theoretical knowledge and applications of the important terms and laws of Physical Chemistry.

2. The course provides a basic understanding of the core areas of physical chemistry based around the theme of systems, states and processes topics covered on thermodynamic, kinetics and electro Chemistry.
4. The objective of the course is to understand and apply the laws of the thermodynamics and kinetics.

Course: Physical chemistry (code CH1T4)			
S.No	COURSE OUTCOMES	PO`S	PSO's
	The student will be able to		
1	Understand the core areas of physical chemistry based around the theme of systems, states and process covered on thermodynamics.	1,2,7	1
2	Understand the important aspects of surface phenomenan and the physical chemistry involved in it.	1,2,5	2
3	Understand the basic concepts of electrochemical cells, concentration cells in producing electricity from chemicals.	1,2,7	2
4	Understand the theories of reaction rates, mechanisms of Collision theory, primary and secondary salt effects.	1,3,7	1,3
5	Understand the method of bond length, bond strength determination, identification of functional groups present in the molecule from the microwave and IR spectra of molecules.	1,2,6	3

UNIT-I

Thermodynamics - I

Classical thermodynamics - Brief review of first and second laws of thermodynamics - Entropy change in reversible and irreversible processes - Entropy of mixing of ideal gases - Entropy and disorder – Free energy functions - Gibbs-Helmholtz equation - Maxwell partial relations - Conditions of equilibrium and spontaneity - Thermodynamic derivation of Raoult's law.

UNIT – II

Surface phenomena and phase equilibria- Surface tension - capillary action - pressure difference - across curved surface (young - Laplace equation) - Vapour pressure of small droplets (Kelvin equation) - Gibbs-Adsorption equation - BET equation - Estimation of surface area - catalytic activity of surfaces – ESCA , X- ray fluorescence and Auger electron spectroscopy.

UNIT - III

Electrochemistry – I - Electrochemical cells - Measurement of EMF - Nernst equation – Equilibrium constant from EMF Data - pH and EMF data - concentration cells with and without transference – Liquid junction potential and its determination - Activity and activity coefficients - Determination by EMF Method - Determination of solubility product from EMF measurements. Debye Huckel limiting law and its verification.

UNIT - IV

Chemical kinetics- Methods of deriving rate laws - complex reactions - Rate expressions for opposing, parallel and consecutive reactions involving unimolecular steps. Theories of reaction rates -collision theory - Steric factor - Activated complex theory - Thermodynamic aspects – Unimolecular reactions - Lindemann's theory - Lindemann-Hinshelwood theory. Reactions in solutions - Influence of solvent - Primary and secondary salt effects.

UNIT – V

Microwave Spectroscopy and Rotational Vibrational Spectroscopy: Motion of molecules-Degrees of freedom –Energy associates with the degrees of freedom Type of spectra. **Microwave spectroscopy**: Classification molecules, rigid rotator model, effect of isotopic substitution on the transition frequencies, Intensities non-rigid rotator-Microwave spectra of polyatomic molecules. **RotationalVibrational Spectroscopy**: Harmonic oscillator, vibrational energies of diatomic molecules, zero-point energy, force constant and bond strengths, anharmonicity Morse potential energy diagram. Vibration – rotation spectroscopy. PQR branches, Born–Openheimer approximation, selection rules, normal modes of vibration group frequencies, overtones, hot bands, applications.

REFERENCE BOOKS:

1. Physical chemistry, G.K.Vemulapalli (Prentice Hall of India).
2. Physical chemistry, P.W.Atkins. ELBS
3. Chemical kinetics - K.J.Laidler, McGraw Hill Pub.
4. Text book of Physical Chemistry, Samuel Glasstone, Macmillan pub.
5. Polymer Sceince, Gowriker,Viswanadham, Sreedhar
7. Elements of Nuclear Science, H.J.Arniker, Wiley Eastern Limited.
8. Quantitative Analysis, A.I. Vogel, Addison Wesley Longmann Inc.
9. Physical Chemistry-G.W.Castellan, Narosa Publishing House, Prentice Hall
10. Physical Chemistry, W.J.Moore, Prentice Hall
11. Polymer Chemistry – Billmayer

CH1L1: INORGANIC CHEMISTRY PRACTICAL

Subject Code	CH1L1	I A Marks	30
No. of Practical Hours / Week	6	End Exam Marks	70
Total Number of Practical Hours	80	Total Marks	100
Seminar	----	Exam Hours	06

Course: Inorganic Chemistry Lab (code CH1L1)			
S.No	COURSE OUTCOMES	PO`S	PSO's
	The post graduate will be able to		
1	Understand the importance of Inorganic qualitative analysis and its use in research and industry.	1,2,5	2
2	Comprehend the procedures / tests for the identification of cations and anions.	1,2,6	3
3	Interpret the need for separation of interfering radical in Inorganic qualitative analysis.	1,2,3	2
4	Know that complexes can be synthesized by simple procedures.	1,2,6	2

List of experiments:

1. Preparation of Potassium trisoxalatoferrate(III).
2. Preparation of Tris thiourea copper (1)sulphate.
3. Preparation of Cis and trans potassium diaquodioxalatochromium(III).
4. Preparation of Hexa ammine cobalt (III)chloride.
5. Determination of Zn^{2+} with potassium Ferrocyanide.
6. Determination of Mg^{2+} usingEDTA.
7. Determination of Ni^{2+} usingEDTA.
8. Determination of hardness of water usingEDTA.
9. Gravimetric determination of nickel using dimethylglyoxime.
10. Gravimetric determination of Copperusingammonium thiocyanate.
11. Gravimetric determination of Zn using diammonium hydrogenphosphate.
12. Semi micro qualitative analysis of six radicalmixtures

(One interfering anion and one less familiar cation for each mixture) (minimum three mixtures).

Anions: S^{2-}, SO^{2-}, Cl^{-}, Br^{-}, I^{-}, $NO3^{-}$, $SO4^{2-}$, $CH3COO^{-}$, $C2O4^{-2}$, $C4H4O6^{-2}$, $PO4^{3-}$, $CrO4^{2-}$,

Cations: Ammonium ($NH4^{+}$)

1st group: Hg^{+}, Ag^{+}, Pb^{+2}, Tl^{+}, W^{+6}.

2nd group: Hg^{+2}, Pb^{+2}, Bi^{+3}, Cu^{+2}, Cd^{+2}, Sn^{+2}, Sn^{+4}, Mo^{+6}.

3rd group: Fe^{+2}, Fe^{+3}, Al^{+3}, Cr^{+3}, Ce^{+4}, Th^{+4}, Ti^{+4}, Zr^{+4}, VO^{+2}, $UO2^{+2}$, Be^{+2}.

4th group:Zn^{+2},Mn^{+2}, Co^{+2}, Ni^{+2}.

5^{th} group: Ca^{+2}, Ba^{+2}, Sr^{+2}.

6^{th} group: Mg^{+2}, K^{+}, Li^{+}.

Text books/ Reference books:

1. Vogels Text Book of Quantitative analysis, revised. J. Bassett, R.C. Denny, G.H. Jeffery and J. Mendhan,ELBS.
2. Synthesis and Characterization of Inorganic Compounds, W.L. Jolly. PrenticeHall.
3. Practical Inorganic Chemistry by G. Pass and H. Sutcliffe Chapman andHall.
4. Practical Inorganic Chemistry by. K. Somasekhara Rao and K.N.K. Vani. Kalyanipublishers.

CH1L2: ORGANIC CHEMISTRY PRACTICAL-I

Subject Code	CH1L2	I A Marks	30
No. of Practical Hours / Week	4	End Exam Marks	70
Total Number of Practical Hours	80	Total Marks	100
Seminar	---	Exam Hours	06

Course: Organic chemistry Lab (code CH1L2)			
S.No	COURSE OUTCOMES	PO`S	PSO's
	The post graduate will be able to		
1	Understand the importance of organic compound synthesis and its use in research and industry.	1,2,6	2
2	Understand the procedures for the different steps for the organic compound synthesis.	1,5,6	2
3	Understand the mechanisms for the synthesis of organic compounds in different steps.	1,2,7	3
4	Understand the recrystallisation of organic compound in various steps for the organic compound synthesis.	1,2,4	2

List of experiments:

1. Separation of Binary mixtures of Carboxylic acid + Neutral organic compounds (Solvent extractionmethod).
2. Separation of Binary mixtures of Basic nature + Neutral organic compounds (Solvent extraction method).
3. Separation of Binary mixtures of Phenolic compounds + Neutral organic compounds (Solvent extractionmethod).
4. Preparation of Phthalimide from Phthalic anhydride – HighTemperature.
5. Preparation of p-nitro acetanilide – Lowtemperature.
6. Preparation of Iodoform – Roomtemperature.
7. Column chromatography - separate the given mixture of o-and p-nitroaniline.
8. Paper chromatography - separate the given mixture of sugars or aminoacids.
9. Thin layer chromatography - separate the given mixture of phenols or 2,4-DNP derivatives of carbonylscompounds.
10. Preparation of Sodium wire - to make Sodium Wire for solventdrying.
11. Preparation of SodiumGranules.
12. Preparation of Sodiumt-butoxide.
13. Preparation of Grignard Reagent and its usage onereaction.
14. Preparation of Wittigreagent.
15. Preparation of ButylLithium.

Text books/ Reference books:

1. A.I. Vogel, "A Text Book of Practical Organic Chemistry",Longman
2. A.I. Vogel, "Elementary Practical Organic Chemistry",Longman
3. F.G. Mann and B.C. Saunders, "Practical Organic Chemistry",Longman
4. Reaction and Synthesis in Organic Laboratory, B.S. Furniss, A.J. Hannaford, Tatchell, University Science Books millsvalley.
5. Purification of Laboratory chemicals, manual, W.L.F. ArmaregoEDDPerrin
6. Reaction and Synthesis in Organic Chemistry Laboratory, Lutz-Friedjan- Tietze, TheophilEicher, University ScienceBook.

Model Question paper

A.G &S.G. Siddhartha College, Vuyyuru – 521165

PG Department of Chemistry

Sem I

Dt : XX/XX/2021 Time : 9.00 to 12.00 am Marks : 70M

Paper – II, General Chemistry

SECTIO|N-A

Answer all the questions. Each question carries 2 marks (10X2=20M)

All Units carries equal Marks.

1. Write equation for student's t-test and explain terms in it.
2. Explain Measure of control tendency.
3. Explain terms primary and secondary standards in titrimetric analysis.
4. Explain titration of strong acid versus strong base.
5. Explain drying techniques of Hexane, Benzene & toluene.
6. Draw apparatus for Steam distillation and Explain principle.
7. Write applications of Thin-layer chromatography.
8. Explain packing of column in adsorption chromatography.
9. Explain R_T values in HPLC and principle of HPLC.
10. Write Instrumentation diagram of Gas liquid chromatography.

SECTIO|N-B

Answer any 5 Questions from the following. Each Question carries 10 Marks (5X10=50M)

(Minimum ONE Question from Each Unit).

11. Write Brief account of Classification of Errors
12. Explain precipitation reactions and Indicators used
13. Explain Solvent extraction in brief.
14. Write basic principle of ascending and descending types of paper chromatography.
15. Explain apparatus, Mobile phase and stationary phases in column chromatography.
16. Write about basic principle, Instrumentation and working of Gas chromatography.
17. Write principles of Normal and reversed phases in HPLC and Draw Instrumentation diagram.
18. Explain Gaussian distribution and Accuracy.

Note: All units are must be covered for Questions.

Model Question paper

A.G &S.G. Siddhartha College, Vuyyuru – 521165

PG Department of Chemistry

Sem I

Dt : XX/XX/2021 Time : 9.00 to 12.00 am Marks : 70M

Paper – II, Inorganic Chemistry

SECTIO|N-A

Answer all questions to be answered. Each question carries 2 marks (10X2=20M)

All Units carries equal Marks.

1. Write Schrodinger's wave Equation and explain terms in it.
2. Explain Eigen values and Eigen Functions.
3. Write Classification of Interhalogen compounds
4. Write Magnetic properties of Lanthanides.
5. Write about Non- valency cohesive forces and their types.
6. Explain Inter molecular hydrogen bonding with example.
7. Draw crystal field splitting in square planar complexes.
8. What is John-Teller effect?
9. Write about Hard Acids and Soft Bases with example.
10. Explain Statistical effect.

SECTIO|N-B

Answer 5 Questions to be answered. Each Question carries 10 Marks (5X10=50M)
(Minimum ONE Question from Each Unit).

11. Write Schrodinger's wave equation for particle in one dimensional box.
12. Discuss about halogen oxides and oxy fluorides.
13. I) what are the important postulates of VSPER theory.

    II) Derive shapes of XeFu, XeF_2 using VSPER theory.
14. Explain splitting of d-orbital's in trigonal bipyramidal and square pyramidal crystal fields.
15. Explain step-wise and overall formation constants.
16. Explain determination of formation constant by spectrophotometric method (Job's method)
17. Explain splitting of d-orbital's in octahedral and tetrahedral complexes.
18. Explain rigid- rotator system in quantum mechanics.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) VUYYURU-521165

Aided by the Government of A.P, Re-Accredited by NAAC with 'A' Grade

2020-2021
II SEMESTER

PG Department of Chemistry

Minutes of the meeting of Board of Studies

10-06-2021

MINUTES OF BOARD OF STUDIES

Minutes of meeting of Board of studies in PG Department of Chemistry held on 10-06-2021 at 3.00 pm in the PG Department of Chemistry through online (Zoom meeting)

S.No	NAME		Signature
1	**Dr. V.Sreeram** Head, Dept. ofChemistry(P.G) AG & SG S College,Vuyyuru.	Chairman	
2	**Prof.C.Suresh Reddy** Department ofChemistry S.V. University,Tirupati.	University Nominee	
3	**Prof. Koya Prabakar Rao** Department of Chemistry Vignan University, Guntur.	Subject Expert	
4	**Dr.M.Sivanath** Associate prof. Dept. of Chemistry A.N.R.College, Gudivada.	Subject Expert	
5	**Dr.G.Raja** Manager(Q.A) Biophore India pharamaceuticals. Hyderbad.	Representative from Industry	
6	**Abdul Raheem**	One Post Graduate Meritorious Aluminous nominated by the Principal	
7	**N.V.Srinivasa Rao** Department of Mathematics AG & SG S College, Vuyyuru.	Representative Science Faculty Other Dept.	
8	**V.N.V.Kishore** Dept. of Chemistry(P.G) AG & SG S College, Vuyyuru	Member	
9	**Dilshad Begum** Dept. of Chemistry(P.G) AG & SG S College, Vuyyuru	Member	
10	**M.Rekha** Dept. of Chemistry(P.G) AG & SG S College, Vuyyuru	Member	

AGENDA:

1. To prepare syllabus and model question papers, discuss & approve modalities of lab courses.
2. To Suggest methodologies for innovative methods of teaching.
3. Any other matter with the permission of the Chair.

Resolution –I

1. Resolved to recommend the framed Syllabus & Model Question Papers for theory courses and approve the modalities of Lab Courses as prescribed by BOS members.
2. Resolved to conduct assignments etc., for Internal Assessment Tests.
3. To recommend the changed syllabus Radioactivity and isotopes in Unit V of semester I

Resolution –II

1. Resolved to adopt online teaching methods like as ZOOM, Microsoft teams, Google meet etc for ICT (Information and communication technologies) teaching.

Resolution –

1.Resolved to change the II SEM Syllabus

A.G. & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(Autonomous)
DEPARTMENT OF CHEMISTRY
M.Sc – CHEMISTRY (ORGANIC CHEMISTRY)
II SEMESTER

Paper Code & Title: CH201: ORGANIC SPECTROSCOPY

No. of hours per week: 04 Total credits: 04
Total marks: 100 (Internal: 30 M & External: 70M)

Course: Organic Spectroscopy (code 20CH2T1)		
S.No	COURSE OUTCOMES	PO`S
	The graduate will be able to	
1	Memorize the basic principles and theory involved in molecular absorption spectroscopy.	2,7
2	Comprehend the advanced concepts of molecular absorption spectroscopy.	1,2,5
3	Apply the knowledge of spectroscopy in establishing the structure of organic molecules.	1,5,7
4	Analyze the spectral data to ascertain the structure of unknown molecules.	1,4,2

UNIT- I

UV- Visible Spectroscopy:
Mechanics of measurement – Energy transitions – Simple chromophores – Auxochrome, Absorption shifts (Bathchromic shifts, Hypsocromic shift, Hyper chromic shift, Hypo chromic shift). UV absorption of Alkenes – polyenes, unsaturated cyclic systems .
UV absorption of Carbonyl compounds α,β-unsaturated carbonyl systems - UV absorption aromatic systems – solvent effects – geometrical isomerism – acid and base effects – typical examples – calculation of λmax values for simple molecules using Woodward -Fieser rules.

UNIT – II

IR Spectroscopy:
Mechanics of measurement – Fundamental modes of vibrations -Stretching and bending vibrations – Factors effecting vibrational frequency-hydrogen bonding.
Finger print region and its importance. Typical group frequencies for – CH,
-OH, -NH, -CC, -CO and aromatic systems - Application in structural determination Examples – simple problems.

UNIT – III

Nuclear Magnetic Resonance Spectroscopy (1HNMR – First Order PMR):
Introduction:Nuclear spin-Basic principle of -NMR - nuclear resonance –saturation-Larmor's frequency-Relaxation- Instrumentation(Cw and FT) shielding and de shielding of magnetic nuclei- chemical shift and its measurements, factors influencing chemical shift, spin–spin

interactions and factors influencing spin -spin coupling- Dynamic NMR- coupling constant J. and factors effecting J value.

UNIT – IV

Mass Spectrometry I

Introduction- ionization methods-EI, CI, ES, MALDI and FAB – advantages and disadvantages-molecular ion peak and its importance, meta stable peak, Nitrogen rule and extension of nitrogen rule. Determination of Molecular weight and determination of molecular formulae- Isotopic Peaks- Identification of single chlorine atom and double chlorine atom single bromine atom and double bromine atoms in organic compounds. Instrumentation.

UNIT – V

Mass Spectrometry II

Fundamental fragmentation process- Stevenson's rule- radical site initiated cleavage-charge site initiated cleavage- two bond cleavage- Retrodielalder cleavage- Mc-Lafferty rearrangement and other cleavages. Mass spectral fragmentation of alkanes, cycloalkanes, alkenes, alkynes, aromatic hydrocarbons, alcohols, phenols, thiols, ethers, carbonyl containing compounds (Aldehydes, ketones, esters and carboxylic acids), nitrogen compounds, alkyl chlorides and alkyl bromides, Examples of mass spectral fragmentation of organic compounds with respect to their structure determination.

Text books/ Reference books:

1. Introduction to Spectroscopy – D. L. Pavia, G.M. Lampman, G. S. Kriz, 3rd Ed. (Harcourt college publishers).

2. Spectrometric identification of organic compounds R. M. Silverstein, F. X. Webster, 6th Ed. John Wiley and Sons.

3. Spectroscopic methods in organic chemistry - D. H. Williams and I. FlemmingMc.Graw Hill.

4. Absorption spectroscopy of organic molecules – V. M. Parikh

5. Nuclear Magnetic Resonance – Basic Principles- Atta-Ur-Rehman, Springer-Verlag (1986).

6. One- and Two-dimensional NMR Spectroscopy – Atta-Ur-Rehman, Elsevier (1989).

7.Organic structure Analysis- Phillip Crews, Rodriguez, Jaspars, Oxford University Press (1998).

8. Organic structural Spectroscopy- Joseph B. Lambert, Shurvell, Lightner, Cooks, Prentice-Hall (1998).

9. Organic structures from spectra –Field L.D., Kalman J.R. and Sternhell S. 4th Ed. John Wiley and sons Ltd.

A.G.& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(Autonomous)
DEPARTMENT OF CHEMISTRY
M.Sc – CHEMISTRY (ORGANIC CHEMISTRY)
II SEMESTER

Paper Code & Title: CH102: INORGANIC CHEMISTRY-II

No. of hours per week: 04 Total credits: 04
Total marks: 100 (Internal: 30 M & External: 70M)

Course: Inorganic chemistry (code 20CH2T2)		
S.No	COURSE OUTCOMES	PO`S
	The graduate will be able to	
1	Memorize the fundamental concepts of Metallic & metallic clusters, Inorganic reaction mechanisms, organo metallic chemistry, electronic spectra& magnetic properties of complexes and bioinorganic chemistry.	2,7
2	Comprehend the basic and advanced concepts of metallic &non metallic clusters, Inorganic reaction mechanisms, organo metallic chemistry, electronic & magnetic properties of complexes and bioinorganic chemistry.	1,2,6
3	Applythe conceptual knowledge gained in the concepts of metallic &nonmetallic clusters, inorganic reaction mechanisms, organometallic chemistry, electronic &magnetic properties of complexes and bio inorganic chemistry in other fields of chemistry as well as in research.	1,2,7
4	Analyze the role of metallic &non metallic clusters/cages, inorganic reaction mechanisms, organo metallic chemistry, electronic &magnetic properties of complexes and bio inorganic chemistry in understanding the similarities and differences among the concepts of chemistry.	1,3,2
5	Assess that how far the concepts of metallic&non metallic clusters, Inorganic reaction mechanisms, organos metallic chemistry, electronic & magnetic properties of complexes and bioinorganic chemistry are useful in rendering theoretical explanations for the concepts in chemistry.	1,7,2

Unit-I: Non-metal cages and metal clusters:
Structure and bonding in phosphorous-oxygen, phosphorous-Sulphur cages; structure and bonding in higher boranes with (special reference to B12icosahedra). Carboranes, metalloboranes, metallocarboranes. Classification- LNCs and HNCs,Isoelectronic and Isolobal relationships, electron counting rules: Wade's and Lauher's rules. M-Mmultiple bonding; preparation, structure and bonding in dinuclear [Re2Cl8] 2- ion, trinuclear[Re3Cl9], tetra nuclear W4(OR)16, hexa nuclear [Mo6Cl8]4+ and [Nb6Cl12]2-.

Unit-II: Organometallic chemistry of transition metals:
Classification and electron counting rules, captivity, synthesis, structure and bonding of Olefinic complexes, Acetylene complexes,ferrocene, dibenzene chromium, cyclo heptatriene and tropylium complexes of transition metals.Reactions of organometallic compounds - oxidative addition reductive elimination, insertion and elimination. Applications of organometallic compounds, Catalytic hydrogenation,

Hydroformylation, alkene polymerization.

Unit-III: Reaction mechanism of transition metal complexes:
Kinetics of octahedral substitution, acid hydrolysis, base hydrolysis-conjugate base (CB) mechanism. Direct and indirect evidences in favour of CB mechanism. Anation reactions. Reactions without metal-ligand bond cleavage. Factors affecting the substitution reactions in octahedral complexes. Trans effect on substitution reactions insquare planar complexes. Mechanism of redox reactions, outer sphere mechanism, cross reactions and Marcus –Hush equation, inner sphere mechanism.

Unit-IV: Term symbols and Electronic spectra: Term symbols:
Term symbols and their derivation, Microstates, Hund's rules to predict ground terms and ground states. List of ground energy and higher energy terms from d1 to d9 configurations;
Electronic spectra of transition metal complexes:
Spectroscopic terms. Selection rules, Slator–Condon parameters, Racahparameters, Term separation energies for dn configurations,Orgel diagrams. Tanabe-Sugano diagrams for d1 to d9 configurations. Calculations of Dq, B and β parameters. Charge transfer spectra.

Unit-V: Bio-inorganic chemistry and Magnetic properties of complexes:
Storage and transportof dioxygen by Hemoglobin and Myoglobin,Vitamin B12 and its importance.
Magnetic properties of transition metal complexes:
Types of magnetism, factors affecting Paramagnetism, anomalous magnetic moments - Orbital and spin contribution, spin-orbit coupling and magnetic moments chiro optical properties, cotton effect and Faraday effect.

Text books/ Reference books:
1. Inorganic Chemistry by Huheey. Harper and Row.
2. Concise inorganic chemistry by J. D. Lee, ELBS.
3. Inorganic chemistry, K.F. Purcell and J.C. Kotz, Holt Saunders international
4. Organometallic chemistry by R.C. Mehrotra and A. Singh. New Age International.
5. Advanced Inorganic Chemistry by Cotton and Wilkinson, Wiley Eastern
6. Inorganic reaction mechanism by Basolo and Pearson, Wiley Eastern
7. Bioinorganic Chemistry by K. Hussan Reddy
8. Biological Aspects of inorganic chemistry by A. W.Addiso, W. R. Cullen, D.Dorphin and G. J. James. WelieyInterscience.
9. Photochemistry of coordination compounds by V. BalzaniandV.Carassiti. Academic Press.
10. Text book of Coordination chemistry by K. Soma Sekhara Rao and K.N.K. Vani, Kalyani Publishers.

NOTE: PercentageofChange - 0%

A.G.& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(Autonomous)
DEPARTMENT OF CHEMISTRY
M.Sc – CHEMISTRY (ORGANIC CHEMISTRY)
II SEMESTER

Paper Code & Title: CH203: ORGANIC CHEMISTRY -II

No. of hours per week: 04 **Total credits: 04**
Total marks: 100 **(Internal: 30 M & External: 70M)**

Course: Organic chemistry (code 20CH2T3)		
S. No	COURSE OUTCOMES	PO`S
	The student will be able to	
1	Understand the basic and advanced concepts of stereochemistry, conformational analysis, green chemistry, nanochemistry and named reactions.	2,7
2	Apply the concepts related to stereochemistry, conformational analysis, and green and nano chemistry in establishing the mechanism of the reaction.	1,2,3
3	Assess that how far the knowledge gained in stereochemistry, green chemistry and nanochemistry is useful in understanding the nature of product.	1,5,6
4	Evaluate the role of stereochemistry, green principles and nano chemistry in establishing the mechanism of a reaction as well as in other areas of chemistry.	1,4,7

Unit-I: Named reactions:
Aldol condensation, Benzoin condensation, Cannizzaro condensation, claisen condensation, Dieckmann condensation, Perkin condensation, Stobbe condensation,Reformatsky reaction,Mannich reaction, Reimer-Tiemann reaction, Vilsmeier-Haack reaction, Shapiro reaction, McMurray reaction, Michael addition reaction, Wittig reaction, Stork – Enamine reaction,Acyloin condensation, Robinson ringannulation and Simmon-Smith reaction.

Unit-II: Stereo Chemistry-I:
Concept of chirality, Recognitionof Symmetry elements. Definition and classification of Stereoisomers, Enantiomer, Diastereomer, Homomer, Epimer, Anomer, Configuration and Conformation, Configurational nomenclature: D,L and R, S nomenclature. Molecular representation of organic molecules: Fischer, Newman and Sawhorse projections and their inter-conversions.Geometrical Isomerism. Cis-trans, E, Z- and Syn and anti nomenclature, Methods of determining configuration of Geometrical isomers using physical, spectral and chemical methods.

Unit-III: Stereo Chemistry-II:
Definition of Conformation, Conformational analysis of acyclic molecules – alkanes and substituted alkanes. Conformational analysis of monocyclic molecules – cyclohexane – chair,

boat and twist boat - mono and disubstituted cyclo hexanes and conformation around carbon hetero atom bonds having C–O & C–N. Confirmation and intra molecular hydrogen bonding.

Unit-IV: Green chemistry & Phase transfer catalysis:
Introduction to Green chemistry, Principles and concepts of Green chemistry, Green Catalysis, Biocatalysis, renewable resources, Green Reagents, examples of green reactions-synthesis of Ibuprofen, Clean Fischer-Indole synthesis comparison of the above with conventional methods. Introduction to Microwave organic synthesis: introduction, advantages and disadvantages. Applications: solvents (water and organic solvents), solvent free reactions (Solid state reactions).

Unit-V: Chemistry of Nanomaterials:
Introduction, carbon nanotubes: structure of single and multi-walled carbon nanotubes, synthesis-solid and gaseous carbon source-based production techniques, synthesis with controlled orientation. Growth mechanism of carbon nano tubes-catalyst free growth, catalyst activated growth, general properties and applications.

Text books:

1. Advanced organic chemistry –Reaction, mechanism and structure, Jerry March, John Wiley.
2. A guide book to Mechanism in organic chemistry, Peter Sykes, Longman.
3. Organic chemistry, I.L. Finar, Vol. I & II, Fifth ed. ELBS, 1975.
4. Stereo Chemistry of carbon compounds – E.L. Eliel.
5. Nano, The Essentials: T. Pradeep, The Mc. Graw Hill & Co.
6. Principles of organic synthesis, R.O.C. Norman and J.M. Coxon, Blakie Academic & Professional.
7. Reaction Mechanism in organic chemistry, S.M. Mukherji and S.P. Singh, Macmillan.
8. Green chemistry Theory and Practice by Paul T. Anastas and John C. Warner, Oxford University press.
9. Methods and reagents for Green chemistry, PietroTundo, AlvisePerosa, FulvioZecchini, John Willey& sons Inc.

NOTE: Percentage of Change - 0%

A.G.& S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(Autonomous)
DEPARTMENT OF CHEMISTRY
M.Sc – CHEMISTRY (ORGANIC CHEMISTRY)
II SEMESTER

Paper Code & Title: CH204: PHYSICAL CHEMISTRY-II
No. of hours per week: 04 Total credits: 04
Total marks: 100 (Internal: 30 M & External: 70M)

Course: Physical chemistry (code 20CH2T4)		
S.No	COURSE OUTCOMES	PO`S
	The student will be able to	
1	Remember the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.	1,2,7
2	Understand the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.	1,2,7
3	Apply the concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistryin research and other allied fields.	1,2,4
4	Analyze the role and significance of concepts of thermodynamics, polymer chemistry, electro chemistry, chemical kinetics, photo chemistry.	1,2,7
5	Evaluate the role of concepts of Symmetry and Group theory in chemistry and applications of group theory, construction of character tables.	1,2,7

Unit-I: Third law of Thermodynamics and Statistical thermodynamics:
Nernst Heat theorem -Third law of thermodynamics - Its limitations - Determination of absolute entropy -
Thermodynamic probability and most probable distribution, Entropy and probability - Boltzmann-Plank equation. Ensembles, Maxwell-Boltzmann distribution, Fermi-Dirac statistics, Bose Einstein statistics. Partition function - calculation of thermodynamic properties in terms of partition function- Chemical equilibrium and partition function - Translational, rotational and electronic partition function - Entropy of Monatomic gases (Sackur-Tetrode equation).

Unit-II: Polymer chemistry and Raman Spectroscopy:
Classification of polymers - Free radical, ionic and Zeigler -Natta Polymerization - kinetics of free radical polymerization -Techniques of polymerization -Glass transition temperature - Factors influencing the glass transition temperature. Number average and Weight average, Molecular weights –molecular weights determinations –Membrane Osmometry, Light scattering phenomenon. Classical and quantum theories of Raman effects, pure rotational, vibration and Vibration- rotational Raman spectra, selection rules,
Mutual exclusion principle.

Unit-III: Electro Chemistry-II:
Reference electrode - Standard hydrogen electrode. Calomel electrode -Indicator electrodes: Metal-metal ion electrodes - Inert electrodes -Membrane electrodes- theory of glass membrane potential, potentiometric titrations, advantages of potentiometrictitrations, Conductmetric titrations. Electrode potentials - Double layer at the interface - rate ofcharge transfer - Decomposition potential - Over potential - Tafel plots - Derivation of Butler-Volmer equation for one electron transfer - electro chemical potential.

Unit-IV: Chemical kinetics and Photo chemistry:
Branching Chain Reactions – Hydrogen-oxygenreaction - lower and upper explosion limits - Fast reactions - Study of kinetics by flow methods - Relaxation methods - Flash photolysis. Acid base catalysis –protolytic and phototropicmechanism. Enzyme catalysis - Michelis-Menten kinetics.

Photochemistry:
Quantum yield and its determination, Actinometrical, Reactions with low and high quantum yields, Photo sensitization, Exciplexes and Excimers, Photochemical equilibrium, Kinetics of collisional quenching - Stern-Volmer equation.

Unit-V:
Symmetry and Group theory in chemistry: Symmetry elements, symmetry operation, definition of group, sub group, relation between order of a finite group and its sub group. GMT tables Abelian and non-abelian groups. Point group. Schonfiles symbols, Find out Point group of a molecule (yes or no Method). Representation of groups by Matrices (representation for the Cn, Cnv, Cnh, Dn etc. groups to be worked out, explicitly). Character of a representation. The great Orthogonality theorem (without proof) and its importance. Character tables and their use. Construction of Character tables.

Text books/ Reference books:

1. Physical chemistry, G.K. Vemulapalli (Prentice Hall of India).
2. Physical chemistry, P.W. Atkins. ELBS.
3. Chemical kinetics - K.J. Laidler, McGraw Hill Pub.
4. Text book of Physical Chemistry, Samuel Glasstone, Macmillan pub.
5. Statistical Thermodynamics - M.C.Gupta.
6. Polymer Sceince, Gowriker, Viswanadham, Sreedhar.
7. Quantitative Analysis, A.I. Vogel, Addison Wesley Longmann Inc.
8. Physical Chemistry by G.W.Castellan, Narosa Publishing House, Prentice Hall.
9. Physical Chemistry by W.J. Moore, Prentice Hall.
10. Polymer Chemistry by Billmayer.
11. Fundamentals of Physical Chemistry by K K. Rohatgi-Mukherjee. Wiley Eastern Ltd publications.
12. Statistical Thermodynamics by M.Dole.
13. Fundamentals of photochemistry by Rohatgimukherjee, New Age international Publications.

14. Essentials of Nuclear chemistry by H.J. Armikar, New Age international Publications.

NOTE: Percentage of Change – 0%

A.G.&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE

DEPARTMENT OF CHEMISTRY

M.Sc – CHEMISTRY (ORGANIC CHEMISTRY)

II SEMESTER

Paper Code & Title: 20OECH: (OPEN ELECTIVE-I)

CHEMISTRY IN DAILY LIFE

No. of hours per week: 04 **Total credits: 04**

Total marks: 100 **(Internal: 30 M & External: 70M)**

Course: CHEMISTRY IN DAILY LIFE (code 20OECH)		
S.No	COURSE OUTCOMES	PO`S
	The graduate will be able to	
1	Memorize the basic concepts related to chemistry in daily life like – chemistry Laboratory safety symbols, environmental chemistry, bioinorganic chemistry, vitamins, antibiotics and hormones.	2,7
2	Understand the concepts like chemistry Laboratory safety symbols, environmental chemistry, bioinorganic chemistry, vitamins, antibiotics and hormones.	1,2,6
3	Apply the knowledge gained in the concepts like chemistry Laboratory safety symbols, environmental chemistry, bioinorganic chemistry, vitamins, antibiotics and hormones in future job roles.	1,4,7

Course Learning Objective(S): The main objective of this paper is to give a basic and updated knowledge for the students on Chemistry Laboratory safety symbols – Meaning, Environmental Chemistry, Bioinorganic Chemistry, Biological functions of Hormones and Medicinal chemistry.

Unit-I: Chemistry Laboratory safety symbols – Meaning:

Corrosive, carcinogenic, Harmful, toxic, dangerous to environment, Explosive, flammable, Narcotic, Oxidizing, Lachrymatory, Radioactive, irritant, gases under pressure, general laboratory safety precautions.

Unit-II: Environmental Chemistry:

Ambient air quality standards, Acid rain, Smog, Greenhouse effect, Bhopal gas tragedy, Vishakhapatnam polymer industry tragedy, Renewable and Nonrenewable energy resources, DO, COD, BOD, Toxicity of lead, mercury, arsenic and Cadmium.

Unit-III: Bioinorganic Chemistry:

Essential elements, biological significance of Na, K, Mg, Ca, Fe, Metalloporphyrin – Structure and functions of hemoglobin, Myoglobin.

Unit-IV: Biological functions of Hormones:

Introduction,Types of harmones, Role of Anderstrone, Progestrone and thyroxin, action of cortisone, Insulin.

Unit-V: Medicinal Chemistry:

The role of vitamins – K,E,D,C,B – complex, classification of antibiotics, mechanism of antibiotics action - role of ampicillin, chloromycetin and amoxicillin as antibiotics.

Text books/ Reference books:

1. Laboratory safety for Chemistry Students by Robert H. Hill and David Finster

2. A Text book of Environmental chemistry by W. Moore and F.A. Moore

3. Environmental Chemistry by Samir K. Banerji

4. Organic Chemistry by G. Mare Loudan, Purdue University

5. Unified Chemistry by O.P. Agarwal, Paper-III, JPNP Publications.

6. Hormones and Endocrine system – Kleine, Rossemanith.

7. Principles of Biochemistry-Leninger.

8. Essentials of Medical pharmacology- K. D. Tripathi.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(Autonomous)
DEPARTMENT OF CHEMISTRY
M.Sc – CHEMISTRY (ORGANIC CHEMISTRY)
II SEMESTER
Paper Code & Title: CH206L1: ORGANIC CHEMISTRY PRACTICAL-II

No. of hours per week: 03 Total credits: 03
Total marks: 100 (Internal: 30 M & External: 70M)

Course Learning Objective(S): The main objective of this paper is to give a practical knowledge
for the students on Organic chemistry practical.

List of experiments:
1. Preparation of organic compounds: Single stage preparations by reactions involving nitration, Halogenations, oxidation, reduction, alkylation, acylation, condensation and rearrangement. (A student is expected to prepare at least 5 different organic compounds by making use of the Reactions given above).
2. Preparation of organic compounds: Two stage preparations by reactions involving nitration, Halogenations, oxidation, reduction, alkylation, acylation, condensation and rearrangement. (A student is expected to prepare at least 5 different organic compounds by making use of the reactions given above).
3. Systematic qualitative analysis of organic compounds with different functional groups (5 Different compounds)

Course Learning Outcome(S): After studying this paper, students will acquire the knowledge of
Organic chemistry practical.

Text books/ Reference books:
1. A.I.Vogel, "A Text Book of Practical Organic Chemistry", Longman
2. A.I.Vogel, "Elementary Practical Organic Chemistry", Longman
3. Practical Organic Chemistry, F.G.Mann and B.C.Saunders, Longman.
4. Reaction and Synthesis in Organic Laboratory, B.S.Furniss, A.J.Hannaford, Tatchell, University Science Books Mills valley.
5. Purification of Laboratory chemicals, manual, W.L.F. Armarego EDD Perrin.
6. Reaction and Synthesis in Organic Chemistry Laboratory, Lutz-Friedjan-Tietze, TheophilEicher, University Science Book.

NOTE: Percentageof Change - 0%

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(Autonomous)
DEPARTMENT OF CHEMISTRY
M.Sc – CHEMISTRY (ORGANIC CHEMISTRY)
II SEMESTER

Paper Code & Title: CH207L2: PHYSICAL CHEMISTRY PRACTIAL

No. of hours per week: 03 Total credits: 03
Total marks: 100 (Internal: 30 M & External: 70M)

Course Learning Objective(S): The main objective of this paper is to give a practical knowledge
for the students on Inorganic and Physical chemistry experiments.

List of experiments:
1. Relative strengths of acids by studying the hydrolysis of ethyl acetate / methyl acetate.
2. Determination of equilibrium constant of KI3 KI + I2 by partition coefficient.
3. Determination of unknown concentration of potassium iodide by partition coefficient method.
4. Distribution coefficient of Benzoic acid between Benzene and water.
5. Determination of critical solution temperature of phenol-water system.
6. Study of the effect of electrolyte on the miscibility of phenol-water system.
7. Determination of Coordination number of cuprammoniumcation.
8. Potentiometric determination of Fe(II) with Cr (VI).
9. Potentiometric determination of Fe(II) with Ce (IV).
10. pH-metric determination of strong acid with strong base.
11. Conduct metric titration of strong acid with strong base.
12. Conductometric titration of strong acid + Weak acid with strong base.
13. Dissociation constant of weak acid (CH3COOH) by conductometric method.
14. Determination of cell constant.
15. Verification of Beers Law using potassium permanganate/Potassium dichromate.

Course Learning Outcome(S): After studying this paper, students will acquire the knowledge of
Inorganic and Physical chemistry experiments.

Text books/ Reference books:
1. Experimental Physical chemistry by V.D. Athawale, Parul Mathur, New Age International publishers.
2. Physical chemistry experiments by V. P. Kudesia, Pragati Prakasan publishers.
3. Advanced practical Physical chemistry by J.B. Yadav, Krishna's educational publishers.

NOTE: Percentage ofChange–27% (Increment)

M.Sc. DEGREE EXAMINATION
SECOND SEMESTER

Paper-I: ORGANIC SPECTROSCOPY

Time: 3 hours **Maximum Marks: 70**

SECTION – A

Answer all the questions. Each question carries 2 marks. (10x2=20M)

1. Discuss Auxochromes in UV visible spectroscopy in short. (CO-2)
2. Explain Wood ward fieser rules. (CO-2)
3. What is finger print region in IR Spectroscopy and discuss its importance (CO-3)
4. Discuss the mechanics of measurements in IR Spectroscopy in short. (CO-2)
5. Illustrate the basic principle of NMR spectroscopy. (CO-1)
6. What is chemical shift? Explain the significance of δ – scale. (CO-2)
7. Elaborate the importance of nitrogen rule in Mass Spectrometry. (CO-2)
8. Explain the role EI technique in ionization of molecules. (CO-2)
9. What is Stevenson's rule? (CO-1)
10. Write the list out the general modes of fragmentation. (CO-1)

SECTION – B (10x5=50M)

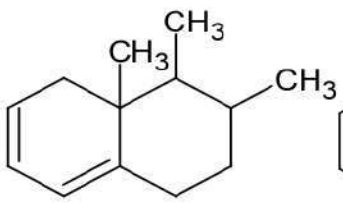
UNIT - I

11.a)Write a detaild note on i)Types of shifts in UV ii) Electronic transitions in UV.(CO-2,L-2)

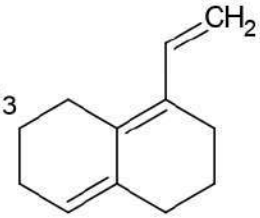
(Or)

b) Calculate the λ max of the following compounds (CO-4, L-4)

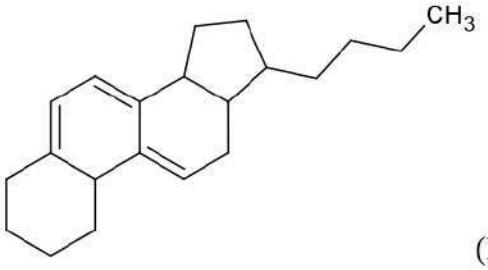
(i)



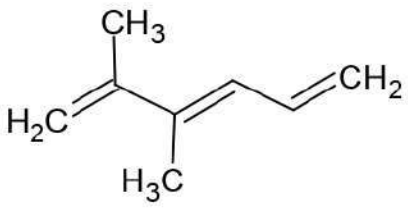
(ii)



(iii)



(IV)



UNIT – II

12.a) Write a note on i) fundamental modes of vibrations ii) Factors effecting IR stretching Frequency of organic compounds. (CO-3,L-3)

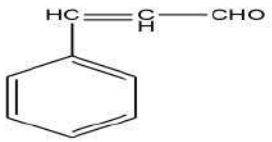
(Or)

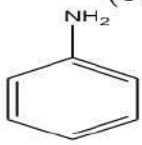
b) How will you distinguish o-hydroxybenzaldehyde and p-hydroxybenzaldehyde on the basis of IR spectroscopy ii) How will you distinguish the following pairs by the use of Their IR spectra (i) CH_3CH_2CHO and CH_3COCH_3 (ii) CH_3CH2NH_2 and CH_3NHCH_3 (CO-3,L-3)

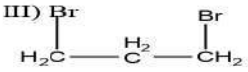
UNIT – III

13. a) Define Chemical shift. Give an account on Chemical exchange in NMR. (CO- 2)

b) Predict the number of signals and their chemical shift in each of the following Compounds (CO-3)

I) 

II) 

III) 

(Or)

c) A compound of Molecular weight 122, in its PMR Spectrum shows 1.4(T,3H) .0(Q, 2H), 6.8-7.2(M, 5H). Write structure of compound using above data. (CO-3)

d) Explain the coupling constant in NMR and describe about various types of Coupling constants (CO-2)

UNIT - IV

14 a) The mass spectrum of an unknown compound shows a molecular ion peak at m/z =78 with a relative intensity of 23.6 and the relative intensities of the Isotopic peaks are as follows m/z 79(1.00), 80(7.55), 81(.25) .what is the Molecular formula of this unknown? (CO- 3)

(Or)

b) what is the principle of mass spectrometry?. Discuss some quantitative and qualitative applications of mass spectrometry. (CO-2)

UNIT - V

15 a) In the mass spectrum of 1-hexanol , a very weak molecular ion peak appears at m/z = 102 . Some other prominent peaks appear at m/z values of 100,99,84 56(base peak) and 31 . What are the most probable species responsible for the above mentioned peak positions. (CO-3)

(Or)

b) How mass spectrum is useful to distinguish between $1^0,2^0,3^0$ aliphatic amines? (CO- 4)

c) Illustrate Mc Lafferty rearrangement with suitable examples (CO-2)

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M.Sc. DEGREE EXAMINATION
SECOND SEMESTER

Paper-II :: Inorganic Chemistry - II

Time: 3 hours **Maximum Marks: 70**

SECTION – A

Answer all the questions. Each question carries 2 marks. (10x2=20M)

1. Write a short note on Phosphorous-Sulphur cages. (CO-2)
2. Explain the bonding aspects of $[Nb_6Cl_{12}]^{-2}$. (CO-2)
3. Define hapticity. (CO-1)
4. Elaborate the classification of organometallic compounds. (CO-1)
5. Derive rate law ofAnation reaction. (CO-2)
6. Write note on complementary and non-complementary reactions. (CO-2)
7. Discuss how Hund's rules can be used to predict ground terms. (CO-2)
8. Derive the ground term of d^3 and d^9 metal ions. (CO-3)
9. Give a short account on Faraday Effect. (CO-2)
10. Deliberate the effect of spin orbital coupling on magnetic moments.(CO-3)

SECTION – B **(10x5=50M)**

UNIT - I

11.a) Describe the bonding and structure in higher boranes and Metalloboranes. (CO-2)

(Or)

b) Discuss the structure and bonding in $[Re_2Cl_8]^{2-}$ ion. (CO-2)

UNIT – II

12. a) Elucidate the applications of organometallic compounds in catalytic hydrogenation and hydro formylation. (CO-3)

(Or)

b) Explain oxidative addition, reductive elimination reactions of organometallic compounds. (CO-2)

UNIT – III

13. a) Explain the outer sphere mechanism of redox reactions. (CO-2)

(Or)

b) Discuss the direct and indirect evidences in favour of conjugate base mechanism. (CO-3)

UNIT - IV

14. a) Discuss the calculation of D_q and β parameters. (CO-3)

(Or)

b) Draw the orgel diagram and Tanabe Sugano diagram for d^2 and d^9 Configuration and explain. (CO-2)

UNIT - V

15. a) Discuss the storage of dioxygen by myoglobin and write its importance. (CO-2)

(Or)

b) Describe the factors affecting para magnetism. (CO-2)

M.Sc. DEGREE EXAMINATION
SECOND SEMESTER

Paper-III :: Organic Chemistry - II

Time: 3 hours **Maximum Marks: 70**

SECTION – A

Answer all the questions. Each question carries 2 marks. (10x2=20M)

1. Explain Shaciro reaction. (CO - 2)
2. Explain stobbe condensation. (CO - 2)
3. Write notes on configuration and conformation. (CO - 1)
4. Explain enantiomers with suitable examples. (CO - 1)
5. Draw the structures of the cyclohexane boat and twist boat structures. (CO - 1)
6. Discuss conformation and intramolecular hydrogen bonding. (CO - 2)
7. Discuss Clean Fischer Indole synthesis (CO - 3)
8. Write notes on Biocatalysis. (CO - 1)
9. Define nano explain. (CO - 1)
10. Writegeneral properties of carbon nano tubes. (CO - 1)

SECTION – B **(10x5=50M)**

UNIT - I

11. a) Discuss the mechanism of the following
(i) Benzoin condensation. (ii) Reformatsky reaction. (CO - 2)

(Or)

b) Discuss the definition and mechanism of
(i) Wittig reaction (ii) Acyloin condensation. (CO - 2)

UNIT - II

12. a) Explain the various elements of symmetry with suitable examples. (CO - 1)

(Or)

b) Discuss the various methods for determination of configuration of geometrical isomers with suitable examples. (CO - 1)

UNIT - III

13. a) Discuss the conformational analysis of cyclohexane and explain the stabilites.(CO - 1)

(Or)

b) Write an account of comformation around C – N and C – O hetero atom bonds.(CO -1)

UNIT – IV

14. a) Discuss the principles of green chemistry. (CO - 2)

(Or)

ADUSUMILLI GOPALAKRISHNAIAH & SUGAR CANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165, KRISHNA Dt., A.P. (AUTONOMOUS)

DEPARTMENT OF COMMERCE(PG)

M.Com

2020-2021

BOARD OF STUDIES

Minutes of Meeting

30-11-2020

DEPARTMENT OF COMMERCE (PG)

Minutes of the Board of Studies Meeting (Online) of Department of Commerce for M.Com held on 30/11/2020 at 11 AM. The following members were present.

Members Present		
Name of the Member	**Role**	**Signature**
Dr. T.Venkateswara Rao HOD PG Department of Commerce Mobile : 9848726150/9491737921	Chairman	
Dr. R. Padmaja, Assistant Professor in Business Management, Krishna University, Machilipatnam. Mobile: 9440532444,	University Nominee	
Dr. R. Siva Ram Prasad Professor, Dean, Department of Commerce & Business Administration , Acharya Nagarjuna University, Nagarjuna Nagar. Mobile : 98498 56589	Subject Expert	
Sri V.V. Punna Rao General Manager KCP Sugars Pvt. Ltd., Vuyyuru Mobile : 97044 56972	Industry Expert	V V Punna Rao
Prof. Rajesh C Jampala Dean Department of Commerce and Business Management PBS COLLEGE OF ARTS AND SCIENCE VIJAYAWADA Mobile : 98668 06069	Subject Expert	
Abdul Jabbar Vuyyuru Mobile : 70958 77869	One Post Graduate Meritorious Aluminous nominated by the Principal	Abdul Jabbar
Smt. P. Soumya Dept. of Commerce(P.G) AG & SG S College, Vuyyuru	Member	
Miss V. Anitha Dept. of Commerce (P.G) AG & SG S College, Vuyyuru	Member	
Miss P. Mohana Krishnasri Dept. of Commerce (P.G) AG & SG S College, Vuyyuru	Member	P.M.Krishna Sree

Agenda for B.O.S Meeting

1. To recommend syllabi for 1st and 2nd semesters of 1st M.com. Course for the Academic Year 2020-2021.
2. To recommend the Model Question Papers and guidelines of 1st and 2nd semesters of First M.com. For the Academic Year 2020-2021.
3. To recommend the guidelines to be followed by the Question Paper setters in 1st M.com for the 1st and 2nd semester- end exams.
4. To recommend the teaching and evaluation methods to be followed under Autonomous status.
5. Any suggestions regarding Seminars, Workshops, Guest lectures and research work to be organized.
6. Recommend the panel of paper setters and examiners to the controller of Examination of Autonomous courses of AG & SG Siddhartha degree college of Arts and Science College, Vuyyuru.
7. Any other matter.

RESOLUTIONS

1. Discussed and recommended the syllabi of 1st and 2nd semester of 1st M.com. For the approval of the Academic Council.
2. Discussed and recommended the model question papers of 1st and 2nd semesters of First M.com, for the approval of the Academic Council.
3. Discussed and recommended the guidelines to be followed by the question paper setter of 1st M.com for 1st and 2nd semester's .For the approval of the Academic Council.
4. Discussed and recommended the following teaching and evaluation methods for approval of Academic Council.

   Teaching methods:

   Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector to display on U boards and online teaching etc., for better understanding of concept.

   Evaluation of student is done by the following procedure:

   Internal Assessment Examinations:

   i) Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment.

   ii) Out of these 30 marks, 20 marks are allocated for announced internal tests. Four announced internal tests will be conducted and average of these Four tests shall be deemed as the marks obtained by the students, out of 10 marks 5 marks are allocated to assignments and seminars and remaining 5 marks are allocated to candidate's percentage of attendance.

   Semester-End Examinations:

   i) The maximum marks for Semester-End Examinations shall be 70 marks and duration of the examination shall be 3 Hours.

   ii) Semester-End Examinations shall be conducted in theory papers at the end of every semester.
5. Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.
6. Discussed and empowered the H.O.D to suggest the panel of paper setters and Examiners to the Controller of Examinations.
7. Nil.

Chairman.

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.
(An autonomous college in the jurisdiction of Krishna University, Machilipatnam)

M.COM SEMESTER – I
SYLLABUS

CO101: MANAGEMENT THEORY AND PRACTICE

Unit–I: **Introduction: Management, Concept, Significance, Levels, Skills**, Functions and Principles - Management as an Art, Science and Profession – **Social responsibilities of business**.

Unit–II: Planning: Nature, Purpose, Process of Planning, Types of Plans – Premising & Forecasting, Decision Making: Concept, Process, Management By Objectives: Concepts, Process. Advantages and Limitations.

Unit–III: **Organizing: Process - Formal and Informal Organizations -Depart mentation: Methods of departmentation**, Span of Control; V.A. Graicuna's Theory - Factors Determining Span of Control - Delegation: Concept, Process, Advantages and Principles of Effective Delegation; Decentralization: Factors, Advantages and Disadvantages. Line and Staff: Concept- Reasons for Conflicts between Line and Staff and Measures to Overcome; Committees, Types of Committees.

Unit–IV: **Staffing: Nature and Importance of Staffing, Elements of Staffing**. **Directing:** Meaning, Assumptions of Human Behavior by Douglas McGregor, Edgar Shien and Elton Mayo.
Unit–V: **Motivation: Significance, Process**-Theories of Maslow, Herzberg, Porter and Lawler; Leadership: Trait Approach, Leadership Styles, Managerial Grid; Likert's Four Systems of Leadership- **Communication: Importance, Process, Barriers, Measures to overcome Barriers of an Effective Communication. Controlling:** Basis - Control Process, Requirements of adequate Control - Techniques of control, PERT and CPM

Suggested Books:

- Heinz Wihrich., H.Koontz and Markv Cannice, ***Management,*** 13ed. 2010, Tata McGraw, New Delhi
- Prasad L.M, Principles and Practice of Management, Edition2019, Sultan Chand and Sons, New Delhi.
- Rama Swamy T, Principles of Management. First Ed,.2014, Himalaya Publishing House, Mumbai.

Stoner, J. ***Management,*** 6th ed., 1995, Pearson Education, New Delhi

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M.COM. DEGREE EXAMINATIONS - First Semester

MANAGEMENT THEORY AND PRACTICE

(2017-2018 Regulation Onwards)

Duration: 3 hours **MODEL QUESTION PAPER** **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Concept of management

OR

b) Sills of management

ii. a) Explain the purpose of Planning

OR

b) Distinguish between the concepts Delegation and Decentralization.

iii. a) Classify the types of Committees.

OR

b) Define Departmentation.

iv. a) Define Staffing.

OR

b) Explain Executive Development Programme

v. a) Show the list of Leadership Traits.

OR

b) Define PERT AND CPM.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Explain the Nature and significance of Management.

(Or)

b) Discuss the functions of Management.

3. **a)** Define MBO. Explain the steps in MBO process.

(Or)

b) Describe steps in the process of Planning.

4. **a)** Examine the methods of Departmentation with merit and limitations of each.

(Or)

b) Define Span of Management. Analyze determining factors that influence span of management.

5. **a**) Identify the nature and elements of staffing.

(Or)

b) Distinguish between theory X and theory Y proposed by McGregor.

6. **a**)Examine the motivation theory of Need Hierarchy**.**

(**Or)**

b) Define Leadership. Categorize the Styles of leadership

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. **a**) Define Management. Explain the 14 principles of management as given by Henry Fayol.

(Or)

b) Define Communication. Analyze various barriers to effective communication. Suggest Measures to make communication more effective

The Guidelines to be followed by the question paper setters in **MANAGEMENT THEORY AND PRACTICE** for the first semester-end exams

PAPER TITLE: **MANAGEMENT THEORY AND PRACTICE**

PAPER-1 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: **Management Theory and Practice**	Course: M.Com.	Course Code: CO111	Department: Commerce (PG)
1. Dr.Md.S.Rahaman Associate Professor, Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. : 9866965767.		2. Dr. S.Srinivasa Rao, Assistant Professor, Department of Commerce, T.J.P.S.College, Guntur. Mobile No.: 9440887484.	

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M.COM SEMESTER – I
SYLLABUS

CO102: BUSINESS ECONOMICS

Unit-I: **Introduction – Definition, Nature and Scope of Managerial Economics**; Economic Goals of a Business Firm: Profit Maximization Vs Wealth Maximization, Sales Revenue Maximization.

Unit-II: **Consumer Equilibrium under Cardinal and Ordinal Utility - Demand Analysis** – Law of Demand – Demand Function and determinants of Market Demand – Concept of Price, Cross, Income and Promotional Elasticity; their measurement and relevance in Managerial Decision – Making Methods of Demand Forecasting.

Unit-III: **Firm's Equilibrium – Iso-quant and Iso-cost analysis; Least – Cost Combination of inputs –** The law of Diminishing Marginal Returns in Production – Production Function – Total Product, Marginal and Average Product Curves, their inter – relationships – Cobb – Douglas Production Function and its relevance - Scale and proportion, Cost Functions – Derivation of total, marginal and average cost functions – Long run cost curves

Unit-IV: **Market Structures and their characteristics** – Pricing and output Decisions of firm under different Market structures – Perfect Competition, Pure Monopoly, Oligopoly, Monopolistic / Imperfect Competition under short and long runs. Discriminative Monopoly Regulation of Monopoly through Prices and Taxes.

Unit-V: **Pricing Practices of Firms – Objectives of Pricing Policy** – Approaches to Pricing New Products; Skimming Price, Penetration Pricing, Costs Plus Pricing, Managerial Cost Pricing, Psychological Pricing, Odd Number Pricing, Regulated Pricing, Predatory Pricing

Suggested Books:

- Gauvrav Datt and Ashwani Mahajan, Indian Economy. 5th Ed, 2015, S Chand and Co, New Delhi.
- Mithani DM, Managerial Economics-Theory and Applications,5th Ed,2010,Himalaya publishing house ,Mumbai.
- Thomas R, Christopher Charles, Maurice, "Managerial Economics: Concepts and .Applications", 4th 2012, Tata McGraw-Hill, New Delhi..

Sudip Chaudhuri, Anindya Sen, Economics,19th Ed,2016,Tata Mc Grail Education Pvt Ltd, New Delhi

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS

First Semester

BUSINESS ECONOMICS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Define Wealth maximization

OR

b) Distinguish Business Economics from Managerial Economics.

ii. a) Explain Demand function

OR

b) Explain Consumer Equilibrium

iii. a) What is Marginal cost

OR

b) Explain Cobb-Douglas production function.

iv. a) Define Perfect competition.

OR

b) Define Oligopoly.

v. a) Explain Penetration Pricing.

OR

b) Analyse Good value strategy.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Define Business economics? Discuss its nature and scope?

(OR)

b) What are the economic goals of a firm?

3. a) What is the meaning of Demand? What are the determinants of market demand?

(OR)

b) Explain about the income elasticity of demand with some examples?

4. a) Examine the firm's equilibrium using ISOCOST and ISOQUANT Analysis?

(OR)

b) Explain the managerial uses of cost concepts?

5. a) Distinguish between perfect competition and monopolistic competition?

(OR)

b) Explain the features of oligopoly?

6. a) Examine briefly about objectives of pricing policy?

(OR)

b) Outline in detail about cost plus pricing and managerial cost pricing?

SECTION C - (1 x 10=10 marks)

Answer the following question.

7. a) Discuss how price determined under perfect competitive market?

(OR)

b) Explain the cost output relationships both in short-run and long-run?

The Guidelines to be followed by the question paper setters in BUSINESS ECONOMICS for the first semester-end exams

PAPER TITLE: BUSINESS ECONOMICS

PAPER-2 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Business Economics	Course: M.Com	Course Code: CO112	Department:Commerce (PG)
1. Dr.J.Durga Prasad Associate Professor, Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science, Vijayawada. Mobile No. 9848515628.		2. Dr. K.Sivaji, Assistant Professor, Department of Commerce & Business & Administration, T.J.P.S.College, Guntur. Mobile No.: 9440520219.	

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M.COM SEMESTER – I
SYLLABUS

CO103: BUSINESS ENVIRONMENT

Unit-I: Business Environment: Components and Significance - Nature of Business Environment - Techniques of Environmental Scanning and Monitoring **– Economic Scope – Cultural, Political, Technological and External Factors Influencing Business Environment – Challenges- Economic systems.**

Unit-II: Economic Environment of Business: Significance for Business – Economic Planning – Objectives and Achievements; Government policies – Industrial policy of 1991; Fiscal policy; **Economic Reforms and LPG**

Unit-III: Political and Legal Environment of Business: Political Institutions – Legislature, Executive and Judiciary – Changing Dimensions of Legal Environment in India; **Patents Act-1970, SICA-1985, SEZ Act-2005.**

Unit-IV: **Cultural and Technological Environment**: **Elements of Socio – Cultural Environment; Impact on Business – Social Audit** - Technological Environment in India; Technology Transfer – Technology Policy.

Unit -V: International and Recent Issues in Environment: Multinational Corporations; Foreign Collaborations and Indian Business; International Economic Institutions: **WTO, World Bank, IMF and their importance to India;** Foreign Trade Policies.

Suggested Books

1. Francis Cherunilam, ***Business Environment***, 25th revised edition 2017,Himalaya Publishing House, Mumbai.
2. Fernando, A.C., ***Business Environment***, 1st edition 2011, Pearson, Delhi.
3. Suresh Bedi, ***Business Environment,*** 1st edition 2005, Excel Books, New Delhi,
4. Adhikary.M. ***Economic Environment of Business***, 2004, Sultan Chand & Sons, New Delhi.
5. Aswathappa.K. ***Essentials of Business Environment***, 12th revised edition 2014, Himalaya Publishing, Delhi.
6. Justin Paul, ***Business Environment***, Text and Cases, 12th edition 2018, Tata McGraw Hill.
7. H.L.Ahuja, "***Economic Environment of Business",*** 13th edition 2016, S.Chand, New Delhi.

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS

First Semester

BUSINESS ENVIRONMENT

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Define Concept of Environment (CO1)(L1)

OR

b) Explain Business Environment Scanning (CO1)(L2)

ii. a) Examine the Significance of Economic Environment of Business(CO2) (L4)

OR

b) Define LPG (CO2) (L1)

iii. a) Define Political Institutions (CO3) (L1)

OR

b) Define Legal Environment in India (CO3) (L1)

iv. a) Define Cultural Environment (CO4) (L1)

OR

b) Define Technological Policy (CO4) (L1)

v. a) Define Foreign Collaboration(CO5) (L1)

OR

b) Define WTO(CO5) (L1)

SECTION – B

Answer All Questions **5×8=40Marks**

2. (a) Define Business Environment? Explain the nature and significance of Business Environment? (CO1) (L1)

(OR)

(b) Explain various techniques of environmental scanning? (CO1) (L2)

3. (a) What is economic planning? Explain the objectives of present economic plan? (CO2) (L1)

(OR)

(b) Critically examine the new industrial policy resolutions? (CO2) (L4)

4. (a) Define the political institutions? Explain the role of Government towards Business. (CO3) (L1) (L2)

(OR)

(b) Identify the role of SEZ act 2005 in the present context? (CO3) (L3)

5. (a) Explain the elements of socio-cultural elements? (CO4) (L2)

(OR)

(b) Discuss the importance of technological environment in India? (CO4) (L6)

6. (a) Define MNC? Explain the scope and importance of MNC? (CO5) (L1)(L2)

(OR)

(b) Determine the role of IMF in India? (CO5) (L5)

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. **(a)** Define privatization? Explain the merits and demerits of privatization? (CO3)(L1)(L2)

(OR)

(b) Why WTO replaced GATT - Impact of Regional Trading Agreement on WTO? (CO5) (L1)

The Guidelines to be followed by the question paper setters in BUSINESS ENVIRONMENT for the first semester-end exams

PAPER TITLE: BUSINESS ENVIRONMENT

PAPER-3 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Business Environment	Course: M.Com	Course Code: CO113	Department:Commerce (PG)
1. Mrs.B.Kalpana Assistant Professor Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 7842669134.		2. Dr.J.Pratap Reddy, Professor, Dept.of Commerce, T.J.P.S.College, Guntur, Mobile: 9440542609.	

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M.COM SEMESTER – I

SYLLABUS

CO104: ENTREPRENEURSHIP DEVELOPMENT

UNIT-I:

Entrepreneur: Evolution, Characteristics, Types, Functions of Entrepreneur - Factors influencing entrepreneurship - Barriers to entrepreneurship - Growth of Entrepreneurship in India -Women entrepreneurship in India - Role of Entrepreneurship in Economic Development

UNIT-II:

Idea Generation and Opportunity Assessment: Importance of Ideas in Entrepreneurship - Sources of New Ideas – Techniques for generating ideas- Steps in assessing business potential of an idea- Opportunity Recognition- sources and process- Steps in tapping opportunity.

UNIT-III:

Financing Of Enterprises: Need for Financial Planning- Sources of finance, Capital Structure, Term-loan, - Sources of Short-Term Finance, Venture capital, Export Finance**,-** Institutional Finance To Entrepreneurs, - Preparation of Business Plans**.**

UNIT-IV:

Institution support in small business enterprises: Introduction **–** central level institutions-KVIC;SIDO;NSIC ltd; National Productivity Council (NPC); EDII – State level institutions –DIC-SFC-SSIDC-Industry Associations- CII;FICCI;ASSOCHAM**.**

UNIT-V:

Government Policy and Taxation Benefits : Government Policy for SSIs- Need for tax benefits-Tax Holiday; Rehabilitation allowance ; Investment allowance ; Tax concessions for SSIs in rural and Rural and backward areas**.**

TEXT BOOKS

1. Osterwalder, Alexander and Yves Pigneur; "Business Model Generation", John Wiley & Sons, New Jersey, 2012.
2. Roy Rajeev,"Entrepreneurship" Oxford Latest Edition,2008

REFERENCE

1. Arya Kumar, Entrepreneurship, 1st Edition, Pearson, Delhi, 2012.
2. Poornima M. Ch., Entrepreneurship Development- Small Business Enterprises, 1st Edition, Pearson,Delhi, 2009
3. Afuah, Allan; "Business Models: A Strategic Management Approach", 1st Edition, McGraw-Hill, New York, 2004.
4. E. Gordon & K. Natarajan "Entrepreneurship Development" 6th Revised Edition, Himalaya Publishing house, 2008,

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MODEL QUESTION PAPER
M.COM. DEGREE EXAMINATIONS
First Semester
ENTREPRENEURSHIP DEVELOPMENT
(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Distinguish Entrepreneurship Vs. Intrapreneurship.

OR

b) Define an Enterpreneur

ii. a) Define the source of Ideas.

OR

b) Business Development

iii. a) What do you mean by Working Capital Management ?

OR

b) Project appraisal

iv. a) KVIC

OR

b) CII

v. a) Meaning of SSIs or

OR

b) Explain Tax Holiday

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Explain the importance of entrepreneurship in economic development.

(Or)

b) Elaborate the role of women entrepreneurship in India.

3. a) What are the steps in assessing business potential of an idea?

(Or)

b) Explain the importance of ideas in entrepreneurship.

4. a) What is meant by Venture Capital? Explain the relevance of Venture Capital finance in Economic Development.

(Or)

b) Discover the role of institutional finance in entrepreneurship development.

5. a) Examine the role of SFC in supporting small business enterprises in India.

(Or)

b) Evaluate the role of SFC in supporting small business enterprises

6. a) Critically examine the policy of the Govt. towards SSIs.

(Or)

b)What are the tax concessions available to SSIs in rural and backward areas?.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. a) What are the guidelines observed for project report preparation?

(Or)

a) Distinguish between management and entrepreneurship.

The Guidelines to be followed by the question paper setters in ENTREPRENEURSHIP DEVELOPMENT for the first semester-end exams

PAPER TITLE: ENTREPRENEURSHIP DEVELOPMENT

PAPER-4 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Entrepreneurship Development	Course: M.Com	Course Code: CO114	Department:Commerce (PG)
1. Mrs.G.Lalitha Madhavi Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No.: 7799209460		2. Dr. S.Srinivasa Rao, Assistant Professor, Department of Commerce, T.J.P.S.College, Guntur. Mobile No.: 9440887484.	

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.
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M.COM SEMESTER – I
SYLLABUS

CO105: INFORMATION TECHNOLOGY FOR BUSINESS

Unit-I: Information Technology (IT) in Business Environment: Business in the Information Age - Pressures and Responses, Why do we need to know about Information Technology, What is an Information System, Capabilities of Information Systems - Basic concepts of Information Systems, organizations - Structures and IT support - IT support at different organizational levels, Managing IT in organizations

Unit-II: IT Infrastructure: Computer Hardware - Input Technologies, Output Technologies - Computer Software - Types of software, general functions of Operating system, Types of application software - Managing organizational Data and Information - Basics of Data arrangement and Access, Traditional file Environment. Databases: Modern Approach, Database Management Systems - Logical Data Models, Data Warehouse. Telecommunications systems and Networks - Network communications software, Internet: Services provided by Internet, World Wide Web, Intranets and Extranets.

Unit-III: Information Systems to Support Business Functions: Transaction Processing Systems, Accounting and Finance Systems, Production Management Systems, Human Resources Management Systems, Integrated Information Systems and Enterprise Resource Planning, Inter-organizational/Global Information Systems. Electronic Commerce - Types, Benefits of E- Commerce, Infrastructure and E-commerce support, Legal and ethical issues in E-commerce. Computer-based Supply chain management and IS Integration: IT supply chain support and systems Integration: Enterprise Resource Planning.

Unit-IV: Data, Knowledge and Decision Support: Decision making and Decision support systems, Enterprise Decision support, Knowledge Management and Organizational Knowledge bases. Intelligent systems in Business: Export systems, Intelligent Agents.

Unit-V: Strategic Advantage and Information Technology: Strategic Organizations in the Information Age, Business Process Re-engineering, Virtual corporations and Information Technology - Implementing IT: Ethics, Impacts and Society, Ethical Issues, Impact of IT on Organizations and Jobs, on Individuals at Work, Societal Impact and Internet Communities, Protecting Information Systems.

Reference Books:

1. V. Rajaraman- Introduction to Information Technology 2nd Edition (2013), PHI
2. Turban/Rainer/Potter- Introduction to Information Technology, 3rd Edition Willey.
3. Alexis Leon, Mathew Leon, Fundamentals of Information Technology, 2nd Edition (2015) LeonVikas.
4. Turban/Volonino/Wood/O.P. Wali - Information Technology for Management,(2015).

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS

First Semester

INFORMATION TECHNOLOGY FOR BUSINESS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) What are the differences between Information Technology and Information Systems?

OR

b) What are the capabilities of information system?

ii. a) What are the various input devices of the computers?

OR

b)What are the differences between intranet and extranet

iii. a) Distinguish integrated information systems

OR

b) What is a human resource management systems

iv. a) What are the differences between decision making and decision support systems

OR

b) Explain knowledge management bases

v. a) Explain internet communities.

OR

b) What do you mean by business process re-engineering?

SECTION – B

Answer All Questions **5×8=40Marks**

2. a)What is an Information system. Explain the capabilities of Information systems

(OR)

b) Explain about Information Technology in organizations.

3. a) What is an operating system. Explain the general functions of operating systems.

(OR)

b) What are the differences between File based approach and Database Approach.

4. a)Explain the types and benefits of E-commerce.

(OR)

b) Explain briefly about computer based supply chain management.

5. a) Explain briefly about the features, benefits and limitations of export systems.

(OR)

b) Explain intelligent agents and how they are used in today business.

6. a) Explain how Information Technology is implemented in organization and its impact on society.

(OR)

b) What are the ethical issues involved in implementing Information Technology.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. a) What is DBMS. Explain the architecture and benefits of this system

(OR)

b) Explain the societal impacts of Information Technology and different ways of protecting Information Systems

The Guidelines to be followed by the question paper setters in INFORMATION TECHNOLOGY FOR BUSINESS for the first semester-end exams

PAPER TITLE: INFORMATION TECHNOLOGY FOR BUSINESS

PAPER-5 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Information Technology For Business	Course: M.Com	Course Code: CO115	Department:Commerce (PG)

1. Mrs.K.Sirisha, Lecturer, Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No.: 7032617871	2 Dr. K.Sivaji, Assistant Professor, Department of Commerce & Business & Administration, T.J.P.S.College, Guntur. Mobile No.: 9440520219

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.
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M.COM SEMESTER – I
SYLLABUS

CO106: QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

UNIT-I: Matrices, Differentiation, Permutations and combinations: **Matrices –Basic concepts** ,Solving system of equations with Cramer's rule and Inverse method - Differentiation and integration of simple functions and their applications- Permutations and Combinations.

UNIT-II: Correlation and Regression: Correlation: **Types of Correlation** - Simple and Rank Correlation coefficient in the case of two variables- **Regression**: **Meaning and importance of Regression Analysis**. Estimation of Lines of Regression in the case of two variables.

UNIT-III: Probability: Concept of Probability: Definitions of Probability, Addition Theorem of Probability, Conditional Probability and Multiplication theorems of Probability, Baye's Theorem of Probability and its **Applications**.

UNIT- IV: Theoretical distributions: Binomial Distribution, Poisson distribution and Normal distribution – their **Properties and Applications.**

UNIT-V: Testing of Hypothesis: Concept of Testing of Hypothesis, Types of Errors, Standard deviations and Proportions, Z- test for Means, T-test, F-test for two variances and Chi-Square test for goodness of fit and independent of Attributes and their Applications – Confidence intervals.

Suggested Books:

1. S.C. Gupta.-, Fundamentals of Statistics, 7th Revised Edition (2013) Himalaya Publishing House, New Delhi..
2. Sharma, J.K.-, Fundamentals of Business Statistics, 2nd Edition (2000) Pearson Education, New Delhi..
3. Sancheti, Dc & V.K Kapoor, Business Mathematics, 3rd Edition (2014) Sultan Chand &Sons, New Delhi..
4. Arora, P. N., S. Arora- Comprehensive Statistical Methods, 2nd Edition (2007) S. Chand, New Delhi.
5. Sharma, J.K., Quantitative Methods- Theory & Applications,3rd Edition (2010)Macmillan New Delhi.\

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS - First Semester

QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Explain permutations and combinations.

OR

b) Distinguish Differentiation from Integration

ii. a) What is correlation and explain different types of correlation?

OR

b) What are the properties of regression coefficients?

iii. a) State Addition Theorem of Probability

OR

b) Define i) Exhaustive events ii) Equally likely events

iv. a) What is the importance of Poisson distribution?

OR

b) What are the properties of Binomial Distribution

v. a) Distinguish between Type-I and Type-II errors

OR

b) Explain the procedure for testing of hypothesis

SECTION – B

Answer All Questions **5×8=40Marks**

2.a) Solve the following Simultaneous Linear Equations by using Cramer's Rule

2x+y-Z=3; x+y+z =1; x-2y-3Z=4

OR

b)A company has examined its cost structure and revenue structure and has determined that C the total cost, R total revenue, and x the number of units produced are related as: $C=100+0.015\ x^2$ and R=3x Find the production rate x that will maximize profits of the company. Find that profit. Find also the profit when x=120.

3. a) Find the Karl Pearson's Coefficient of Correlation from the following data:

Marks in Economics	45	55	56	58	60	65	68	70	75	80	85
Marks in Statistics	56	50	48	60	62	64	65	70	74	82	90

OR

b)The following data about the sale and advertisement expenditure of a firm is given below.

	Sales(in Crores of Rupees)	Advertisement Expenditure(in Crores of Rs)
Means	40	6
Standard Deviation	10	1.5

Coefficient of Correlation =r= 0.9

I. Estimate the likely sales for a proposed advertisement expenditure of Rs. 10 Crores.
II. What should be the advertisement expenditure if the firm proposes a sales target of 60 Crores of Rupees?

4. a)i) A box contains 6 red, 4 white and 5 blue balls. From this box 3 balls are drawn in succession. Find the probability that they are drawn in the order red, white and blue if each balls is i) replaced ii) not replaced

OR

b) The contents of urns I, II and III are as follows:
1 white, 2 black and 3 red balls,
2 white, 1 black and 1 red balls, and
4 white, 5 black and 3 red balls
One urn is chosen at random and two balls drawn. They happen to be white and red. What is the probability that they came from urns I, II or III?

5.a) What is Normal Distribution? Explain characteristics and importance of the normal distribution.

OR

b) If 5% of the electric bulbs manufactured by a company are defective, use Poisson distribution to find the probability that in a sample of 100 bulbs (i) none is defective, (ii) 5 bulbs will be defective.(Given e^{-5}=0.007)

6. a) In a sample of 400 parts manufactured by a factory, the number of defective parts was found to be 30. The company, however, claimed that only 5% of their product is defective. Is the claim tenable?

OR

b) Two types fo batteries are tested for their length of life and the following data are obtained:

	No. of Samples	Mean life in Hours	Variance
Type A:	9	600	121
Type B:	8	640	144

Is there a significance difference in the two means? (Table value=2.131)

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7.a) From the following data, use x^2-test and conclude whether inoculation is effective in preventing tuberculosis:

	Attacked	Not attacked	Total
Inoculated	31	469	500
Not inoculated	185	1,315	1,500
Total	216	1,784	2,000

OR

b) In order to make a survey of the buying habits, two markets A and B are chosen at two different parts of a city. 400 women shoppers are chosen at random in market A. Their average weekly expenditure on food is found to be Rs.250 with a standard deviation of Rs.40. The figures are Rs.220 and Rs.55 respectively in the market B where also 400 women shoppers are chosen at random. Test at 1% level of significance whether the average weekly food expenditures of the two populations of shoppers are equal.

The Guidelines to be followed by the question paper setters in QUANTITATIVE TECHNIQUES FOR BUSINESS for the first semester-end exams

PAPER TITLE: QUANTITATIVE TECHNIQUES FOR BUSINESS

PAPER-6 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Quantitative Techniques for Business Decisions	Course: M.Com	Course Code: CO116	Department: Commerce (PG)

1. Dr.B.Jaya Prakash, Associate Professor, Deputy Head, Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 9849813969.	2. Dr.J.Pratap Reddy, Professor, Dept.of Commerce, T.J.P.S.College, Guntur, Mobile: 9440542609.

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A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Business Law	Course: M.Com.	Course Code: CO211	Department: Commerce (PG)
1. . Mrs.B.Kalpana Assistant Professor Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 7842669134		2. Dr. B. Sankhar Babu, Assistant Professor, Department of Commerce, P.B Siddhartha College of Arts & Science Vijayawada Mobile No.: 9346487036	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Financial Management	Course: M.Com	Course Code: CO212	Department:Commerce (PG)
1. Dr. P.D M. Raju Professor, Department of Commerce Prabhas College, Vijayawada. Mobile No. 9440751609		2. . Dr. B. Sankhar Babu, Assistant Professor, Department of Commerce, P.B Siddhartha College of Arts & Science Vijayawada Mobile No.: 9346487036 .	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Human Resources Management	Course: M.Com	Course Code: CO213	Department:Commerce (PG)
1. Mrs. A. Siva Naga Lakshmi, Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. .		2 Mrs.G.Lalitha Madhavi Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No.: 7799209460 .	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Marketing Management	Course: M.Com	Course Code: CO214	Department:Commerce (PG)
1. Mrs.B.Kalpana Assistant Professor Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 7842669134		2. P. Padmanabam Assistant Professor Department of Commerce, SRR & CVR College, Vijayawada.	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Business analytics and Research Methods	Course: M.Com	Course Code: CO215	Department:Commerce (PG)
1. Dr.B.Jaya Prakash, Associate Professor, Deputy Head, Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 9849813969		2 Dr. P.D M. Raju Professor, Department of Commerce Prabhas College, Vijayawada. Mobile No. 9440751609	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: E-commerce	Course: M.Com	Course Code: CO216	Department: Commerce (PG)
1. . Mrs. A. Siva Naga Lakshmi, Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada.		2. M J Rajpaul, Assistant Professor Department of Commerce, SRR & CVR College, Vijayawada. Mobile No. 9502093357 .	

Course structure and scheme of Teaching and Examination
Master of Commerce

I SEMESTER

Paper Code	Paper Title	Teaching Hours/ week		Core / Elective	Internal Marks	External Marks	No. of Credits
		Lecture	Tutorial/ Practical				
CO111	Management theory and practice	5	1	Core	30	70	5
CO112	Business Economics	5	1	Core	30	70	5
CO113	Business Environment	5	1	Core	30	70	5
CO114	Entrepreneurship Development	5	1	Core	30	70	5
CO115	Information Technology for Business	5	1	Core	30	70	5
CO116	Quantitative Techniques for Business decisions	5	1	Core	30	70	5

II SEMESTER

Paper Code	Paper Title	Teaching Hours/ week		Core / Elective	Internal Marks	External Marks	No. of Credits
		Lecture	Tutorial/ Practical				
CO211	Business Law	5	1	Core	30	70	5
COM212	Financial Management	5	1	Core	30	70	5
COM213	Human Resources Management	5	1	Core	30	70	5
COM214	Marketing Management	5	1	Core	30	70	5
COM215	Business analytics and Research Methods	5	1	Core	30	70	5
COM216	E-commerce	5	1	Core	30	70	5
GE02	CBCS Paper -1	3	1	Elective	50	--	3

Business Laws

Subject Code :	**CO201**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

CO-1 To provide knowledge and understanding nature of the company and how to conduct the board meetings , appointment of the directors

CO-2 To know about how to prevent the money laundering in the business

CO-3 To provide expert knowledge on how to protect consumers and also provide the knowledge about to Right to Information Act

CO-4 To provide expert knowledge on Information Technology Act

CO-5 To know about the powers and freedom of corporate and business ethics

Unit –I

Companies Act 2013: Definition and Nature of Company - Incorporation of company – Prospectus - Shares and Debentures - Acceptance of Deposits - Appointment and Qualification of Directors - Meetings of Boards and its powers - Inspection and investigation - Compromises, arrangements and amalgamations - Prevention of oppression and Mismanagement - SEBI Act, 1992

Unit- II

Depositories Act, 1996 – Prevention of Money Laundering Act, 2002.

Unit- III

Consumer Protection Act, 1986 – Competition Act, 2002 – Environment Protection Act – Right to Information Act, 2005

Unit –IV

Foreign Exchange Management Act, 1999- Cyber laws-Information Technology Act, 2000.

Unit – V

Corporate Governance and Business Ethics – Ethical practices and guidelines: Internal to the Organization –Power and freedom: External to the organization.

References

1. Bulchandani RR : Business Law, Himalaya Publishing House.
2. SC Kuchal: Business Law, Vikas publishing House.
3. Agarwal UK : Consumer Protection in India (Deep & Deep)
4. Gulshan SS : Business Law (Excel)
5. Bare Acts

The Guidelines to be followed by the question paper setters in BUSINESS LAW for the second semester-end exams

PAPER TITLE: BUSINESS LAWS

PAPER-I Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

AG&SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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MODEL QUESTION PAPER

M.COM. (REGULAR) DEGREE EXAMINATION

Second Semester

BUSINESS LAWS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer the Following Questions **5×4=20 Marks**

1. a. (i) Compromises.

(OR)

(ii) Debentures.

b. (i) Objectives of Deposition Act,1926

(OR)

(ii) Scope of prevention of money laundering act 2002.

c. (i) complaints

(OR)

(ii) Information exchange.

d. (i) Fintech

(OR)

(ii) Foreign policy

e. (i) Corporate governance.

(OR)

(ii) Code of conduct

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Discuss the prevention of the companies act 1950. Is regard to removal of directors by the Central Government?

(Or)

b) Define a manager and distinguish between a manager, managing director and a whole-time direction.

3. a) What is money laundering? Discuss how money laundering takes place?

(Or)

b) Explain how is a depository similar to a bank?

4. a) Explain the objectives and main provisions of Competition Act 2002.

(Or)

b) Explain the Right to Information Act 2005 in detail.

5. a) discuss the applicability and overall structure of FEMA Act 1999.

(Or)

b) State and explain the digital signatures, digital certificates and R.S.A algorithm

6. a) what do you understand by the term "Corporate Governance" ? Why is it important?

(Or)

b) Explain in detail the ethical practices by business in India.

SECTION C

Answer the following question. **(1 x 10=10 marks)**

7. a) Explain briefly important clauses of Memorandum of Associations of a Company?

(Or)

b) Explain Information Technology Act, 2000.

FINANCIAL MANAGEMENT

Subject Code :	**CO202**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

CO 1 To understand the perspective on financial management function in the company and in its relation to domestic and international economy.

CO 2 To provide illustration on financial management practices and policies, processes, techniques and strategies those are used in the financial management.

CO 3 To develop knowledge on the type and characteristics of problems and the possibility of the occurrence of financial management problems,

CO 4 To develop planning skill and monitoring skill in financial management functions effectively.

CO 5 To apply the appropriate working capital management strategy to face the company challenges.

Unit–I: Introduction: Nature, Scope and Objectives of Financial Management: Finance Function–Profit Goal vs. Wealth Goal Maximization - Financial Manager in Modern business Organizations (Theory)

Unit–II: **Investment decision**: Capital Budgeting process –Methods of appraisal: Traditional Techniques and Discounted Cash Flow Methods – NPV vs. IRR - Capital rationing (Theory & problems)

Unit–III: Financing decisions: Concept of leverage – Types of Leverages –EBIT – EPS Analysis – Capital Structure – Theories of Capital Structure – Net Income approach – Net Operating income approach – Traditional view – MM Hypothesis Cost of Capital**:** Types of Cost of Capital - Weighted average Cost of capital. Capital Structure Determinants.(Theory & problems)

Unit–IV: **Dividend decisions**: Kinds of dividends, Dividend Policy types, Dividend Theories – Walter's Model – Gordon's Model – M-M Hypothesis (Theory & problems)

Unit–V: Working Capital Management: Meaning, Significance, Types of Working capital, Determinants of working capital, and Methods of Measuring working Capital Requirements - Operating cycle -Financing of Working Capital-Management of Cash, Receivables, and Inventory (Theory & problems)

References

1. Chandra Bose D., Fundamentals of Financial Management, 2nd Edition (2006) Prentice Hall of India.
2. Khan M Y and Jain P. K., Basic Financial Management: Text and Problems, 2nd Edition (2005) Tata McGraw Hill.
3. Pandey I M., Financial Management, 11th Edition (2015) Vikas Publishing House Pvt. Ltd.
4. .Pandey & Bhat, Cases in Financial Management, 2nd Edition (2000) Tata McGraw Hill.
5. Prasanna Chandra, Financial Management - Theory and Practice, 10th Edition (2019) Tata McGraw Hill.

The Guidelines to be followed by the question paper setters in FINANCIAL MANAGEMENT for the second semester-end exams

PAPER TITLE: FINANCIAL MANAGEMNT

PAPER-II Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

AG&SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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MODEL QUESTION PAPER

M.COM. (REGULAR) DEGREE EXAMINATION

Second Semester

FINANCIAL MANAGEMENT

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20Marks**

1. **Write short notes on:**

a. (i) Financing function.

(OR)

(ii) NPV method

b. (i) Operating leverage

(OR)

(ii) Cost of equity

c. (i) WACC

(OR)

(ii) Operating cycle

d. (i) Gross VS Net working capital

(OR)

(ii) Kinds of dividends

e. (i) Objectives of Financial Management

(OR)

(ii) Significance of Working Capital Management.

SECTION – B

***Answer All Questions*5×8=40Marks**

2. a) Discuss in detail, the scope of Financial Management.

(OR)

b) Do you support the concept of Profit Maximization or Wealth Maximization? Give Reasons.

3. a) What is Capital Budgeting? Explain briefly about techniques of Capital Budgeting?

(OR)

b) A company is considering and investment proposal to install new machine at a cost of Rs.50, 000/-. The machine will last for 5 years and has no salvage value. The estimated cash flows after taxes are:

Years	1	2	3	4	5
Estimated Cash flows after taxes (Rs.)	10,000	10,450	11,800	12,250	16,750

Compute the following :

a) Pay-Back period b) Average rate of Return c) NPV at 10% d) IRR

4 .a) Explain Net Income and Net Operating Income approach of capital structure theories.

(OR)

b) A firm forecasts that it will produce 15, 00 units and generate EBIT or Rs. 3, 00,000. The DOL for a quantity level of 15,000 units is 2.5. There is a possibility that the actual output could range from 10% below to 5% above the forecast value. Calculate the range of possible forecast errors for EBIT in % terms and also corresponding EBIT values.

5. a) Show the implications of dividend policy according to Gordon's Model for the give information:

Particulars	Growth Firm	Normal Firm	Declining Firm
r	15%	10%	8%

All the firms have k=0.10 and EPS= Rs 10. Show the values when the firms adopt 40% and 60% pay-out ratio.

(OR)

b) What is the substance of Miller and Modigliani 'dividend irrelevance' theorem?

6. a) Explain the concept of working capital and the factors that determine the working capital needs of the firm.

(OR)

b) A cost sheet of a company provides the following data:

Particulars	**Cost per unit Rs**
Raw Material	52
Direct labour	19.5
Overheads	39
Total Costs	**110.5**
Profit	19.5
Selling Price	**130**

The following is the additional information available:

Average raw material in stock: one month;
Average materials in process: half month
Credit allowed by suppliers: one month
Credit allowed to debtors: two month;
Time Lag in payment of wages: one and a half weeks.
Overheads: one month.
One fourth of sales are on cash basis.

Cash balance is expected to be Rs. 1, 20,000. You are required to prepare a statement showing the working capital needed to finance a level of activity of 70,000 units of output. Assume that production is carried on evenly throughout the year and wages and overheads accrue similarly.

SECTION C

Answer the following question. **(1 x 10=10 marks)**

7. a) A company is considering an investment proposal to install new machine at a cost of Rs.50, 000. The machine will last for 5 years and has no salvage value. The estimated cash flows after taxes are:

Year	Estimated Cash flows after taxes
1	Rs. 10,000
2	Rs.10,450
3	Rs. 11,800
4	Rs. 12,250
5	Rs. 16,750

Compute the following:

a) Payback period
b) Average rate of return
c) Internal rate of return
d) Net present value at 10%

(OR)

b)Explain about various dividend theories.

HUMAN RESOURCE MANAGEMENT

Subject Code :	**CO203**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 To cover the basic concepts of Human Resource management.
- CO-2 To contribute the development of human resource planning, implementation, and evaluation of employee recruitment, selection, and retention plans and processes)
- CO-3 To develop, implement, and evaluate employee orientation, training, and development programs
- CO-4 To administer and contribute to the design and evaluation of the performance management program
- CO-5 To develop the students' ability to learn concepts like compensation, employee welfare, and industrial relation issues

Unit- I: Human Resource Management: Nature and significance, functions of HRM, Qualities and Role of HR Manager, HRM Model, HRM in a changing Environment.

Unit-II: Human Resource Planning: Objectives, process, factors affecting HR Planning, Requisites for successful HR Planning, Recruitment – Factors influencing, Sources of Recruitment – E- Recruitment-Selection Process – Placement, induction and Socialization – Promotion and Transfers

Unit-III: Employee Training: Significance – Identification of Training Needs – Employee Training Methods – Executive Development Methods – Evaluation of Training and Development Programs – Methods of Evaluation -Limitations to its effectiveness

Unit-IV: Performance Appraisal: Scope & Significance – Methods of Appraisal – Limitations of Appraisal - Career Planning and Development – Counseling- Mentoring-Coaching

Unit – V:Wage and Salary Administration: Wage Structure and Policy – Wage Differentials – Wage Payment Methods – Incentives – Fringe Benefits –Industrial Relations: Causes of Disputes and Settlement - Role of State in Industrial Relations - Collective Bargaining -Employee Participation in Management - Quality of Work Life.

References:

1. Aswathappa. Human Resource Management 6thEdition (2010). Tata McGraw Hill, New Delhi.
2. Biswanath Ghosh. Human Resource Development and Management, (2005) Jain Book Depot , New Delhi
3. C. B. Mamoria. Personnel management 21stEditiion (2012). Himalaya Publishing House , New Delhi:
4. Edwin Flippo. Personnel management 5thEdition (1994). Tata McGraw Hill, New Delhi.
5. Rajashree Shinde, A. Abhilasha, A. Ramakumar Human Resource Management 1st Edition (2017). Himalaya Publishing House, New Delhi.
6. Sahni Personnel Management 5th Edition (2005). Kalyani Publisher, New Delhi.
7. SubbaRao. Human Resources management 12thEdition (2011). Himalaya Publishing House, New Delhi.
8. V. S. P. Rao, Human Resources Management, 3rd Edition (2010). Excel Books, New Delhi.

The Guidelines to be followed by the question paper setters in HUMAN RESOURCE MANAGEMNT for the second semester-end exams

PAPER TITLE: HUMAN RESOURCE MANAGEMNT

PAPER-III Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

AG&SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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MODEL QUESTION PAPER

M.COM. (REGULAR) DEGREE EXAMINATION

Second Semester

HUMAN RESOURCE MANAGEMENT

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20 Marks**

1. Write Short Notes on:

a. (i) Role of HRM

(OR)

(ii) Human Resource planning.

b. (i) Vestibule Training.

(OR)

(ii) Career planning.

c. (i) Quality of Work Life.

(OR)

(ii) Fringe benefits.

d. (i) E-Recruitment

(OR)

(ii) HRM Model.

e. (i) Sources of Recruitment.

(OR)

(ii) Wage Payment Methods.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Define Human Resource Management and discuss the objectives and functions of HRM.

(Or)

b) Explain the role of HRM in the changing environment.

3. a) What is human resource planning? Analyze various steps in the process of human resource Planning.

(Or)

b) Explain the Sources Recruitment with relevant merits and limitations

4. a) Identify the employee training methods.

(Or)

b) Show the Importance of training and Distinguish between employee training and executive development.

5. a) Discuss the methods of performance appraisal.

(Or)

b) Examine the Significance and limitations of Performance appraisal.

6.a) Define the concept wage and salary administration. Explain the wage payment methods.

(Or)

b) Evaluate the Methods of Employee participation in management.

SECTION C

Answer the following question. **(1 x 10=10marks)**

7. a) what is meant by the term Industrial Disputes? Discuss its causes and settlement mechanism.

(Or)

b) Define HRM. Explain the nature, scope& significance of HRM.

MARKETING MANAGEMENT

Subject Code :	**CO204**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 Understand the concepts of marketing and to know the changing context of marketing environment.
- CO-2 Appreciating the knowledge of consumer behaviour in implementing the marketing strategies to satisfy target customer and also distinguish between Marketing Information System and Market Research.
- CO-3 Conceptual understanding of product management and issues relating with marketing of services.
- CO-4 Understand different price strategies and the dynamics of channel management.
- CO-5 Be able to know the elements of promotion mix and the importance of integrated marketing communications.

Unit-I: Marketing-Concepts-Approaches to the Study of Marketing – Functions of Marketing-Marketing Environment.

Unit-II: Consumer Behavior – Factors affecting Consumer Behavior- Market Segmentation – Market Targeting and Positioning – Marketing Information System and Marketing Research.

Unit-III: Marketing Mix: Product Planning – New Product Development – Product Life Cycle– Branding &Packaging – Product line- Product Mix Management- Product Vs Service.

Unit-IV: Pricing and Distribution: Pricing Objectives – Methods and Strategies ; Channels of distribution – Channel Selection and Management -Retail Management.

Unit-V: Promotion: Promotion Mix-Personal Selling-Advertising - Sales Promotion, Publicity and Public Relations – Direct Marketing; Promotional strategies- Web Marketing – Integrated Marketing Communications.

References

1. Aparna Tembulkar, Marketing Management, 2nd Edition. (2014) Nirali Prakashan, Pune.
2. Kazmi S H, marketing Management: Text and Cases, 1st Edition, (2007), Excel Books, New Delhi.
.
3. Philip Kotler, Kevin Lane Keller, Marketing Management –Global Edition, 15th Edition. (2016) Pearson India Education Services Pvt Ltd.
4. Rajan Suxsena, Marketing Management, 5th Edition.(2017) McGraw Hill Education (India) Private Limited.
5. Ramaswamy, Namakumari, Marketing Management: planning, Implementation & Control, 6th Edition, (2018), Sage Publisher, New Delhi.
6. Sherlekar S.A, Marketing Management, 13th Edition, (2008), Himalaya Publishing House, Mumbai.

The Guidelines to be followed by the question paper setters in

MARKETING MANAGEMENT for the second semester-end exams

PAPER TITLE: MARKETING MANAGEMNT

PAPER-IV Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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MODEL QUESTION PAPER
M.COM. (REGULAR) DEGREE EXAMINATION
Second Semester
MARKETING MANAGEMENT-CO204
(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20 Marks**

1. Write short notes on:

(a) (i) Product vs Service.

(OR)

(ii) Targeting

(b) (i) Marketing Information System

(OR)

(ii) Channel Conflict

(c) (i) Integrated Marketing Communication

(OR)

(ii) Psychological Pricing

(d) (i) Global Marketing

(OR)

(ii) Positioning.

(e) (i) Functions of Marketing.

(OR)

(ii) Pricing Objectives.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Differentiate between sales and marketing. What are the core concepts of marketing?

(Or)

b) What are the elements of marketing environment? Explain their influence on marketing.

3. a) Define Marketing Research. Explain various steps involved in Marketing Research.

(Or)

b) Define Market Segmentation. What are the types of Market Segmentation? Explain them briefly.

4. a) What is meant by Product Life Cycle? Explain the stages of Product Life Cycle with Suitable illustration.

(Or)

b) Define Brand. What are the various Brand strategies?

5. a) Explain the objectives of Pricing. What are the various price adjustment strategies?

(Or)

b) What factors are to be considered in the selection of Channel Members? Explain the Channel selection criteria.

6. a) Describe the role of 'Web Marketing' in present day business context.

(Or)

b) Define 'Sales Promotion'. What are the sales promotion techniques followed by marketing companies? Explain with suitable examples.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. a) Define 'Consumer Behaviour' .Explain various factors influencing Consumer Behaviour.

(Or)

b) Define 'Advertising'. Explain its role in promotion of fast moving consumer goods.

BUSINESS ANALYTICS AND RESEARCH METHODS

Subject Code :	**CO205**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 To understand basic concepts of research and formulate research problems and process.
- CO-2 To generate an awareness of research design and data collection methods.
- CO-3 To develop and understand of sampling design and techniques.
- CO-4 To understand how to analyse and interpretation of the data.
- CO-5 To provide expert knowledge about to write a research report and thesis.

Unit –I : Introduction-Importance of Research, Types of research , Research Process-Problem Identification- Formulation-Classification, Concept and Construction of Hypothesis – Steps in Testing Hypothesis.

Unit-II: Research Design-Meaning, purpose and Principles – Types of Research Design – Exploratory- Descriptive- Experimental, Data Collection-Sources of Data-Methods of Data Collection-Questionnaire Design and Pre Testing of Questionnaire.

Unit-III: Sampling & Sampling Designs-Determination of Sample Size-Census Survey Vs Sample Survey –Advantages of Sampling-Sampling Methods-Probability Sampling-Non Probability Sampling.

Unit-IV: Data Tabulation-Analysis and Interpretation: Tabulation of data and general rules of tabulation Graphic and Diagrammatic Representation of Data-ANOVA-One way and Two way classification.

Unit-V: Research Report Writing and Presentation: Concept, Purpose, Guidelines for Research Report Writing –Steps in Report Writing-Layout of Report-Types of Research Reports-Presentation of Research Report.

Reference Books:

1. Panneer Selvam- Research Methodology, 2nd Edition (2014) PHI
2. Bhattacharya D.K., "Research Methodology" New Delhi. 2nd Edition (2006) Excel Books
3. Cooper, "Business Research Methods", , New Delhi. 11th Edition (2012) Tata McGraw Hill

The Guidelines to be followed by the question paper setters in BUSINESS ANALYTICS AND RESEARCH METHODS for the second semester-end exams

PAPER TITLE: BUSINESS ANALYTICS AND RESEARCH METHODS

PAPER-V Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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MODEL QUESTION PAPER
M.COM. (REGULAR) DEGREE EXAMINATION
Second Semester
BUSINESS RESEARCH METHODS
(2017-2018 Regulation Onwards)

Time: Three hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **(5X4 = 20 Marks)**

1. **Write short notes on:**

a) (i) Importance of Research

(OR)

(ii) Simple Random Sampling

b) (i) Research Problem

(OR)

(ii) Primary Vs Secondary data

c) (i) Procedure for Testing of Hypothesis

(OR)

(ii) Bar and Pie charts

d) (i) Layout of report

(OR)

(ii) Types of Tabulation

e) (i) ANOVA

(OR)

(ii) Research Design.

SECTION- B

Answer All Questions. **(5X8 = 40 Marks)**

2. a) What is Research? Explain the research process in details.

(OR)

b) Explain different types of research.

3. a) What is Research Design ? Distinguish between diagnostic and Exploratory Research designs.

(OR)

b) Briefly explain various techniques of data collection in business research.

4. a) Explain Principal steps in a Sample Survey?

(OR)

b) Distinguish between Systematic and Stratified Sampling.

5. a) What are different parts of statistical table? Give an example to illustrate.

(OR)

b) Explain the procedure for analysis of variance (ANOVA) two-way classification.

6. a) Explain various types of research reports used in business research?

(OR)

b) Explain the significance of research report and narrate the various steps involved in writing such a report.

SECTION- C

Answer the following question. **(1 x 10=10 marks)**

7. a) Set up an analysis of variance table for the following per acre production data for three varieties of wheat, each grown on 4 plots and state if the variety differences are significant.

Plot of Land	Per acre production data		
	Variety of Wheat		
	A	B	C
1	6	5	5
2	7	5	4
3	3	3	3
4	8	7	4

(OR)

b) Explain the criteria of Good Research and also explain problems encountered by researchers in India.

E-COMMERCE

Subject Code :	**CO206**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 To remember and understand the basic concepts of E-commerce, E-business Internet and World Wide Web.
- CO-2 To understand how different technologies are implemented in e-commerce.
- CO-3 To analyse the role of e-marketing and advertisements in e- commerce.
- CO-4 To analyse the impact of CRM and SCM on e-commerce.
- CO-5 To learn about different types of electronic payment system, protocols, security schemes and cash less economy.

Unit-I : History of E-commerce and Indian Business Context: origin of E-commerce – Traditional vs. E-Commerce - Internet and World Wide Web- Business Models for e-Commerce-B2C, B2B, C2C & C2B, Merits and Limitations- Advantages and Disadvantages of E-commerce - Introduction to E-business -E-commerce vs E-business

Unit-II: Technologies of the World Wide Web- Internet client-server application-Telnet, PTP, IRC, Chat, ICQ & MIME, Networks & Internet :communication switching -Network routers-URL-IPv6-TCP web site-Website goals & Objectives Strategies for website Development-ISP Broadband Technologies- Hypertext- JavaScript and XML

Unit-III: E-Marketing- Traditional Marketing, Online Marketing- Advantages of online Marketing - Advertisements in E-commerce- various means of advertising- advertisement strategies-Intelligent Agents.

Unit-IV: **CRM**-Traditional methods-Technology support-E-CRM-Customer Life Cycle- CRM Capabilities and Customer Life Cycle-Data Mining in CRM - e-Supply Chain- Old ways of Managing supply and information flow-new ways of managing supply chain- several ways to reduce inventory- Real time benefits of e-Supply Chain- objectives of SCM -E-supply chain Components and architecture-Major trends in E-SCM

Unit-V: **E-Commerce Payment Systems**-Electronic Payments with Protocols-Security schemes-Electronic Fund Transfer and Debit Cards-E-Cash, Properties of E-Cash-E-Cash in Action- Operational Risk and E-Cash-Legal issues- E- Cheque - Risk and E-Payments Systems-Cashless Economy

References

1. PT Joseph SJ E-Commerce, An Indian Perspective, 3rd Edition, Volume 2, (2010), Prentice Hall of India
2. Effraim Turban, Joe Lee, David Kind-H Michael Chung E-Commerce, A Management Perspective, 6th Edition (2009), Pearson Education Asia.
3. Pandey US & ShuklaEr. S., E-Commerce & M- Commerce Technology, Revised Edition (2018), S. Chand& Company New Delhi.
4. Gary P. Schneider, E-Commerce Strategy Technology & Implementation, 9th Edition (2012), Cengage Learning, New Delhi.
5. Trepper, E-Commerce Strategies, Prentice Hall of India (2006) revised Edition, New Delhi.
6. Jonathan Reynolds, E-Business A Management Perspective 2nd Edition (2009), Oxford University Press.

The Guidelines to be followed by the question paper setters in E-COMMERCE for the second semester-end exams

PAPER TITLE: E-COMMERCE

PAPER-VI Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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MODEL QUESTION PAPER
M.COM. (REGULAR) DEGREE EXAMINATION
Second Semester
E-COMMERCE
(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20 Marks**

1. Write short notes on:

a) (i) B2C

(OR)

(ii) World Wide Web

b) (i) Software Agent

(OR)

(ii) XML

c) (i) Intelligent Agents

(OR)

(ii) Supply Chain Management

d) (i) Electronic Fund Transfer

(OR)

(ii) Online Marketing

e) (i) E-Cash

(OR)

(ii) Website Goals

SECTION – B

Answer All Questions **5×8=40Marks**

2. (a)Explain Business models of E-commerce.

(Or)

(b) What are the advantages and Disadvantages of E-commerce? s

3. (a)Explain Internet Client-Server Applications.

(Or)

(b) Explain Website goals, Objectives and Strategies.

4. (a)What is e-marketing? Distinguish E-marketing and Traditional Marketing

(Or)

(b) What are the strategies and advantages of advertisements in e-commerce?

5. (a) Explain Old ways of managing supply and information flow-new way of Managing supply chain and Supply chain Architecture.

(Or)

(b) Explain CRM Technology, CRM toolkit and CRM customer life cycle.

6. (a)Explain various security schemes in Electronic Payment System.

(Or)

(b) Explain Different protocols used in Electronic Payment system.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. (a) Explain the concept of ISP Broadband Technologies.

(Or)

(b) Explain the Role of E-commerce in India.

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HUMAN VALUES AND ETHICS (1L + 1T + 1P)

Subject Code :	GE02	I A Marks	50
No. of Lecture Hours / Week	03	End Exam Marks	-
Total Number of Lecture Hours	45	Total Marks	50
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

CO 1 To provide the basic understanding about importance of Value Education, Self-Exploration, and Human aspirations.
CO 2 To understand the importance of Process for Value Education
CO 3 To gain knowledge on Understanding Harmony in the Human Being
CO 4 To understand the concept of Harmony in Myself
CO 5 Understanding Harmony in the Family and Society – harmony in Human - Human Relationship

Unit – I: Introduction –Need, Basic Guidelines and Content

1. Understanding the need , basic guidelines, content and process for value Education
2. Self-Exploration – What is it? – its content and process: 'Natural Acceptance' and Experiential Validation – as the mechanism for self-explanation
3. Continuous Happiness and Prosperity – A look at basic Human Aspirations

Unit – II: Process for Value Education

1. Right Understanding, Relationship and Physical Facilities – basic requirements for fulfillment of aspirations of every human being with their correct priority
2. Understanding Happiness and prosperity correctly – A critical appraisal of the current Scenario 17
3. Method to fulfill the above human aspirations; understanding and living in harmony at various levels

Unit – III: Understanding Harmony in the Human Being

1. Understanding human being as a co-existence of the sentient 'I' and the material 'Body'
2. Understanding the needs of Self ('I') and 'Body'
3. Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)

Unit –IV: Harmony in Myself

1. Understanding the characteristics and activities of 'I' and harmony in 'I'
2. Understanding the harmony of I with the Body - correct appraisal of Physical needs, meaning of Prosperity in detail
3. Programs to ensure Sanyam and Swasthya – practice exercises and Case Studies will be taken up in Practice Sessions.

Unit – V: Understanding Harmony in the Family and Society – harmony in Human - Human Relationship

1. Understanding harmony in the family – the basic unit of human interaction
2. Understanding values in human relationship; meaning of Nyaya and Program for its fulfillment to ensure Ubhay-tripti
3. Trust (Vishwas) and Respect (Samman) as the foundational values of relationship.

Text Books

R R Gaur, R,Sangal, G.P Bagaria, 2009, A Foundation Course in value Education(English)
Pradeep Kumar Ramancharla, 2013, A foundation course in value education (Telugu)
R R Gaur, R Sangal G P Bagaria, 2009, Teacher's Manual (English)
Pradeep Kumar Ramancharla, 2013, Teacher's Manual (Telugu)

Reference Books

1. Ivan IIIich, 1974, Energy& Equity, The Trinity Press, Worcester, and harper Collins, USA
2. E.F. Schumacher, 1973, small is Beautiful; a study of economics as if people mattered, Blond & Briggs, Bratain
3. A Nagraj, 1998, Jeevanvidya to Na Prayanam, Hyderabad
4. R.Pradeep Kumar, 2013, JeevanVidya to Na Prayanam, Hyderabad
5. Sussan George, 1076, How the other half Dies, Penguin Press, Peprinted 1986, 1991
6. PL Dhar, RR Gaur, 1990, Science and Humanism, common wealth publishers
18
7. A.N. Tripathy, 2003, Human values, New Age International Publishers
8. SubhasPalekar, 2000, How to practice natural Farming, Pracheen (Vaidik) Krishitantrashodh, Amravati
9. Donella H. Meadows, Dennis L. Meadows,Jorgen Randers, William W. Behrens III,1972, Limits to Growth – club of Rome's report, universe Books
10. E.G. Seebauer& Robert, L BERRY, 2000, Foundationals of Ethics for Scientists & Engineers, Oxford University Press
11. M. Govindrajran, S Natrajan& V.S. Senthi Kumar, Engineering Ethics (including human Values), Eastern Economy Edition, Prentice hall of India Ltd
12. B P Banerjee, 2005, Foundations of Ethics and Management, Excel books
13. B.L. Bajpai, 2004, Indian Ethos and Modern Management , New Royal book Co; Lucknow, Reprinted 2008

Relevant CDs, Movies, Documentaries & Other Literature

1. Value Education Website, http://www.uptu.ac.in
2. Story of Stuff, http://www.storyofstuff.com
3. .AlGore, An Inconvenient Truth, paramount Classics, USA
4. Charlie Chaplin, Modern Times, United Artists, USA

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165

(An Autonomous College in the Jurisdiction of Krishna University)Accredited at the level 'A' by the **NAAC**

Sponsors: Siddhartha Academy of General& Technical Education

DEPARTMENT OF COMPUTER SCIENCE

Minutes of the meeting of Board of Studies in Computer Science for PG (M.Sc.)

Date: 25-11-2020

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE::VUYYURU

(An Autonomous College in the Jurisdiction of Krishna University)
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DEPARTMENT OF COMPUTER SCIENCE (PG)

Minutes of the meeting of Board of Studies in Computer Science for M.Sc. (Computer Science) programme held on 25th November 2020 at 11:00A.M. for the Department of Computer Science.

Members Present		
Name of the Member	**Role**	**Signature**
Smt. T.Keerthi, I/C HOD, Dept. of Computer Science, A.G & S.G Siddhartha Degree College of Arts & Science, Vuyyuru-521165. Mobile: 9959558485 E-Mail: keerthitatineni16@gmail.com	Chairman	
Dr. K.Madhavi, Associate Professor, Dept of Computer Science, JNTUA. College of Engineering,Anantapur. Mobile: 9440206501 E-Mail:kasamadhavi@yahoo.com	University Nominee, Krishna University	
Dr.R.Satya Prasad, Professor, Department of Computer Science, Acharya Nagarjuna University, Nagarjuna Nagar-522508. Mobile: 9848487478 E-Mail: profrsp@gmail.com	Subject Expert	
Dr.T.S.Ravi Kiran, H.O.D& Assistant Professor, Dept of Computer Science, P.B. Siddhartha Degree College of Arts & Science-Vijayawada -520002. Mobile: 9441176980 E-Mail: kirantsr1 @gmail.com	Special Invitee	
Sri.U.Sairam,C.E.O, Codegnan I.T Solutions OPC PVT LTD., Vijayawada520002 Mobile:9959555952 E-Mail: uppugundlasairam@gmail.com	Industrialist	
Ms. P.Srujana, Software Developer, TonmetriInfoSolutions,Vijayawada. Mobile: 9032671688 E-Mail:srujanapaladugu26@gmail.com	Alumni Representative	
Smt. V. Munni, Assistant Professor, A.G & S.G Siddhartha Degree College of Arts & Science. Mobile: 8099205522 E-Mail:munni.j2ee@gmail.com	Member	
Sri.B.MadhuSudhana Rao, Assistant Professor, A.G & S.G Siddhartha Degree College of Arts & Science. Mobile:7842664766 E-Mail:ms.madhu27@gmail.com	Member	

PG

AGENDA

- To discuss and approve the *Structure, Syllabi and Model Question Papers* of *First* Semester of M.Sc.(Computer Science) for the batch of students admitted from the academic year 2020-21 and onwards.

- To discuss and approve the *Structure, Syllabi and Model Question Papers* of *Second* Semester of M.Sc.(Computer Science) for the batch of students admitted from the academic year 2020-21 and onwards.

RESOLUTIONS

- Resolved and recommended to adopt the Krishna University PG Regulation (R20) for the syllabus, model papers in the First Semester for the following courses:
  - Data Structures (20MCS101)
  - Programming & Problem Solving using Python (20MCS102)
  - Computer Organization (20MCS103)
  - Formal Language & Automata Theory (20MCS104)
  - Python Lab (20MCS105)
  - DS Lab (20MCS106)

- It is resolved and recommended to introduce new course "Technical report writing (TRW101) in the First Semester in addition to above courses

- Resolved and recommended to continue the same syllabus, model papers without changes in the Second Semester for the following courses:
  - Database Management Systems (20MCS201)
  - Software Engineering (20MCS202)
  - Operating System (20MCS203)

- Resolved and recommended to introduce new syllabus, model papers in the Second Semester for the following courses:
  - Computer networks (20MCS204)
  - Database Management system Lab (20MCS206L)
  - OEL programming of problem solving using python Program (20MCS205)

20MCS101: DATA STRUCTURES

Details of the syllabus

Unit 1	**Introduction and Overview** : Elementary Data Organization, Data Structures, Data Structure Operations, Algorithms: Complexity, Time-Space Tradeoff. **Preliminaries** : Mathematical Notations and Functions, Algorithmic Notation, Control Structures, Complexity of Algorithms. Other Asymptotic Notations, Sub algorithms, Variables, Data Types
Unit 2	**String Processing :** Storing Strings, Character Data Type, String Operations, Word Processing, Pattern Matching Algorithms. **Arrays, Records and Pointers :** Linear Arrays, Representation and Traversing Linear Arrays, Inserting and Deleting, Bubble Sort, Linear Search, Binary Search, Multidimensional Arrays, Pointer Arrays, Record Structures, Representation of records in memory, Parallel Arrays, Matrices, Sparse Matrices.
Unit 3	**Linked Lists :** Representation, Traversing, Searching, Memory Allocation: Garbage Collection, Insertion, Deletion, Header Linked Lists Two-Way Lists. **Stacks, Queues, Recursion :** Stacks, Array representation, Linked List representation, Evaluation of Arithmetic Expressions, Quick sort, Recursion, Towers of Hanoi, Queues, Linked representation of Queues, Deques, Priority Queues.
Unit 4	**Trees** : Binary trees, Representing and traversing binary trees, Traversal algorithms using stacks, Header nodes, Binary Search Trees, Searching, Insertion and Deletion in Binary Search Trees, AVL Search Trees, Insertion and Deletion in AVL trees, m-way search trees, searching, insertion and deletion in m-way search tree, Heap: Heap Sort, Huffman's Algorithms, General Trees
Unit 5	**Graphs**: Terminology, Sequential representation of Graphs, Warshall's Algorithm, Linked representation of Graphs, Operations on Graphs, Traversing a Graph, Topological Sorting. **Sorting and Searching** : Insertion Sort, Selection sort, Merging, Merge sort, Radix sort, Searching and Data modification, Hashing.

Text books

	Author	Title	Publisher
1	Seymour Lipschutz	Data Structures	McGraw Hill (Schaum's Outlines)

Reference books

	Author	Title	Publisher
1	Seymour Lipschutz	Theory and Problems of Data Structures	McGraw Hill (Schaum's Outlines)
2	John R Hubbard, Second Edition	Data Structures with Java	McGraw Hill (Schaum's Outlines)
3	Robert Lafore	Data Structures & Algorithms in Java	Second edition, Pearson Education

20MCS102: PROGRAMMING AND PROBLEM SOLVING USING PYTHON

Details of the syllabus

Unit 1	**Basics of Python Programming**-Features of Python, History of Python, The Future of Python, Writing and Executing First Python Program, Literal Constants, Variables and Identifiers, Data Types, Input Operation, Comments, Reserved Words, Indentation, Operators and Expressions, Expressions in Python, Operations on Strings, Other Data Types, Type Conversion.
Unit 2	**Decision Control Statements**-Conditional Branching Statements, Basic Loop Structures, Nested Loops, The break statement, The continue statement, The pass statement. The else statement used with loops. **Functions and Modules**- Function Definition, Function Call, Variable Scope and Lifetime, The return statement, More on Defining Functions, Recursive functions, Modules, Packages in Python, Standard Library Modules.
Unit 3	**Python Strings Revisited**-Concatenating, Appending and Multiplying Strings, String formatting operator, Built in String Methods and Functions, Comparing Strings, Regular Expressions. **Data Structures**- Sequence, Lists, Functional Programming, Tuple, Sets, Dictionaries.
Unit 4	**Classes and Objects**- Classes and Objects, Class Method and self Argument, Class variables and Object Variables, Public and Private Data Members, Private Methods, Calling a Class Method from Another Class Method, Built-in Class Attributes, Class Methods, Static Methods.
Unit 5	**Inheritance**- Inheriting Classes in Python, Types of Inheritance, Abstract Classes and Interfaces. **Error and Exception Handling**- Introduction to Errors and Exceptions, Handling Exceptions, Raising Exceptions, Built- in and User defined Exceptions **Operator Overloading**- Concept of Operator Overloading, Advantage of Operator Overloading, Implementing Operator Overloading.

Text books

	Author	Title	Publisher
1	Reema Thareja	Python Programming Using Problem Solving Approach	Oxford University Press

Reference books

	Author	Title	Publisher
1	Wesley Chun	Core Python Programming	Prentice Hall

20MCS103: COMPUTER ORGANIZATION

Details of the syllabus

Unit 1	**Digital Logic Circuits**: Digital Computers, Logic Gates, Boolean algebra, Map Simplification, Combinational Circuits, Flip-flops, Sequential Circuits. **Digital Components**: Integrated Circuits, Decoders, Multiplexers, Registers, Shift Registers, Binary Counters, Memory Unit. **Data Representation**: Data types, Complements, Fixed-point Representation, Floating-point representation, other binary codes, Error detection Codes.
Unit 2	**Register Transfer and Micro operations**: Register transfer language, Register transfer, Bus & memory Transfers, Arithmetic micro operations, logic micro operations, Shift micro operations, Arithmetic Logic Shift Unit **Basic Computer Organization and Design**: Instruction Codes, Computer registers, Computer Instructions, Timing and Control, Instruction Cycle, Memory-Reference Instructions, Input-output Interrupt.
Unit 3	**Micro programmed Control:** Control memory, Address Sequencing, Micro program Example, Design of control Unit. **Central Processing Unit**: General Register Organization, Stack Organization, Instruction Formats, Addressing Modes, Data Transfer and Manipulation, Program Control.
Unit 4	**Pipeline and Vector Processing:** Parallel Processing, Pipelining, Arithmetic Pipeline, Instruction Pipeline, RISC Pipeline, Vector Processing, Array Processors. **Computer Arithmetic**: Introduction, Addition and subtraction, Multiplication Algorithm, Floating point arithmetic operations, Decimal Arithmetic unit, Decimal Arithmetic operations.
Unit 5	**Input-Output Organization**: Peripheral Devices, Input-Output Interface, Asynchronous Data Transfer, Modes of Transfer, Priority Interrupt, Direct Memory Access (DMA). **Memory Organization**: Memory Hierarchy, Main Memory, Auxiliary Memory, Associative Memory, Cache Memory, Virtual Memory.

Text books

	Author	Title	Publisher
1	M. Morris Mano	Computer System Architecture	3rd Edition, Pearson Education (2008).

Reference books

	Author	Title	Publisher
1	V. Rajaraman, T. Radha Krishnan	Computer Organization and Architecture	PHI
2	Behrooz Parhami	Computer Architecture	Oxford (2007)
3	ISRD group	Computer Organization	Ace series, TMH (2007)
4	William Stallings	Computer Organization and Architecture – Designing for Performance	Pearson Education (2005)
5	P.Chakraborty	Computer Architecture and Organization	Jaico Books (2008)

20MCS104: FORMAL LANGUAGES AND AUTOMATA THEORY

Details of the syllabus

Unit 1	**Fundamentals:** Strings, Alphabet, Language, Operations, finite automaton model, acceptance of strings, and languages, FA, transition diagrams and Language recognizers. **Finite Automata:** Deterministic finite automaton, Non deterministic finite automaton and NFA with ε transitions - Significance, acceptance of languages, equivalence between NFA with and without ε transitions, NFA to DFA conversion, minimization of FSM, equivalence between two FSMs, Finite Automata with output- Moore and Mealy machines.
Unit 2	**Regular Languages:** Regular sets, regular expressions, identity rules, construction of finite automata for a given regular expressions and its inter conversion, Pumping lemma of regular sets, closure properties of regular sets (proofs not required).
Unit 3	**Grammar Formalism:** Regular grammars-right linear and left linear grammars, equivalence between regular linear grammar and FA, inter conversion, Context free grammar, derivation trees, sentential forms, right most and leftmost derivation of strings. **Context Free Grammars:** Ambiguity in context free grammars. Minimization of Context Free Grammars. Chomsky normal form, Greibach normal form, Pumping Lemma for Context Free Languages. Enumeration properties of CFL (proofs not required).
Unit 4	**Push down Automata:** Definition, model, design of PDA, acceptance by final state and acceptance by empty stack, equivalence of CFL and PDA, interconversion (proofs not required), Introduction to DCFL and DPDA.
Unit 5	**Turing Machine:** Definition, model, design of TM, recursively enumerable languages and recursive languages, types of Turing machines (proofs not required). **Computability Theory:** Chomsky hierarchy of languages, decidability of problems, undecidability of Posts Correspondence problem, Definition of P and NP problems.

Text books

	Author	Title	Publisher
1	Hopcroft H.E. and Ullman	Introduction to Automata Theory Languages and Computation	J. D. Pearson Education

Reference books

	Author	Title	Publisher
1	John C Martin	Introduction to languages and the Theory of Computation	TMH
2	Lewis H.P. & Papadimitriou C.H	Elements of Theory of Computation	Pearson PHI
3	Mishra and Chandrashekaran	Theory of Computer Science and Automata languages and computation	2nd edition, PHI.
4	Daniel I.A. Cohen	Introduction to Computer Theory	John Wiley

KRISHNA UNIVERSITY, MACHILIPATNAM – 521003
DEPARTMENT OF COMPUTER SCIENCE
MCS, I SEMESTER
20MCS105: PROGRAMMING AND PROBLEM SOLVING USING PYTHON LAB

List of Programs

1. Write Python Program to reverse a number and also find the Sum of digits in the reversed number.
   Prompt the user for input.
2. Write Pythonic code to check if a given year is a leap year or not.
3. Write Pythonic code to check if a given year is a leap year or not.
4. Write Python code to determine whether the given string is a Palindrome or not using slicing.
5. Write Python program to add two matrices and also find the transpose of the resultant matrix.
6. Write Python program to swap two numbers without using Intermediate/Temporary variables.
   Prompt the user for input.
7. Consider a Rectangle Class and Create Two Rectangle Objects. Write Python program to
   Check Whether the Area of the First Rectangle is Greater than Second by Overloading >
   Operator.
8. Write Python program to count the number of times an item appears in the list.
9. Write Python program to convert uppercase letters to lowercase and vice versa.
10. Write Python program to perform a linear search for a given Key number in the list and report
    Success or Failure.
11. Write Python program to sort numbers in a list in ascending order using Bubble Sort by
    passing the list as an argument to the function call.
12. Write Python program to Calculate Area and Perimeter of different shapes using Polymorphism.

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20MCS106 : DATA STRUCTURES LAB

List of Programs

1. Java program to implement Stack operations using Arrays
2. Java program to implement Queue operations using Arrays
3. Java program to implement linked list operations using Arrays
4. Java Program to implement tree traversal techniques
5. Java program to convert infix expression to postfix expression
6. Java program to evaluate postfix expression
7. Java program to implement Binary search.
8. Java program to implement Selection sort
9. Java program to implement Insertion sort
10. Java program to implement quick sort
11. Java program to implement Merge Sort.

MCS201: DESIGN AND ANALYSIS OF ALGORITHMS

Details of the syllabus

it 1	**Introduction to Algorithm** : Algorithm definition, properties, Different areas to study about Algorithms, Pseudo code expressions for an algorithm, Performance Analysis, Time Complexity & Space Complexity, Asymptotic notations **Elementary Data Structures:** Stacks and Queues, Trees: Terminology - Binary Trees, Dictionaries : Binary Search Trees, Heaps,Heapsort, Sets and disjoint set Union: Introduction - union and find operations. ; Graphs: Introduction - Definitions - Graph Representations.
it 2	**Introduction to Divide and Conquer** : Binary search, Binary search analysis, Quick sort, Quick sort analysis, Merge sort, Merge sort Analysis, Strassen's matrix multiplication, Finding Maximum and minimum. **Greedy Method** : Introduction, General method, Job sequencing with deadlines, single source shortest path problem, Optimal storage on tapes, Knapsack problem, Minimum cost spanning trees : Prim's Algorithm, Kruskal's Algorithm.
it 3	**Dynamic Programming** : Single source shortest path problem, Multi stage graphs, All pairs shortest path, Optimal Binary search tree, 0/1 Knapsack problem, Reliability design, Travelling person Problem, Flow shop scheduling. **Basic Traversal and Search Techniques:** Techniques for Binary Trees, Techniques for graphs: Breadth First Search and Traversal-Depth First Search; Connected Components and Spanning Trees -Bi-connected components and DFS
it 4	**Introduction to Backtracking :** General method, N-queens problem, sum of sub sets problem, Graph coloring, Hamiltonian cycles, Knapsack problem. **Branch and Bound :** The Method: Least Cost search -The 15 puzzle - control abstractions for LC search - Bounding - FIFO Branch and Bound - LC Branch and Bound; 0/1 knapsack problem: LC Branch and Bound solution - FIFO Branch and Bound solution; Traveling Sales person.

it 5	**NP-Hard and NP -complete problems :** Basic concepts : Non deterministic algorithms -The classes NP hard and NP complex; Cook's theorem - NP hard graph problems : Clique Decision Problem -Node cover decision problem chromatic number decision problem - Directed Hamiltonian cycle - Traveling sales person decision problem - and/or graph decision problem; NP-hard scheduling Problems: scheduling identical processors - flow shop scheduling -job shop scheduling; NP-hard code generation problems: code generation with common sub expressions -Implementing parallel assignment instructions; Some simplified NP-hard problems.

Text books

	Author	Title	Publisher
1	Sartaj Sahni	Fundamentals of Computer Algorithms.	2nd Edition, University Press

Reference books

	Author	Title	Publisher
1	Anany Levitin	Introduction to the Design & Analysis of Algorithms	2nd Edition, Pearson Education
2	I Chandra Mohan	Design and Analysis of Algorithms	PHI
3	Prabhakar Gupta and Vineet Agarwal	Design and Analysis of Algorithms	PHI
4	Parag Himanshu Dave	Design and Analysis of Algorithms	Pearson Education

20MCS202: SOFTWARE ENGINEERING

Details of the syllabus

Unit 1	**Introduction to software Engineering**- The Evolution Role of software, Software, Quality of Software, Software Evolution. Software Engineering Process Models- prescriptive models, waterfall model, Incremental model, RAD model, Evolutionary process model.
Unit 2	**Software Architecture** – Software Architecture, Data design, Architecture styles and patterns, Architectural design, mapping data flow into software architecture. Software Analysis Model- Requirements analysis, Data modeling concepts, Object-oriented modeling, Class- based modeling, flow-oriented modeling.
Unit 3	**Software Design Engineering**- Design within the context of software Engineering, Design process and quality, Design concepts, Design model, Pattern based software design. Software Testing Strategies – Static approach to software testing, Validation testing, System testing, Black-Box testing, White-Box testing, Object oriented testing models, Art of Debugging.
Unit 4	**Software Metrics**- Framework for product metrics, Metrics for analysis, Design, Source code, testing and maintenance, Metrics for process and project domains. Software Re-Engineering- Software Re-Engineering, Reverse Engineering, Restructuring, Forward engineering.
Unit 5	**Project Organization & Responsibilities**-, Project organizations, evolution of organizations. Process Automation- Automation building blocks, project environment. Project control & Process Instrumentation- The seven core metrics, Management indicators, Quality indicators, Life cycle expectations, Programmatic software metrics, Metrics automation, tailoring the process, Process discriminates.

Text books

	Author	Title
1	Roger S. Pressman	Software Engineering-A practitioner's Approach
2	Walker Royce	Software Project Management- A unified Framework

20MCS203: OPERATING SYSTEMS

Details of the syllabus

Unit 1	**Introduction:** Where does an operating system fit in? : System Levels, What Operating Systems do? : Hardware Resources, Resource Management, Virtual Computers, A Virtual Computer: Virtual Processor, Virtual Primary Memory, Virtual Secondary Memory, Virtual I/O. **The Hardware Interface:** The CPU: General- Purpose Registers, Control Registers, Processor Modes, Instruction Set, Machine Instructions in C++ code, Memory and Addressing, Interrupts, I/O Devices: Disk Controller.
Unit 2	**The Operating System Interface:** What are System Calls? : How to Make a System Call, What is a System Call Interface?, An Example System Call Interface: System Call Overview, Hierarchical File Naming System, File and I/O System Calls, open Files, Examples of File I/O, Naming Operating System Objects, Devices as files: Unification of the File and Device Concepts, The Process Concept: Processes and programs, process Management System Calls, Communication between Processes: Communication-Related System Calls, Example of Interprocess Communication, UNIX-Style Process Creation, Standard Input and Standard Output: Communicating with Pipes, Naming of Pipes and Message Queues, Summary of System Call Interfaces.
Unit 3	**Implementing Processes:** The System Call Interface, Implementation of a Simple Operating System: Guide to the Code, The Architecture, Implementation of Processes: Process Creation, process States, Process Dispatching, Flow of Control Through the Operating System.
Unit 4	**Memory Management:** Levels of Memory Management, Linking and Loading a Process: Creating a Load Module, loading a Load Module, Allocating Memory in a Running Process,, Variations in Program Loading: Load Time Dynamic Linking, Run Time Dynamic Linking, Solutions to the Memory Management Design Problem: Static Division into a Fixed Number of Blocks, Buddy Systems, powers-of-two Allocation, Dynamic Memory Allocation, Keeping Track of the Blocks: The List Method, Keeping Allocated Blocks on the Block List, Examples of Dynamic Memory

	Allocation: Logical and Physical Memory, Allocating Memory to Processes, Static Memory Management. **Virtual Memory:** Fragmentation and Compaction, Dealing with Fragmentation: Separate code and Data Spaces, Segments Noncontiguous Address Spaces, page Tables in Hardware Registers, Page Tables in Memory, Using a Page Table Cache, Analysis Models of Paging with Caching, Memory Allocation with Paging, Terminology: Page and Page Frame, Page Tables, Paging Summary.
Unit 5	**Virtual Memory Systems:** Page Replacement, Global Page Replacement Algorithms: Measuring the Performance of a Page Replacement Algorithm, Optimal Page Replacement, Theories of Program paging Behavior, Random Page Replacement, First In First Out FIFO Page Replacement, Least Recently Used Page Replacement, Approximations of LRU, Clock Algorithms, Page Replacement Examples, Local Page Replacement Algorithms: What Is a Working Set?, Program Phases, Variable Resident Set Sizes, The Working Set Paging Algorithm, Approximating the Working Set, WSClock Paging Algorithm.

Text books

	Author	Title	Publisher
1	Charles Crowley	Operating Systems: A Design-Oriented Approach	TATA MCGRA-HILL EDITION.

Reference books

	Author	Title	Publisher
1	Abraham Silberchatz, Peter B. Galvin, Greg Gagne	Operating System Principles	8th Edition, Wiley Student Edition.
2	Naresh Chauhan	Principles of Operating Systems	OXFORD University Press
3	Sumitabhadas	Unix Concept and application	----
4	YashwantKanetkar	Unix Shell Programming	----

20MCS204: DATABASE MANAGEMENT SYSTEMS

Unit 1	**Databases and Database Users**: Introduction, Characteristics of the Database Approach, Actors on the Scene, Workers behind the scene, Advantages of the using the DBMS Approach. **Database System Concepts and Architecture**: Data Models, Schemas and Instances, Three Schema architecture and Data Independence, Database Languages and Interfaces, Centralized and Client/Server Architecture for DBMS, Classification of Database Management Systems.
Unit 2	**Data Modeling Using the ER Model**: Conceptual Data models, Entity Types, Entity Sets, Attributes and Keys, Relationship types, Relationship sets, roles and structural Constraints, Weak Entity types, Relationship Types of Degree Higher than Two, Refining the ER Design for the COMPANY Database. **The Relational Algebra and Relational Calculus:** Unary Relational Operations: SELECT and PROJECT, Relational Algebra Operations from set Theory, Binary Relational Operations: JOIN and DIVISION, Additional Relational Operations, Examples, The Tuple Calculus and Domain Calculus. **The Enhanced Entity-Relationship Model**: Sub classes, Super classes and Inheritance, Specialization and Generalization, Constraints and Characteristics of Specialization and Generalization
Unit 3	**Functional Dependencies and Normalization for Relational Databases:** Informal Design Guidelines for Relation Schemas, Functional dependencies, Normal Forms Based in Primary Keys, General Definitions of Second and Third Normal Forms, Boyce-Codd Normal Form, Multivalued Dependencies and Fourth Normal Form, Join Dependencies and Fifth Normal Form, Inclusion Dependencies. **SQL-99: Schema Definition, Constraints, Queries and Views:** SQL Data Definitions and Data Types, Specifying Constraints in SQL, Schema Change Statements on SQL, Basic Queries in SQL, More Complex SQL Queries, INSERT, DELETE and UPDATE statements in SQL, Triggers and Views.
Unit 4	**Introduction to Transaction Processing Concepts and Theory:** Introduction to

	Transaction Processing, Transaction and System Concepts, Desirable Properties of Transactions, Characterizing Schedules Based on Recoverability, Characterizing schedules Based on Serializability. **Concurrency Control Techniques:** Two Phase Locking Techniques for Concurrency Control, Concurrency Control Based on Timestamp Ordering, Multiversion Concurrency control techniques, Validation concurrency control Techniques.
Unit 5	**Disk Storage, Basic File Structures and Hashing**: Introduction, Secondary Storage Devices, Buffering of Blocks, Placing file Records on Disk, Operations on Files, Files of Unordered Records, Files of Ordered Records, Hashing Techniques, Other Primary File Organizations, Parallelizing Disk Access using RAID Technology. **Indexing Structures for Files**: Types of Single-Level Ordered Indexes, Multilevel Indexes, Dynamic Multilevel Indexes Using B-Trees and B^+ Trees, Indexes on Multiple Keys, Other Types of Indexes.

Text books

	Author	Title	Publisher
1	Elmasri.R and Navathe.S	Fundamentals of Database Systems.	Pearson Education (2007) **Chapters:** 1.1 to 1.6, 2, 13.1 to 13.10, 14, 3.1 to 3.6, 3.9, 4.1 to 4.5, 5, 6, 8, 10, 11, 17, 18.1 to 18.5, 25.1 to 25.3, 25.6

Reference books

	Author	Title	Publisher
1	Peter Rob, Carlos Coronel	Database Systems– Design, Implementation and Management	Eigth Edition, Thomson (2008)
2	C.J. Date, A.Kannan, S.Swamynathan	An Introduction to Database Systems	VII Edition Pearson Education (2006).
3	Raman A Mata – Toledo, Panline K. Cushman	Database Management Systems	Schaum's Outlines, TMH (2007)
4	Steven Feuerstein	Oracle PL/SQL – Programming	10th Anniversary Edition, OREILLY (2008)

20MCS206: Unix Operating Systems Lab

List of programs

1. Write programs using the following system calls of UNIX operating system: fork, exec, getpid, exit, wait, close, stat, opendir, readdir
2. Write programs using the I/O system calls of UNIX operating system (open, read, write, etc)
3. Write C programs to simulate UNIX commands like ls, grep, etc.
4. Given the list of processes, their CPU burst times and arrival times, display/print the Gantt chart for FCFS and SJF. For each of the scheduling policies, compute and print the average waiting time and average turnaround time.
5. Given the list of processes, their CPU burst times and arrival times, display/print the Gantt chart for Priority and Round robin. For each of the scheduling policies, compute and print the average waiting time and average turnaround time.
6. Developing Application using Inter Process communication (using shared memory, pipes or message queues)
7. Implement the Producer – Consumer problem using semaphores (using UNIX system calls).
8. Implement some memory management schemes – I
9. Implement some memory management schemes – II
10. Implement any file allocation technique (Linked, Indexed or Contiguous)

20MCS207: Database Management Systems Lab

Cycle-I: Aim: Marketing company wishes to computerize their operations by using following Tables.

Table Name: Client- Master
Description: Used to store client information

Column Name	Data Type	Size	Attribute
CLIENT_ NO	Varchar2	6	Primary key and first letter must start with 'C'
NAME	Varchar2	20	Not null
ADDRESS 1	Varchar2	30	
ADDRESS S	Varchar2	30	
CITY	Varchar2	15	
PINCODE	Varchar2	8	
STATE	Varchar2	15	
BAL_DUE	Number	10,2	

Table Name: Product_ Master
Description: Used to store product information

Column Name	Data Type	Size	Attribute
PRODUCT _NO	Varchar2	6	Primary key and first letter must start with 'P'
DESCRIPTION	Varchar2	15	Not null
PROFIT _PERCENT	Number	4,2	Not null
UNIT _MEASUE	Varchar2	10	
QTY_ ON_ HAND	Number	8	
REORDER_ LVL	Number	8	
SELL _PRICE	Number	8, 2	Not null, cannot be 0
COST _PRICE	Number	8,2	Not null, cannot be 0

Table Name: Salesman_master
Description: Used to store salesman information working for the company.

Column Name	Data Type	Size	Attribute
SALESMAN_ NO	Varchar2	6	Primary key and first letter must start with 'S'
SALESMAN _NAME	Varchar2	20	Not null
ADDRESS1	Varchar2	30	
ADDRESS2	Varchar2	30	
CITY	Varchar2	20	
PINCODE	Number	8	
STATE	Vachar2	20	
SAL_AMT	Number	8,2	Not null, cannot be 0

TGT_TO_GET	Number	6,2	Not null, cannot be 0
YTD _SALES	Number	6,2	Not null
REMARKS	Varchar2	20	

Table Name: SALES-ORDER
Description: Used to store client's orders

Column Name	Data Type	Size	Attribute
ORDER_ NO	Varchar2	6	Primary key and first letter must start with 'S'
CLIENT _NO	Varchar2	6	Foreign Key
ORDER _DATE	Date		
DELY _ADDRESS	Varchar2	25	
SALESMAN_ NO	Varchar2	6	Foreign Key
DELY _TYPE	Char	1	Delivery: part(p)/ full(f) and default 'F'
BILL_ YN	Char	1	
DELY_ DATE	Date		Can't be less than order date
ORDER _STATUS	Varchar2	10	Values ("In Process", " Fulfilled", "Back Order", "Cancelled.

Table Name: SALES_ORDER_DETAILS
Description: Used to store client's order with details of each product ordered.

Column Name	Data Type	Size	Attribute
ORDER _NO	Varchar2	6	Primary key references SALES_ORDER table
PRODUCT_ NO	Varchar2	6	Foreign Key references SALES_ORDER_table
QTY_ ORDERED	Number	8	
QTY_ DISP	Number	8	
PRODUCT _RATE	Number	10,2	Foreign Key

Solve the following queries by using above tables.

1. Retrieve the list of names, city and the state of all the clients.
2. List all the clients who are located in 'Mumbai' or 'Bangalore'.
3. List the various products available from the product_master table.
4. Find the names of sales man who have a salary equal to Rs.3000.
5. List the names of all clients having 'a' as the second letter in their names.
6. List all clients whose Bal due is greater than value 1000.
7. List the clients who stay in a city whose first letter is 'M'.
8. List all information from sales-order table for orders placed in the month of July.
9. List the products whose selling price is greater than 1000 and less than or equal to 3000.
10. Find the products whose selling price is greater than 1000 and also find the new selling price as original selling price 0.50.
11. Find the products in the sorted order of their description.
12. Find the products with description as '540HDD' and 'Pen drive'.
13. Count the total number of orders.
14. Print the description and total qty sold for each product.
15. Calculate the average qty sold for each client that has a maximum order value of 15,000.

16. Find all the products whose quantity on hand is less than reorder level.
17. List the order number and day on which clients placed their order.
18. Find out the products and their quantities that will have to deliver in the current month.
19. Find the names of clients who have placed orders worth of 10000 or more.
20. Find the client names who have placed orders before the month of June,2008.

Cycle-II

Aim: A manufacturing company deals with various parts and various suppliers supply these parts. It consists of three tables to record its entire information. Those are as follows.

Supplier (Supplier_No, Sname, City, status)
Part(Part_no, pname, color, weight, city, cost)
Shipment (supplier_No, Part_no, city)
JX(project_no, project_name, city)
SPJX (Supplier_no, part_no, project_no, city)

1. Get supplier numbers and status for suppliers in Chennai with status > 20.
2. Get project names for projects supplied by supplier S.
3. Get colors of parts supplied by supplier S_1.
4. Get part numbers for parts supplied to any project in Mumbai.
5. Find the id's of suppliers who supply a red or pink parts.
6. Find the pnames of parts supplied by London supplier and by no one else.
7. Get the names of the parts supplied by the supplier 'Mart' and 'Miller'.
8. Get supplier names for suppliers who do not supply part P_2.
9. Get all parirs of supplier numbers such that the suppliers concerned are "colocated".
10. Get suppliers names for the suppliers who supply at least one red part.

Cycle –III Employee Database

Aim: An enterprise wishes to maintain a database to automate its operations. Enterprise divided into a certain departments and each department consists of employees. The following two tables describes the automation schemas.

Emp(Empno, Ename, Job, Mgr, Hiredate, Sal, Comm, Deptno)
Dept(Deptno, Dname, Loc)

1. List the details of employees who have joined before the end of September' 81.
2. List the name of the employee and designation of the employee, who does not report to anybody.
3. List the name, salary and PF amount of all the employees (PF is calculated as 10% of salary)
4. List the names of employees who are more than 2 years old in the organization.
5. Determine the number of employees, who are taking commission.
6. Update the employee salary by 20% , whose experience is greater than 12 years.
7. Determine the department does not contain any employees.
8. Create a view, which contains employee name and their manager names working in sales department.
9. Determine the employees, whose total salary is like the minimum salary of any department.
10. List the department numbers and number of employees in each department.
11. Determine the employees, whose total salary is like the minimum salary of any department.

12. List average salary for all departments employing more than five people.
13. Determine the names of employees, who take highest salary in their departments.
14. Determine the names of employees, who earn more than their managers.
15. Display ename, dname, even if no employee belongs to that department (use outer join)

ADUSUMILLI GOPALAKRISHNAIAH & SUGAR CANE GROWERS SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165, KRISHNA Dt., A.P. (AUTONOMOUS)

DEPARTMENT OF COMMERCE(PG)

M.Com

2020-2021

BOARD OF STUDIES

Minutes of Meeting

30-11-2020

DEPARTMENT OF COMMERCE (PG)

Minutes of the Board of Studies Meeting (Online) of Department of Commerce for M.Com held on 30/11/2020 at 11 AM. The following members were present.

Members Present		
Name of the Member	**Role**	**Signature**
Dr. T.Venkateswara Rao HOD PG Department of Commerce Mobile : 9848726150/9491737921	Chairman	
Dr. R. Padmaja, Assistant Professor in Business Management, Krishna University, Machilipatnam. Mobile: 9440532444,	University Nominee	
Dr. R. Siva Ram Prasad Professor, Dean, Department of Commerce & Business Administration , Acharya Nagarjuna University, Nagarjuna Nagar. Mobile : 98498 56589	Subject Expert	
Sri V.V. Punna Rao General Manager KCP Sugars Pvt. Ltd., Vuyyuru Mobile : 97044 56972	Industry Expert	V V Punna Rao
Prof. Rajesh C Jampala Dean Department of Commerce and Business Management PBS COLLEGE OF ARTS AND SCIENCE VIJAYAWADA Mobile : 98668 06069	Subject Expert	
Abdul Jabbar Vuyyuru Mobile : 70958 77869	One Post Graduate Meritorious Aluminous nominated by the Principal	Abdul Jabbar
Smt. P. Soumya Dept. of Commerce(P.G) AG & SG S College, Vuyyuru	Member	
Miss V. Anitha Dept. of Commerce (P.G) AG & SG S College, Vuyyuru	Member	
Miss P. Mohana Krishnasri Dept. of Commerce (P.G) AG & SG S College, Vuyyuru	Member	P.M.Krishna Sree

Agenda for B.O.S Meeting

1. To recommend syllabi for 1st and 2nd semesters of 1st M.com. Course for the Academic Year 2020-2021.
2. To recommend the Model Question Papers and guidelines of 1st and 2nd semesters of First M.com. For the Academic Year 2020-2021.
3. To recommend the guidelines to be followed by the Question Paper setters in 1st M.com for the 1st and 2nd semester- end exams.
4. To recommend the teaching and evaluation methods to be followed under Autonomous status.
5. Any suggestions regarding Seminars, Workshops, Guest lectures and research work to be organized.
6. Recommend the panel of paper setters and examiners to the controller of Examination of Autonomous courses of AG & SG Siddhartha degree college of Arts and Science College, Vuyyuru.
7. Any other matter.

RESOLUTIONS

1. Discussed and recommended the syllabi of 1st and 2nd semester of 1st M.com. For the approval of the Academic Council.
2. Discussed and recommended the model question papers of 1st and 2nd semesters of First M.com, for the approval of the Academic Council.
3. Discussed and recommended the guidelines to be followed by the question paper setter of 1st M.com for 1st and 2nd semester's .For the approval of the Academic Council.
4. Discussed and recommended the following teaching and evaluation methods for approval of Academic Council.

   Teaching methods:

   Besides the conventional methods of teaching, we use modern technology i.e. using of LCD projector to display on U boards and online teaching etc., for better understanding of concept.

   Evaluation of student is done by the following procedure:

   Internal Assessment Examinations:

   i) Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment.

   ii) Out of these 30 marks, 20 marks are allocated for announced internal tests. Four announced internal tests will be conducted and average of these Four tests shall be deemed as the marks obtained by the students, out of 10 marks 5 marks are allocated to assignments and seminars and remaining 5 marks are allocated to candidate's percentage of attendance.

   Semester-End Examinations:

   i) The maximum marks for Semester-End Examinations shall be 70 marks and duration of the examination shall be 3 Hours.

   ii) Semester-End Examinations shall be conducted in theory papers at the end of every semester.
5. Discussed and recommended for organizing Seminars, Guest lectures, Work-shops to upgrade the knowledge of students, for the approval of the Academic Council.
6. Discussed and empowered the H.O.D to suggest the panel of paper setters and Examiners to the Controller of Examinations.
7. Nil.

Chairman.

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.
(An autonomous college in the jurisdiction of Krishna University, Machilipatnam)

M.COM SEMESTER – I
SYLLABUS

CO101: MANAGEMENT THEORY AND PRACTICE

Unit–I: **Introduction: Management, Concept, Significance, Levels, Skills**, Functions and Principles - Management as an Art, Science and Profession – **Social responsibilities of business**.

Unit–II: Planning: Nature, Purpose, Process of Planning, Types of Plans – Premising & Forecasting, Decision Making: Concept, Process, Management By Objectives: Concepts, Process. Advantages and Limitations.

Unit–III: **Organizing: Process - Formal and Informal Organizations -Depart mentation: Methods of departmentation**, Span of Control; V.A. Graicuna's Theory - Factors Determining Span of Control - Delegation: Concept, Process, Advantages and Principles of Effective Delegation; Decentralization: Factors, Advantages and Disadvantages. Line and Staff: Concept- Reasons for Conflicts between Line and Staff and Measures to Overcome; Committees, Types of Committees.

Unit–IV: **Staffing: Nature and Importance of Staffing, Elements of Staffing**. **Directing:** Meaning, Assumptions of Human Behavior by Douglas McGregor, Edgar Shien and Elton Mayo.
Unit–V: **Motivation: Significance, Process**-Theories of Maslow, Herzberg, Porter and Lawler; Leadership: Trait Approach, Leadership Styles, Managerial Grid; Likert's Four Systems of Leadership- **Communication: Importance, Process, Barriers, Measures to overcome Barriers of an Effective Communication. Controlling:** Basis - Control Process, Requirements of adequate Control - Techniques of control, PERT and CPM

Suggested Books:

- Heinz Wihrich., H.Koontz and Markv Cannice, ***Management,*** 13ed. 2010, Tata McGraw, New Delhi
- Prasad L.M, Principles and Practice of Management, Edition2019, Sultan Chand and Sons, New Delhi.
- Rama Swamy T, Principles of Management. First Ed,.2014, Himalaya Publishing House, Mumbai.

Stoner, J. ***Management,*** 6th ed., 1995, Pearson Education, New Delhi

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M.COM. DEGREE EXAMINATIONS - First Semester

MANAGEMENT THEORY AND PRACTICE

(2017-2018 Regulation Onwards)

Duration: 3 hours **MODEL QUESTION PAPER** **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Concept of management

OR

b) Sills of management

ii. a) Explain the purpose of Planning

OR

b) Distinguish between the concepts Delegation and Decentralization.

iii. a) Classify the types of Committees.

OR

b) Define Departmentation.

iv. a) Define Staffing.

OR

b) Explain Executive Development Programme

v. a) Show the list of Leadership Traits.

OR

b) Define PERT AND CPM.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Explain the Nature and significance of Management.

(Or)

b) Discuss the functions of Management.

3. **a)** Define MBO. Explain the steps in MBO process.

(Or)

b) Describe steps in the process of Planning.

4. **a)** Examine the methods of Departmentation with merit and limitations of each.

(Or)

b) Define Span of Management. Analyze determining factors that influence span of management.

5. **a**) Identify the nature and elements of staffing.

(Or)

b) Distinguish between theory X and theory Y proposed by McGregor.

6. **a**)Examine the motivation theory of Need Hierarchy**.**

(**Or)**

b) Define Leadership. Categorize the Styles of leadership

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. **a**) Define Management. Explain the 14 principles of management as given by Henry Fayol.

(Or)

b) Define Communication. Analyze various barriers to effective communication. Suggest Measures to make communication more effective

The Guidelines to be followed by the question paper setters in **MANAGEMENT THEORY AND PRACTICE** for the first semester-end exams

PAPER TITLE: **MANAGEMENT THEORY AND PRACTICE**

PAPER-1 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: **Management Theory and Practice**	Course: M.Com.	Course Code: CO111	Department: Commerce (PG)
1. Dr.Md.S.Rahaman Associate Professor, Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. : 9866965767.		2. Dr. S.Srinivasa Rao, Assistant Professor, Department of Commerce, T.J.P.S.College, Guntur. Mobile No.: 9440887484.	

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M.COM SEMESTER – I
SYLLABUS

CO102: BUSINESS ECONOMICS

Unit-I: **Introduction – Definition, Nature and Scope of Managerial Economics**; Economic Goals of a Business Firm: Profit Maximization Vs Wealth Maximization, Sales Revenue Maximization.

Unit-II: **Consumer Equilibrium under Cardinal and Ordinal Utility - Demand Analysis** – Law of Demand – Demand Function and determinants of Market Demand – Concept of Price, Cross, Income and Promotional Elasticity; their measurement and relevance in Managerial Decision – Making Methods of Demand Forecasting.

Unit-III: **Firm's Equilibrium – Iso-quant and Iso-cost analysis; Least – Cost Combination of inputs –** The law of Diminishing Marginal Returns in Production – Production Function – Total Product, Marginal and Average Product Curves, their inter – relationships – Cobb – Douglas Production Function and its relevance - Scale and proportion, Cost Functions – Derivation of total, marginal and average cost functions – Long run cost curves

Unit-IV: **Market Structures and their characteristics** – Pricing and output Decisions of firm under different Market structures – Perfect Competition, Pure Monopoly, Oligopoly, Monopolistic / Imperfect Competition under short and long runs. Discriminative Monopoly Regulation of Monopoly through Prices and Taxes.

Unit-V: **Pricing Practices of Firms – Objectives of Pricing Policy** – Approaches to Pricing New Products; Skimming Price, Penetration Pricing, Costs Plus Pricing, Managerial Cost Pricing, Psychological Pricing, Odd Number Pricing, Regulated Pricing, Predatory Pricing

Suggested Books:

- Gauvrav Datt and Ashwani Mahajan, Indian Economy. 5th Ed, 2015, S Chand and Co, New Delhi.
- Mithani DM, Managerial Economics-Theory and Applications,5th Ed,2010,Himalaya publishing house ,Mumbai.
- Thomas R, Christopher Charles, Maurice, "Managerial Economics: Concepts and .Applications", 4th 2012, Tata McGraw-Hill, New Delhi..

Sudip Chaudhuri, Anindya Sen, Economics,19th Ed,2016,Tata Mc Grail Education Pvt Ltd, New Delhi

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS

First Semester

BUSINESS ECONOMICS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Define Wealth maximization

OR

b) Distinguish Business Economics from Managerial Economics.

ii. a) Explain Demand function

OR

b) Explain Consumer Equilibrium

iii. a) What is Marginal cost

OR

b) Explain Cobb-Douglas production function.

iv. a) Define Perfect competition.

OR

b) Define Oligopoly.

v. a) Explain Penetration Pricing.

OR

b) Analyse Good value strategy.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Define Business economics? Discuss its nature and scope?

(OR)

b) What are the economic goals of a firm?

3. a) What is the meaning of Demand? What are the determinants of market demand?

(OR)

b) Explain about the income elasticity of demand with some examples?

4. a) Examine the firm's equilibrium using ISOCOST and ISOQUANT Analysis?

(OR)

b) Explain the managerial uses of cost concepts?

5. a) Distinguish between perfect competition and monopolistic competition?

(OR)

b) Explain the features of oligopoly?

6. a) Examine briefly about objectives of pricing policy?

(OR)

b) Outline in detail about cost plus pricing and managerial cost pricing?

SECTION C - (1 x 10=10 marks)

Answer the following question.

7. a) Discuss how price determined under perfect competitive market?

(OR)

b) Explain the cost output relationships both in short-run and long-run?

The Guidelines to be followed by the question paper setters in BUSINESS ECONOMICS for the first semester-end exams

PAPER TITLE: BUSINESS ECONOMICS

PAPER-2 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Business Economics	Course: M.Com	Course Code: CO112	Department:Commerce (PG)
1. Dr.J.Durga Prasad Associate Professor, Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science, Vijayawada. Mobile No. 9848515628.		2. Dr. K.Sivaji, Assistant Professor, Department of Commerce & Business & Administration, T.J.P.S.College, Guntur. Mobile No.: 9440520219.	

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.
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M.COM SEMESTER – I
SYLLABUS

CO103: BUSINESS ENVIRONMENT

Unit-I: Business Environment: Components and Significance - Nature of Business Environment - Techniques of Environmental Scanning and Monitoring **– Economic Scope – Cultural, Political, Technological and External Factors Influencing Business Environment – Challenges- Economic systems.**

Unit-II: Economic Environment of Business: Significance for Business – Economic Planning – Objectives and Achievements; Government policies – Industrial policy of 1991; Fiscal policy; **Economic Reforms and LPG**

Unit-III: Political and Legal Environment of Business: Political Institutions – Legislature, Executive and Judiciary – Changing Dimensions of Legal Environment in India; **Patents Act-1970, SICA-1985, SEZ Act-2005.**

Unit-IV: **Cultural and Technological Environment**: **Elements of Socio – Cultural Environment; Impact on Business – Social Audit** - Technological Environment in India; Technology Transfer – Technology Policy.

Unit -V: International and Recent Issues in Environment: Multinational Corporations; Foreign Collaborations and Indian Business; International Economic Institutions: **WTO, World Bank, IMF and their importance to India;** Foreign Trade Policies.

Suggested Books

1. Francis Cherunilam, ***Business Environment***, 25th revised edition 2017,Himalaya Publishing House, Mumbai.
2. Fernando, A.C., ***Business Environment***, 1st edition 2011, Pearson, Delhi.
3. Suresh Bedi, ***Business Environment,*** 1st edition 2005, Excel Books, New Delhi,
4. Adhikary.M. ***Economic Environment of Business***, 2004, Sultan Chand & Sons, New Delhi.
5. Aswathappa.K. ***Essentials of Business Environment***, 12th revised edition 2014, Himalaya Publishing, Delhi.
6. Justin Paul, ***Business Environment***, Text and Cases, 12th edition 2018, Tata McGraw Hill.
7. H.L.Ahuja, "***Economic Environment of Business",*** 13th edition 2016, S.Chand, New Delhi.

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS

First Semester

BUSINESS ENVIRONMENT

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Define Concept of Environment (CO1)(L1)

OR

b) Explain Business Environment Scanning (CO1)(L2)

ii. a) Examine the Significance of Economic Environment of Business(CO2) (L4)

OR

b) Define LPG (CO2) (L1)

iii. a) Define Political Institutions (CO3) (L1)

OR

b) Define Legal Environment in India (CO3) (L1)

iv. a) Define Cultural Environment (CO4) (L1)

OR

b) Define Technological Policy (CO4) (L1)

v. a) Define Foreign Collaboration(CO5) (L1)

OR

b) Define WTO(CO5) (L1)

SECTION – B

Answer All Questions **5×8=40Marks**

2. (a) Define Business Environment? Explain the nature and significance of Business Environment? (CO1) (L1)

(OR)

(b) Explain various techniques of environmental scanning? (CO1) (L2)

3. (a) What is economic planning? Explain the objectives of present economic plan? (CO2) (L1)

(OR)

(b) Critically examine the new industrial policy resolutions? (CO2) (L4)

4. (a) Define the political institutions? Explain the role of Government towards Business. (CO3) (L1) (L2)

(OR)

(b) Identify the role of SEZ act 2005 in the present context? (CO3) (L3)

5. (a) Explain the elements of socio-cultural elements? (CO4) (L2)

(OR)

(b) Discuss the importance of technological environment in India? (CO4) (L6)

6. (a) Define MNC? Explain the scope and importance of MNC? (CO5) (L1)(L2)

(OR)

(b) Determine the role of IMF in India? (CO5) (L5)

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. **(a)** Define privatization? Explain the merits and demerits of privatization? (CO3)(L1)(L2)

(OR)

(b) Why WTO replaced GATT - Impact of Regional Trading Agreement on WTO? (CO5) (L1)

The Guidelines to be followed by the question paper setters in BUSINESS ENVIRONMENT for the first semester-end exams

PAPER TITLE: BUSINESS ENVIRONMENT

PAPER-3 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Business Environment	Course: M.Com	Course Code: CO113	Department:Commerce (PG)
1. Mrs.B.Kalpana Assistant Professor Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 7842669134.		2. Dr.J.Pratap Reddy, Professor, Dept.of Commerce, T.J.P.S.College, Guntur, Mobile: 9440542609.	

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.

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M.COM SEMESTER – I

SYLLABUS

CO104: ENTREPRENEURSHIP DEVELOPMENT

UNIT-I:

Entrepreneur: Evolution, Characteristics, Types, Functions of Entrepreneur - Factors influencing entrepreneurship - Barriers to entrepreneurship - Growth of Entrepreneurship in India -Women entrepreneurship in India - Role of Entrepreneurship in Economic Development

UNIT-II:

Idea Generation and Opportunity Assessment: Importance of Ideas in Entrepreneurship - Sources of New Ideas – Techniques for generating ideas- Steps in assessing business potential of an idea- Opportunity Recognition- sources and process- Steps in tapping opportunity.

UNIT-III:

Financing Of Enterprises: Need for Financial Planning- Sources of finance, Capital Structure, Term-loan, - Sources of Short-Term Finance, Venture capital, Export Finance**,-** Institutional Finance To Entrepreneurs, - Preparation of Business Plans**.**

UNIT-IV:

Institution support in small business enterprises: Introduction **–** central level institutions-KVIC;SIDO;NSIC ltd; National Productivity Council (NPC); EDII – State level institutions –DIC-SFC-SSIDC-Industry Associations- CII;FICCI;ASSOCHAM**.**

UNIT-V:

Government Policy and Taxation Benefits : Government Policy for SSIs- Need for tax benefits-Tax Holiday; Rehabilitation allowance ; Investment allowance ; Tax concessions for SSIs in rural and Rural and backward areas**.**

TEXT BOOKS

1. Osterwalder, Alexander and Yves Pigneur; "Business Model Generation", John Wiley & Sons, New Jersey, 2012.
2. Roy Rajeev,"Entrepreneurship" Oxford Latest Edition,2008

REFERENCE

1. Arya Kumar, Entrepreneurship, 1st Edition, Pearson, Delhi, 2012.
2. Poornima M. Ch., Entrepreneurship Development- Small Business Enterprises, 1st Edition, Pearson,Delhi, 2009
3. Afuah, Allan; "Business Models: A Strategic Management Approach", 1st Edition, McGraw-Hill, New York, 2004.
4. E. Gordon & K. Natarajan "Entrepreneurship Development" 6th Revised Edition, Himalaya Publishing house, 2008,

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MODEL QUESTION PAPER
M.COM. DEGREE EXAMINATIONS
First Semester
ENTREPRENEURSHIP DEVELOPMENT
(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Distinguish Entrepreneurship Vs. Intrapreneurship.

OR

b) Define an Enterpreneur

ii. a) Define the source of Ideas.

OR

b) Business Development

iii. a) What do you mean by Working Capital Management ?

OR

b) Project appraisal

iv. a) KVIC

OR

b) CII

v. a) Meaning of SSIs or

OR

b) Explain Tax Holiday

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Explain the importance of entrepreneurship in economic development.

(Or)

b) Elaborate the role of women entrepreneurship in India.

3. a) What are the steps in assessing business potential of an idea?

(Or)

b) Explain the importance of ideas in entrepreneurship.

4. a) What is meant by Venture Capital? Explain the relevance of Venture Capital finance in Economic Development.

(Or)

b) Discover the role of institutional finance in entrepreneurship development.

5. a) Examine the role of SFC in supporting small business enterprises in India.

(Or)

b) Evaluate the role of SFC in supporting small business enterprises

6. a) Critically examine the policy of the Govt. towards SSIs.

(Or)

b)What are the tax concessions available to SSIs in rural and backward areas?.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. a) What are the guidelines observed for project report preparation?

(Or)

a) Distinguish between management and entrepreneurship.

The Guidelines to be followed by the question paper setters in ENTREPRENEURSHIP DEVELOPMENT for the first semester-end exams

PAPER TITLE: ENTREPRENEURSHIP DEVELOPMENT

PAPER-4 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Entrepreneurship Development	Course: M.Com	Course Code: CO114	Department:Commerce (PG)
1. Mrs.G.Lalitha Madhavi Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No.: 7799209460		2. Dr. S.Srinivasa Rao, Assistant Professor, Department of Commerce, T.J.P.S.College, Guntur. Mobile No.: 9440887484.	

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.
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M.COM SEMESTER – I
SYLLABUS

CO105: INFORMATION TECHNOLOGY FOR BUSINESS

Unit-I: Information Technology (IT) in Business Environment: Business in the Information Age - Pressures and Responses, Why do we need to know about Information Technology, What is an Information System, Capabilities of Information Systems - Basic concepts of Information Systems, organizations - Structures and IT support - IT support at different organizational levels, Managing IT in organizations

Unit-II: IT Infrastructure: Computer Hardware - Input Technologies, Output Technologies - Computer Software - Types of software, general functions of Operating system, Types of application software - Managing organizational Data and Information - Basics of Data arrangement and Access, Traditional file Environment. Databases: Modern Approach, Database Management Systems - Logical Data Models, Data Warehouse. Telecommunications systems and Networks - Network communications software, Internet: Services provided by Internet, World Wide Web, Intranets and Extranets.

Unit-III: Information Systems to Support Business Functions: Transaction Processing Systems, Accounting and Finance Systems, Production Management Systems, Human Resources Management Systems, Integrated Information Systems and Enterprise Resource Planning, Inter-organizational/Global Information Systems. Electronic Commerce - Types, Benefits of E- Commerce, Infrastructure and E-commerce support, Legal and ethical issues in E-commerce. Computer-based Supply chain management and IS Integration: IT supply chain support and systems Integration: Enterprise Resource Planning.

Unit-IV: Data, Knowledge and Decision Support: Decision making and Decision support systems, Enterprise Decision support, Knowledge Management and Organizational Knowledge bases. Intelligent systems in Business: Export systems, Intelligent Agents.

Unit-V: Strategic Advantage and Information Technology: Strategic Organizations in the Information Age, Business Process Re-engineering, Virtual corporations and Information Technology - Implementing IT: Ethics, Impacts and Society, Ethical Issues, Impact of IT on Organizations and Jobs, on Individuals at Work, Societal Impact and Internet Communities, Protecting Information Systems.

Reference Books:

1. V. Rajaraman- Introduction to Information Technology 2nd Edition (2013), PHI
2. Turban/Rainer/Potter- Introduction to Information Technology, 3rd Edition Willey.
3. Alexis Leon, Mathew Leon, Fundamentals of Information Technology, 2nd Edition (2015) LeonVikas.
4. Turban/Volonino/Wood/O.P. Wali - Information Technology for Management,(2015).

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS

First Semester

INFORMATION TECHNOLOGY FOR BUSINESS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) What are the differences between Information Technology and Information Systems?

OR

b) What are the capabilities of information system?

ii. a) What are the various input devices of the computers?

OR

b)What are the differences between intranet and extranet

iii. a) Distinguish integrated information systems

OR

b) What is a human resource management systems

iv. a) What are the differences between decision making and decision support systems

OR

b) Explain knowledge management bases

v. a) Explain internet communities.

OR

b) What do you mean by business process re-engineering?

SECTION – B

Answer All Questions **5×8=40Marks**

2. a)What is an Information system. Explain the capabilities of Information systems

(OR)

b) Explain about Information Technology in organizations.

3. a) What is an operating system. Explain the general functions of operating systems.

(OR)

b) What are the differences between File based approach and Database Approach.

4. a)Explain the types and benefits of E-commerce.

(OR)

b) Explain briefly about computer based supply chain management.

5. a) Explain briefly about the features, benefits and limitations of export systems.

(OR)

b) Explain intelligent agents and how they are used in today business.

6. a) Explain how Information Technology is implemented in organization and its impact on society.

(OR)

b) What are the ethical issues involved in implementing Information Technology.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. a) What is DBMS. Explain the architecture and benefits of this system

(OR)

b) Explain the societal impacts of Information Technology and different ways of protecting Information Systems

The Guidelines to be followed by the question paper setters in INFORMATION TECHNOLOGY FOR BUSINESS for the first semester-end exams

PAPER TITLE: INFORMATION TECHNOLOGY FOR BUSINESS

PAPER-5 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Information Technology For Business	Course: M.Com	Course Code: CO115	Department:Commerce (PG)

1. Mrs.K.Sirisha, Lecturer, Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No.: 7032617871	2 Dr. K.Sivaji, Assistant Professor, Department of Commerce & Business & Administration, T.J.P.S.College, Guntur. Mobile No.: 9440520219

AG & SG Siddhartha Degree College of Arts & Science (Autonomous), Vuyyuru – 521 165.
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M.COM SEMESTER – I
SYLLABUS

CO106: QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

UNIT-I: Matrices, Differentiation, Permutations and combinations: **Matrices –Basic concepts** ,Solving system of equations with Cramer's rule and Inverse method - Differentiation and integration of simple functions and their applications- Permutations and Combinations.

UNIT-II: Correlation and Regression: Correlation: **Types of Correlation** - Simple and Rank Correlation coefficient in the case of two variables- **Regression**: **Meaning and importance of Regression Analysis**. Estimation of Lines of Regression in the case of two variables.

UNIT-III: Probability: Concept of Probability: Definitions of Probability, Addition Theorem of Probability, Conditional Probability and Multiplication theorems of Probability, Baye's Theorem of Probability and its **Applications**.

UNIT- IV: Theoretical distributions: Binomial Distribution, Poisson distribution and Normal distribution – their **Properties and Applications.**

UNIT-V: Testing of Hypothesis: Concept of Testing of Hypothesis, Types of Errors, Standard deviations and Proportions, Z- test for Means, T-test, F-test for two variances and Chi-Square test for goodness of fit and independent of Attributes and their Applications – Confidence intervals.

Suggested Books:

1. S.C. Gupta.-, Fundamentals of Statistics, 7th Revised Edition (2013) Himalaya Publishing House, New Delhi..
2. Sharma, J.K.-, Fundamentals of Business Statistics, 2nd Edition (2000) Pearson Education, New Delhi..
3. Sancheti, Dc & V.K Kapoor, Business Mathematics, 3rd Edition (2014) Sultan Chand &Sons, New Delhi..
4. Arora, P. N., S. Arora- Comprehensive Statistical Methods, 2nd Edition (2007) S. Chand, New Delhi.
5. Sharma, J.K., Quantitative Methods- Theory & Applications,3rd Edition (2010)Macmillan New Delhi.\

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MODEL QUESTION PAPER

M.COM. DEGREE EXAMINATIONS - First Semester

QUANTITATIVE TECHNIQUES FOR BUSINESS DECISIONS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

1. Answer All Questions **5×4=20 Marks**

i. a) Explain permutations and combinations.

OR

b) Distinguish Differentiation from Integration

ii. a) What is correlation and explain different types of correlation?

OR

b) What are the properties of regression coefficients?

iii. a) State Addition Theorem of Probability

OR

b) Define i) Exhaustive events ii) Equally likely events

iv. a) What is the importance of Poisson distribution?

OR

b) What are the properties of Binomial Distribution

v. a) Distinguish between Type-I and Type-II errors

OR

b) Explain the procedure for testing of hypothesis

SECTION – B

Answer All Questions **5×8=40Marks**

2.a) Solve the following Simultaneous Linear Equations by using Cramer's Rule

2x+y-Z=3; x+y+z =1; x-2y-3Z=4

OR

b)A company has examined its cost structure and revenue structure and has determined that C the total cost, R total revenue, and x the number of units produced are related as: $C=100+0.015\ x^2$ and R=3x Find the production rate x that will maximize profits of the company. Find that profit. Find also the profit when x=120.

3. a) Find the Karl Pearson's Coefficient of Correlation from the following data:

Marks in Economics	45	55	56	58	60	65	68	70	75	80	85
Marks in Statistics	56	50	48	60	62	64	65	70	74	82	90

OR

b)The following data about the sale and advertisement expenditure of a firm is given below.

	Sales(in Crores of Rupees)	Advertisement Expenditure(in Crores of Rs)
Means	40	6
Standard Deviation	10	1.5

Coefficient of Correlation =r= 0.9

I. Estimate the likely sales for a proposed advertisement expenditure of Rs. 10 Crores.
II. What should be the advertisement expenditure if the firm proposes a sales target of 60 Crores of Rupees?

4. a)i) A box contains 6 red, 4 white and 5 blue balls. From this box 3 balls are drawn in succession. Find the probability that they are drawn in the order red, white and blue if each balls is i) replaced ii) not replaced

OR

b) The contents of urns I, II and III are as follows:
1 white, 2 black and 3 red balls,
2 white, 1 black and 1 red balls, and
4 white, 5 black and 3 red balls
One urn is chosen at random and two balls drawn. They happen to be white and red. What is the probability that they came from urns I, II or III?

5.a) What is Normal Distribution? Explain characteristics and importance of the normal distribution.

OR

b) If 5% of the electric bulbs manufactured by a company are defective, use Poisson distribution to find the probability that in a sample of 100 bulbs (i) none is defective, (ii) 5 bulbs will be defective.(Given e^{-5}=0.007)

6. a) In a sample of 400 parts manufactured by a factory, the number of defective parts was found to be 30. The company, however, claimed that only 5% of their product is defective. Is the claim tenable?

OR

b) Two types fo batteries are tested for their length of life and the following data are obtained:

	No. of Samples	Mean life in Hours	Variance
Type A:	9	600	121
Type B:	8	640	144

Is there a significance difference in the two means? (Table value=2.131)

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7.a) From the following data, use x^2-test and conclude whether inoculation is effective in preventing tuberculosis:

	Attacked	Not attacked	Total
Inoculated	31	469	500
Not inoculated	185	1,315	1,500
Total	216	1,784	2,000

OR

b) In order to make a survey of the buying habits, two markets A and B are chosen at two different parts of a city. 400 women shoppers are chosen at random in market A. Their average weekly expenditure on food is found to be Rs.250 with a standard deviation of Rs.40. The figures are Rs.220 and Rs.55 respectively in the market B where also 400 women shoppers are chosen at random. Test at 1% level of significance whether the average weekly food expenditures of the two populations of shoppers are equal.

The Guidelines to be followed by the question paper setters in QUANTITATIVE TECHNIQUES FOR BUSINESS for the first semester-end exams

PAPER TITLE: QUANTITATIVE TECHNIQUES FOR BUSINESS

PAPER-6 Semester-1 Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Quantitative Techniques for Business Decisions	Course: M.Com	Course Code: CO116	Department: Commerce (PG)

1. Dr.B.Jaya Prakash, Associate Professor, Deputy Head, Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 9849813969.	2. Dr.J.Pratap Reddy, Professor, Dept.of Commerce, T.J.P.S.College, Guntur, Mobile: 9440542609.

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A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Business Law	Course: M.Com.	Course Code: CO211	Department: Commerce (PG)
1. . Mrs.B.Kalpana Assistant Professor Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 7842669134		2. Dr. B. Sankhar Babu, Assistant Professor, Department of Commerce, P.B Siddhartha College of Arts & Science Vijayawada Mobile No.: 9346487036	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Financial Management	Course: M.Com	Course Code: CO212	Department:Commerce (PG)
1. Dr. P.D M. Raju Professor, Department of Commerce Prabhas College, Vijayawada. Mobile No. 9440751609		2. . Dr. B. Sankhar Babu, Assistant Professor, Department of Commerce, P.B Siddhartha College of Arts & Science Vijayawada Mobile No.: 9346487036 .	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters			
Subject Name: Human Resources Management	Course: M.Com	Course Code: CO213	Department:Commerce (PG)
1. Mrs. A. Siva Naga Lakshmi, Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. .		2 Mrs.G.Lalitha Madhavi Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No.: 7799209460 .	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Marketing Management	Course: M.Com	Course Code: CO214	Department:Commerce (PG)
1. Mrs.B.Kalpana Assistant Professor Department of Commerce & Business Administration, P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 7842669134		2. P. Padmanabam Assistant Professor Department of Commerce, SRR & CVR College, Vijayawada.	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: Business analytics and Research Methods	Course: M.Com	Course Code: CO215	Department:Commerce (PG)
1. Dr.B.Jaya Prakash, Associate Professor, Deputy Head, Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada. Mobile No. 9849813969		2 Dr. P.D M. Raju Professor, Department of Commerce Prabhas College, Vijayawada. Mobile No. 9440751609	

A.G&S.G .Siddhartha Degree College of Arts & Science-Vuyyuru- 521165			
List of Paper Setters & External Examiners			
Subject Name: E-commerce	Course: M.Com	Course Code: CO216	Department: Commerce (PG)
1. . Mrs. A. Siva Naga Lakshmi, Assistant Professor Department of Commerce & Business Administration P.B Siddhartha College of Arts & Science Vijayawada.		2. M J Rajpaul, Assistant Professor Department of Commerce, SRR & CVR College, Vijayawada. Mobile No. 9502093357 .	

Course structure and scheme of Teaching and Examination
Master of Commerce

I SEMESTER

Paper Code	Paper Title	Teaching Hours/ week		Core / Elective	Internal Marks	External Marks	No. of Credits
		Lecture	Tutorial/ Practical				
CO111	Management theory and practice	5	1	Core	30	70	5
CO112	Business Economics	5	1	Core	30	70	5
CO113	Business Environment	5	1	Core	30	70	5
CO114	Entrepreneurship Development	5	1	Core	30	70	5
CO115	Information Technology for Business	5	1	Core	30	70	5
CO116	Quantitative Techniques for Business decisions	5	1	Core	30	70	5

II SEMESTER

Paper Code	Paper Title	Teaching Hours/ week		Core / Elective	Internal Marks	External Marks	No. of Credits
		Lecture	Tutorial/ Practical				
CO211	Business Law	5	1	Core	30	70	5
COM212	Financial Management	5	1	Core	30	70	5
COM213	Human Resources Management	5	1	Core	30	70	5
COM214	Marketing Management	5	1	Core	30	70	5
COM215	Business analytics and Research Methods	5	1	Core	30	70	5
COM216	E-commerce	5	1	Core	30	70	5
GE02	CBCS Paper -1	3	1	Elective	50	--	3

Business Laws

Subject Code :	**CO201**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

CO-1 To provide knowledge and understanding nature of the company and how to conduct the board meetings , appointment of the directors

CO-2 To know about how to prevent the money laundering in the business

CO-3 To provide expert knowledge on how to protect consumers and also provide the knowledge about to Right to Information Act

CO-4 To provide expert knowledge on Information Technology Act

CO-5 To know about the powers and freedom of corporate and business ethics

Unit –I

Companies Act 2013: Definition and Nature of Company - Incorporation of company – Prospectus - Shares and Debentures - Acceptance of Deposits - Appointment and Qualification of Directors - Meetings of Boards and its powers - Inspection and investigation - Compromises, arrangements and amalgamations - Prevention of oppression and Mismanagement - SEBI Act, 1992

Unit- II

Depositories Act, 1996 – Prevention of Money Laundering Act, 2002.

Unit- III

Consumer Protection Act, 1986 – Competition Act, 2002 – Environment Protection Act – Right to Information Act, 2005

Unit –IV

Foreign Exchange Management Act, 1999- Cyber laws-Information Technology Act, 2000.

Unit – V

Corporate Governance and Business Ethics – Ethical practices and guidelines: Internal to the Organization –Power and freedom: External to the organization.

References

1. Bulchandani RR : Business Law, Himalaya Publishing House.
2. SC Kuchal: Business Law, Vikas publishing House.
3. Agarwal UK : Consumer Protection in India (Deep & Deep)
4. Gulshan SS : Business Law (Excel)
5. Bare Acts

The Guidelines to be followed by the question paper setters in BUSINESS LAW for the second semester-end exams

PAPER TITLE: BUSINESS LAWS

PAPER-I Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

AG&SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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MODEL QUESTION PAPER

M.COM. (REGULAR) DEGREE EXAMINATION

Second Semester

BUSINESS LAWS

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer the Following Questions **5×4=20 Marks**

1. a. (i) Compromises.

(OR)

(ii) Debentures.

b. (i) Objectives of Deposition Act,1926

(OR)

(ii) Scope of prevention of money laundering act 2002.

c. (i) complaints

(OR)

(ii) Information exchange.

d. (i) Fintech

(OR)

(ii) Foreign policy

e. (i) Corporate governance.

(OR)

(ii) Code of conduct

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Discuss the prevention of the companies act 1950. Is regard to removal of directors by the Central Government?

(Or)

b) Define a manager and distinguish between a manager, managing director and a whole-time direction.

3. a) What is money laundering? Discuss how money laundering takes place?

(Or)

b) Explain how is a depository similar to a bank?

4. a) Explain the objectives and main provisions of Competition Act 2002.

(Or)

b) Explain the Right to Information Act 2005 in detail.

5. a) discuss the applicability and overall structure of FEMA Act 1999.

(Or)

b) State and explain the digital signatures, digital certificates and R.S.A algorithm

6. a) what do you understand by the term "Corporate Governance" ? Why is it important?

(Or)

b) Explain in detail the ethical practices by business in India.

SECTION C

Answer the following question. **(1 x 10=10 marks)**

7. a) Explain briefly important clauses of Memorandum of Associations of a Company?

(Or)

b) Explain Information Technology Act, 2000.

FINANCIAL MANAGEMENT

Subject Code :	**CO202**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

CO 1 To understand the perspective on financial management function in the company and in its relation to domestic and international economy.

CO 2 To provide illustration on financial management practices and policies, processes, techniques and strategies those are used in the financial management.

CO 3 To develop knowledge on the type and characteristics of problems and the possibility of the occurrence of financial management problems,

CO 4 To develop planning skill and monitoring skill in financial management functions effectively.

CO 5 To apply the appropriate working capital management strategy to face the company challenges.

Unit–I: Introduction: Nature, Scope and Objectives of Financial Management: Finance Function–Profit Goal vs. Wealth Goal Maximization - Financial Manager in Modern business Organizations (Theory)

Unit–II: **Investment decision**: Capital Budgeting process –Methods of appraisal: Traditional Techniques and Discounted Cash Flow Methods – NPV vs. IRR - Capital rationing (Theory & problems)

Unit–III: Financing decisions: Concept of leverage – Types of Leverages –EBIT – EPS Analysis – Capital Structure – Theories of Capital Structure – Net Income approach – Net Operating income approach – Traditional view – MM Hypothesis Cost of Capital**:** Types of Cost of Capital - Weighted average Cost of capital. Capital Structure Determinants.(Theory & problems)

Unit–IV: **Dividend decisions**: Kinds of dividends, Dividend Policy types, Dividend Theories – Walter's Model – Gordon's Model – M-M Hypothesis (Theory & problems)

Unit–V: Working Capital Management: Meaning, Significance, Types of Working capital, Determinants of working capital, and Methods of Measuring working Capital Requirements - Operating cycle -Financing of Working Capital-Management of Cash, Receivables, and Inventory (Theory & problems)

References

1. Chandra Bose D., Fundamentals of Financial Management, 2nd Edition (2006) Prentice Hall of India.
2. Khan M Y and Jain P. K., Basic Financial Management: Text and Problems, 2nd Edition (2005) Tata McGraw Hill.
3. Pandey I M., Financial Management, 11th Edition (2015) Vikas Publishing House Pvt. Ltd.
4. .Pandey & Bhat, Cases in Financial Management, 2nd Edition (2000) Tata McGraw Hill.
5. Prasanna Chandra, Financial Management - Theory and Practice, 10th Edition (2019) Tata McGraw Hill.

The Guidelines to be followed by the question paper setters in FINANCIAL MANAGEMENT for the second semester-end exams

PAPER TITLE: FINANCIAL MANAGEMNT

PAPER-II Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

AG&SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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MODEL QUESTION PAPER

M.COM. (REGULAR) DEGREE EXAMINATION

Second Semester

FINANCIAL MANAGEMENT

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20Marks**

1. **Write short notes on:**

a. (i) Financing function.

(OR)

(ii) NPV method

b. (i) Operating leverage

(OR)

(ii) Cost of equity

c. (i) WACC

(OR)

(ii) Operating cycle

d. (i) Gross VS Net working capital

(OR)

(ii) Kinds of dividends

e. (i) Objectives of Financial Management

(OR)

(ii) Significance of Working Capital Management.

SECTION – B

***Answer All Questions*5×8=40Marks**

2. a) Discuss in detail, the scope of Financial Management.

(OR)

b) Do you support the concept of Profit Maximization or Wealth Maximization? Give Reasons.

3. a) What is Capital Budgeting? Explain briefly about techniques of Capital Budgeting?

(OR)

b) A company is considering and investment proposal to install new machine at a cost of Rs.50, 000/-. The machine will last for 5 years and has no salvage value. The estimated cash flows after taxes are:

Years	1	2	3	4	5
Estimated Cash flows after taxes (Rs.)	10,000	10,450	11,800	12,250	16,750

Compute the following :

a) Pay-Back period b) Average rate of Return c) NPV at 10% d) IRR

4 .a) Explain Net Income and Net Operating Income approach of capital structure theories.

(OR)

b) A firm forecasts that it will produce 15, 00 units and generate EBIT or Rs. 3, 00,000. The DOL for a quantity level of 15,000 units is 2.5. There is a possibility that the actual output could range from 10% below to 5% above the forecast value. Calculate the range of possible forecast errors for EBIT in % terms and also corresponding EBIT values.

5. a) Show the implications of dividend policy according to Gordon's Model for the give information:

Particulars	Growth Firm	Normal Firm	Declining Firm
r	15%	10%	8%

All the firms have k=0.10 and EPS= Rs 10. Show the values when the firms adopt 40% and 60% pay-out ratio.

(OR)

b) What is the substance of Miller and Modigliani 'dividend irrelevance' theorem?

6. a) Explain the concept of working capital and the factors that determine the working capital needs of the firm.

(OR)

b) A cost sheet of a company provides the following data:

Particulars	**Cost per unit Rs**
Raw Material	52
Direct labour	19.5
Overheads	39
Total Costs	**110.5**
Profit	19.5
Selling Price	**130**

The following is the additional information available:

Average raw material in stock: one month;
Average materials in process: half month
Credit allowed by suppliers: one month
Credit allowed to debtors: two month;
Time Lag in payment of wages: one and a half weeks.
Overheads: one month.
One fourth of sales are on cash basis.

Cash balance is expected to be Rs. 1, 20,000. You are required to prepare a statement showing the working capital needed to finance a level of activity of 70,000 units of output. Assume that production is carried on evenly throughout the year and wages and overheads accrue similarly.

SECTION C

Answer the following question. **(1 x 10=10 marks)**

7. a) A company is considering an investment proposal to install new machine at a cost of Rs.50, 000. The machine will last for 5 years and has no salvage value. The estimated cash flows after taxes are:

Year	Estimated Cash flows after taxes
1	Rs. 10,000
2	Rs.10,450
3	Rs. 11,800
4	Rs. 12,250
5	Rs. 16,750

Compute the following:

a) Payback period
b) Average rate of return
c) Internal rate of return
d) Net present value at 10%

(OR)

b)Explain about various dividend theories.

HUMAN RESOURCE MANAGEMENT

Subject Code :	**CO203**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 To cover the basic concepts of Human Resource management.
- CO-2 To contribute the development of human resource planning, implementation, and evaluation of employee recruitment, selection, and retention plans and processes)
- CO-3 To develop, implement, and evaluate employee orientation, training, and development programs
- CO-4 To administer and contribute to the design and evaluation of the performance management program
- CO-5 To develop the students' ability to learn concepts like compensation, employee welfare, and industrial relation issues

Unit- I: Human Resource Management: Nature and significance, functions of HRM, Qualities and Role of HR Manager, HRM Model, HRM in a changing Environment.

Unit-II: Human Resource Planning: Objectives, process, factors affecting HR Planning, Requisites for successful HR Planning, Recruitment – Factors influencing, Sources of Recruitment – E- Recruitment-Selection Process – Placement, induction and Socialization – Promotion and Transfers

Unit-III: Employee Training: Significance – Identification of Training Needs – Employee Training Methods – Executive Development Methods – Evaluation of Training and Development Programs – Methods of Evaluation -Limitations to its effectiveness

Unit-IV: Performance Appraisal: Scope & Significance – Methods of Appraisal – Limitations of Appraisal - Career Planning and Development – Counseling- Mentoring-Coaching

Unit – V:Wage and Salary Administration: Wage Structure and Policy – Wage Differentials – Wage Payment Methods – Incentives – Fringe Benefits –Industrial Relations: Causes of Disputes and Settlement - Role of State in Industrial Relations - Collective Bargaining -Employee Participation in Management - Quality of Work Life.

References:

1. Aswathappa. Human Resource Management 6thEdition (2010). Tata McGraw Hill, New Delhi.
2. Biswanath Ghosh. Human Resource Development and Management, (2005) Jain Book Depot , New Delhi
3. C. B. Mamoria. Personnel management 21stEditiion (2012). Himalaya Publishing House , New Delhi:
4. Edwin Flippo. Personnel management 5thEdition (1994). Tata McGraw Hill, New Delhi.
5. Rajashree Shinde, A. Abhilasha, A. Ramakumar Human Resource Management 1st Edition (2017). Himalaya Publishing House, New Delhi.
6. Sahni Personnel Management 5th Edition (2005). Kalyani Publisher, New Delhi.
7. SubbaRao. Human Resources management 12thEdition (2011). Himalaya Publishing House, New Delhi.
8. V. S. P. Rao, Human Resources Management, 3rd Edition (2010). Excel Books, New Delhi.

The Guidelines to be followed by the question paper setters in HUMAN RESOURCE MANAGEMNT for the second semester-end exams

PAPER TITLE: HUMAN RESOURCE MANAGEMNT

PAPER-III Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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MODEL QUESTION PAPER

M.COM. (REGULAR) DEGREE EXAMINATION

Second Semester

HUMAN RESOURCE MANAGEMENT

(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20 Marks**

1. Write Short Notes on:

a. (i) Role of HRM

(OR)

(ii) Human Resource planning.

b. (i) Vestibule Training.

(OR)

(ii) Career planning.

c. (i) Quality of Work Life.

(OR)

(ii) Fringe benefits.

d. (i) E-Recruitment

(OR)

(ii) HRM Model.

e. (i) Sources of Recruitment.

(OR)

(ii) Wage Payment Methods.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Define Human Resource Management and discuss the objectives and functions of HRM.

(Or)

b) Explain the role of HRM in the changing environment.

3. a) What is human resource planning? Analyze various steps in the process of human resource Planning.

(Or)

b) Explain the Sources Recruitment with relevant merits and limitations

4. a) Identify the employee training methods.

(Or)

b) Show the Importance of training and Distinguish between employee training and executive development.

5. a) Discuss the methods of performance appraisal.

(Or)

b) Examine the Significance and limitations of Performance appraisal.

6.a) Define the concept wage and salary administration. Explain the wage payment methods.

(Or)

b) Evaluate the Methods of Employee participation in management.

SECTION C

Answer the following question. **(1 x 10=10marks)**

7. a) what is meant by the term Industrial Disputes? Discuss its causes and settlement mechanism.

(Or)

b) Define HRM. Explain the nature, scope& significance of HRM.

MARKETING MANAGEMENT

Subject Code :	**CO204**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 Understand the concepts of marketing and to know the changing context of marketing environment.
- CO-2 Appreciating the knowledge of consumer behaviour in implementing the marketing strategies to satisfy target customer and also distinguish between Marketing Information System and Market Research.
- CO-3 Conceptual understanding of product management and issues relating with marketing of services.
- CO-4 Understand different price strategies and the dynamics of channel management.
- CO-5 Be able to know the elements of promotion mix and the importance of integrated marketing communications.

Unit-I: Marketing-Concepts-Approaches to the Study of Marketing – Functions of Marketing-Marketing Environment.

Unit-II: Consumer Behavior – Factors affecting Consumer Behavior- Market Segmentation – Market Targeting and Positioning – Marketing Information System and Marketing Research.

Unit-III: Marketing Mix: Product Planning – New Product Development – Product Life Cycle– Branding &Packaging – Product line- Product Mix Management- Product Vs Service.

Unit-IV: Pricing and Distribution: Pricing Objectives – Methods and Strategies ; Channels of distribution – Channel Selection and Management -Retail Management.

Unit-V: Promotion: Promotion Mix-Personal Selling-Advertising - Sales Promotion, Publicity and Public Relations – Direct Marketing; Promotional strategies- Web Marketing – Integrated Marketing Communications.

References

1. Aparna Tembulkar, Marketing Management, 2nd Edition. (2014) Nirali Prakashan, Pune.
2. Kazmi S H, marketing Management: Text and Cases, 1st Edition, (2007), Excel Books, New Delhi.
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3. Philip Kotler, Kevin Lane Keller, Marketing Management –Global Edition, 15th Edition. (2016) Pearson India Education Services Pvt Ltd.
4. Rajan Suxsena, Marketing Management, 5th Edition.(2017) McGraw Hill Education (India) Private Limited.
5. Ramaswamy, Namakumari, Marketing Management: planning, Implementation & Control, 6th Edition, (2018), Sage Publisher, New Delhi.
6. Sherlekar S.A, Marketing Management, 13th Edition, (2008), Himalaya Publishing House, Mumbai.

The Guidelines to be followed by the question paper setters in

MARKETING MANAGEMENT for the second semester-end exams

PAPER TITLE: MARKETING MANAGEMNT

PAPER-IV Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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MODEL QUESTION PAPER
M.COM. (REGULAR) DEGREE EXAMINATION
Second Semester
MARKETING MANAGEMENT-CO204
(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20 Marks**

1. Write short notes on:

(a) (i) Product vs Service.

(OR)

(ii) Targeting

(b) (i) Marketing Information System

(OR)

(ii) Channel Conflict

(c) (i) Integrated Marketing Communication

(OR)

(ii) Psychological Pricing

(d) (i) Global Marketing

(OR)

(ii) Positioning.

(e) (i) Functions of Marketing.

(OR)

(ii) Pricing Objectives.

SECTION – B

Answer All Questions **5×8=40Marks**

2. a) Differentiate between sales and marketing. What are the core concepts of marketing?

(Or)

b) What are the elements of marketing environment? Explain their influence on marketing.

3. a) Define Marketing Research. Explain various steps involved in Marketing Research.

(Or)

b) Define Market Segmentation. What are the types of Market Segmentation? Explain them briefly.

4. a) What is meant by Product Life Cycle? Explain the stages of Product Life Cycle with Suitable illustration.

(Or)

b) Define Brand. What are the various Brand strategies?

5. a) Explain the objectives of Pricing. What are the various price adjustment strategies?

(Or)

b) What factors are to be considered in the selection of Channel Members? Explain the Channel selection criteria.

6. a) Describe the role of 'Web Marketing' in present day business context.

(Or)

b) Define 'Sales Promotion'. What are the sales promotion techniques followed by marketing companies? Explain with suitable examples.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. a) Define 'Consumer Behaviour' .Explain various factors influencing Consumer Behaviour.

(Or)

b) Define 'Advertising'. Explain its role in promotion of fast moving consumer goods.

BUSINESS ANALYTICS AND RESEARCH METHODS

Subject Code :	**CO205**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 To understand basic concepts of research and formulate research problems and process.
- CO-2 To generate an awareness of research design and data collection methods.
- CO-3 To develop and understand of sampling design and techniques.
- CO-4 To understand how to analyse and interpretation of the data.
- CO-5 To provide expert knowledge about to write a research report and thesis.

Unit –I : Introduction-Importance of Research, Types of research , Research Process-Problem Identification- Formulation-Classification, Concept and Construction of Hypothesis – Steps in Testing Hypothesis.

Unit-II: Research Design-Meaning, purpose and Principles – Types of Research Design – Exploratory- Descriptive- Experimental, Data Collection-Sources of Data-Methods of Data Collection-Questionnaire Design and Pre Testing of Questionnaire.

Unit-III: Sampling & Sampling Designs-Determination of Sample Size-Census Survey Vs Sample Survey –Advantages of Sampling-Sampling Methods-Probability Sampling-Non Probability Sampling.

Unit-IV: Data Tabulation-Analysis and Interpretation: Tabulation of data and general rules of tabulation Graphic and Diagrammatic Representation of Data-ANOVA-One way and Two way classification.

Unit-V: Research Report Writing and Presentation: Concept, Purpose, Guidelines for Research Report Writing –Steps in Report Writing-Layout of Report-Types of Research Reports-Presentation of Research Report.

Reference Books:

1. Panneer Selvam- Research Methodology, 2nd Edition (2014) PHI
2. Bhattacharya D.K., "Research Methodology" New Delhi. 2nd Edition (2006) Excel Books
3. Cooper, "Business Research Methods", , New Delhi. 11th Edition (2012) Tata McGraw Hill

The Guidelines to be followed by the question paper setters in BUSINESS ANALYTICS AND RESEARCH METHODS for the second semester-end exams

PAPER TITLE: BUSINESS ANALYTICS AND RESEARCH METHODS

PAPER-V Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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MODEL QUESTION PAPER
M.COM. (REGULAR) DEGREE EXAMINATION
Second Semester
BUSINESS RESEARCH METHODS
(2017-2018 Regulation Onwards)

Time: Three hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **(5X4 = 20 Marks)**

1. **Write short notes on:**

a) (i) Importance of Research

(OR)

(ii) Simple Random Sampling

b) (i) Research Problem

(OR)

(ii) Primary Vs Secondary data

c) (i) Procedure for Testing of Hypothesis

(OR)

(ii) Bar and Pie charts

d) (i) Layout of report

(OR)

(ii) Types of Tabulation

e) (i) ANOVA

(OR)

(ii) Research Design.

SECTION- B

Answer All Questions. **(5X8 = 40 Marks)**

2. a) What is Research? Explain the research process in details.

(OR)

b) Explain different types of research.

3. a) What is Research Design ? Distinguish between diagnostic and Exploratory Research designs.

(OR)

b) Briefly explain various techniques of data collection in business research.

4. a) Explain Principal steps in a Sample Survey?

(OR)

b) Distinguish between Systematic and Stratified Sampling.

5. a) What are different parts of statistical table? Give an example to illustrate.

(OR)

b) Explain the procedure for analysis of variance (ANOVA) two-way classification.

6. a) Explain various types of research reports used in business research?

(OR)

b) Explain the significance of research report and narrate the various steps involved in writing such a report.

SECTION- C

Answer the following question. **(1 x 10=10 marks)**

7. a) Set up an analysis of variance table for the following per acre production data for three varieties of wheat, each grown on 4 plots and state if the variety differences are significant.

Plot of Land	Per acre production data		
	Variety of Wheat		
	A	B	C
1	6	5	5
2	7	5	4
3	3	3	3
4	8	7	4

(OR)

b) Explain the criteria of Good Research and also explain problems encountered by researchers in India.

E-COMMERCE

Subject Code :	**CO206**	I A Marks	30
No. of Lecture Hours / Week	05	End Exam Marks	70
Total Number of Lecture Hours	75	Total Marks	100
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

- CO-1 To remember and understand the basic concepts of E-commerce, E-business Internet and World Wide Web.
- CO-2 To understand how different technologies are implemented in e-commerce.
- CO-3 To analyse the role of e-marketing and advertisements in e- commerce.
- CO-4 To analyse the impact of CRM and SCM on e-commerce.
- CO-5 To learn about different types of electronic payment system, protocols, security schemes and cash less economy.

Unit-I : History of E-commerce and Indian Business Context: origin of E-commerce – Traditional vs. E-Commerce - Internet and World Wide Web- Business Models for e-Commerce-B2C, B2B, C2C & C2B, Merits and Limitations- Advantages and Disadvantages of E-commerce - Introduction to E-business -E-commerce vs E-business

Unit-II: Technologies of the World Wide Web- Internet client-server application-Telnet, PTP, IRC, Chat, ICQ & MIME, Networks & Internet :communication switching -Network routers-URL-IPv6-TCP web site-Website goals & Objectives Strategies for website Development-ISP Broadband Technologies- Hypertext- JavaScript and XML

Unit-III: E-Marketing- Traditional Marketing, Online Marketing- Advantages of online Marketing - Advertisements in E-commerce- various means of advertising- advertisement strategies-Intelligent Agents.

Unit-IV: **CRM**-Traditional methods-Technology support-E-CRM-Customer Life Cycle- CRM Capabilities and Customer Life Cycle-Data Mining in CRM - e-Supply Chain- Old ways of Managing supply and information flow-new ways of managing supply chain- several ways to reduce inventory- Real time benefits of e-Supply Chain- objectives of SCM -E-supply chain Components and architecture-Major trends in E-SCM

Unit-V: **E-Commerce Payment Systems**-Electronic Payments with Protocols-Security schemes-Electronic Fund Transfer and Debit Cards-E-Cash, Properties of E-Cash-E-Cash in Action- Operational Risk and E-Cash-Legal issues- E- Cheque - Risk and E-Payments Systems-Cashless Economy

References

1. PT Joseph SJ E-Commerce, An Indian Perspective, 3rd Edition, Volume 2, (2010), Prentice Hall of India
2. Effraim Turban, Joe Lee, David Kind-H Michael Chung E-Commerce, A Management Perspective, 6th Edition (2009), Pearson Education Asia.
3. Pandey US & ShuklaEr. S., E-Commerce & M- Commerce Technology, Revised Edition (2018), S. Chand& Company New Delhi.
4. Gary P. Schneider, E-Commerce Strategy Technology & Implementation, 9th Edition (2012), Cengage Learning, New Delhi.
5. Trepper, E-Commerce Strategies, Prentice Hall of India (2006) revised Edition, New Delhi.
6. Jonathan Reynolds, E-Business A Management Perspective 2nd Edition (2009), Oxford University Press.

The Guidelines to be followed by the question paper setters in E-COMMERCE for the second semester-end exams

PAPER TITLE: E-COMMERCE

PAPER-VI Semester-II Maximum Marks: 70 Duration: 3 Hours

Weightage for the question paper

Syllabus	Section –A (short answer questions) (**with internal choice**)	Section- B (Long answer questions) (**with internal choice**)	Section –C (essay question) (**with internal choice**)
Unit -1	1 (a or b)	1 (a or b)	Any unit
Unit -2	1 (a or b)	1 (a or b)	
Unit -3	1 (a or b)	1 (a or b)	
Unit -4	1 (a or b)	1 (a or b)	
Unit -5	1 (a or b)	1 (a or b)	

- Each short answer question carries 4 marks in section-A.
- Each long answer question carries 8 marks in section-B.
- Each essay answer question carries 10 marks in section-C.

The Question Paper Setters are requested to cover all the topics in the syllabus stipulated as per the weightage given by us.

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MODEL QUESTION PAPER
M.COM. (REGULAR) DEGREE EXAMINATION
Second Semester
E-COMMERCE
(2017-2018 Regulation Onwards)

Duration: 3 hours **Maximum Marks: 70**

SECTION- A

Answer Any Five of the Following Questions **5×4=20 Marks**

1. Write short notes on:

a) (i) B2C

(OR)

(ii) World Wide Web

b) (i) Software Agent

(OR)

(ii) XML

c) (i) Intelligent Agents

(OR)

(ii) Supply Chain Management

d) (i) Electronic Fund Transfer

(OR)

(ii) Online Marketing

e) (i) E-Cash

(OR)

(ii) Website Goals

SECTION – B

Answer All Questions **5×8=40Marks**

2. (a)Explain Business models of E-commerce.

(Or)

(b) What are the advantages and Disadvantages of E-commerce? s

3. (a)Explain Internet Client-Server Applications.

(Or)

(b) Explain Website goals, Objectives and Strategies.

4. (a)What is e-marketing? Distinguish E-marketing and Traditional Marketing

(Or)

(b) What are the strategies and advantages of advertisements in e-commerce?

5. (a) Explain Old ways of managing supply and information flow-new way of Managing supply chain and Supply chain Architecture.

(Or)

(b) Explain CRM Technology, CRM toolkit and CRM customer life cycle.

6. (a)Explain various security schemes in Electronic Payment System.

(Or)

(b) Explain Different protocols used in Electronic Payment system.

SECTION - C

Answer the following question. **(1 x 10=10 marks)**

7. (a) Explain the concept of ISP Broadband Technologies.

(Or)

(b) Explain the Role of E-commerce in India.

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HUMAN VALUES AND ETHICS (1L + 1T + 1P)

Subject Code :	GE02	I A Marks	50
No. of Lecture Hours / Week	03	End Exam Marks	-
Total Number of Lecture Hours	45	Total Marks	50
Practical Component	01 Hour/Week	Exam Hours	03

Course Outcomes: By the end of the course, students will be able:

CO 1 To provide the basic understanding about importance of Value Education, Self-Exploration, and Human aspirations.
CO 2 To understand the importance of Process for Value Education
CO 3 To gain knowledge on Understanding Harmony in the Human Being
CO 4 To understand the concept of Harmony in Myself
CO 5 Understanding Harmony in the Family and Society – harmony in Human - Human Relationship

Unit – I: Introduction –Need, Basic Guidelines and Content

1. Understanding the need , basic guidelines, content and process for value Education
2. Self-Exploration – What is it? – its content and process: 'Natural Acceptance' and Experiential Validation – as the mechanism for self-explanation
3. Continuous Happiness and Prosperity – A look at basic Human Aspirations

Unit – II: Process for Value Education

1. Right Understanding, Relationship and Physical Facilities – basic requirements for fulfillment of aspirations of every human being with their correct priority
2. Understanding Happiness and prosperity correctly – A critical appraisal of the current Scenario 17
3. Method to fulfill the above human aspirations; understanding and living in harmony at various levels

Unit – III: Understanding Harmony in the Human Being

1. Understanding human being as a co-existence of the sentient 'I' and the material 'Body'
2. Understanding the needs of Self ('I') and 'Body'
3. Understanding the Body as an instrument of 'I' (I being the doer, seer and enjoyer)

Unit –IV: Harmony in Myself

1. Understanding the characteristics and activities of 'I' and harmony in 'I'
2. Understanding the harmony of I with the Body - correct appraisal of Physical needs, meaning of Prosperity in detail
3. Programs to ensure Sanyam and Swasthya – practice exercises and Case Studies will be taken up in Practice Sessions.

Unit – V: Understanding Harmony in the Family and Society – harmony in Human - Human Relationship

1. Understanding harmony in the family – the basic unit of human interaction
2. Understanding values in human relationship; meaning of Nyaya and Program for its fulfillment to ensure Ubhay-tripti
3. Trust (Vishwas) and Respect (Samman) as the foundational values of relationship.

Text Books

R R Gaur, R,Sangal, G.P Bagaria, 2009, A Foundation Course in value Education(English)
Pradeep Kumar Ramancharla, 2013, A foundation course in value education (Telugu)
R R Gaur, R Sangal G P Bagaria, 2009, Teacher's Manual (English)
Pradeep Kumar Ramancharla, 2013, Teacher's Manual (Telugu)

Reference Books

1. Ivan IIIich, 1974, Energy& Equity, The Trinity Press, Worcester, and harper Collins, USA
2. E.F. Schumacher, 1973, small is Beautiful; a study of economics as if people mattered, Blond & Briggs, Bratain
3. A Nagraj, 1998, Jeevanvidya to Na Prayanam, Hyderabad
4. R.Pradeep Kumar, 2013, JeevanVidya to Na Prayanam, Hyderabad
5. Sussan George, 1076, How the other half Dies, Penguin Press, Peprinted 1986, 1991
6. PL Dhar, RR Gaur, 1990, Science and Humanism, common wealth publishers
18
7. A.N. Tripathy, 2003, Human values, New Age International Publishers
8. SubhasPalekar, 2000, How to practice natural Farming, Pracheen (Vaidik) Krishitantrashodh, Amravati
9. Donella H. Meadows, Dennis L. Meadows,Jorgen Randers, William W. Behrens III,1972, Limits to Growth – club of Rome's report, universe Books
10. E.G. Seebauer& Robert, L BERRY, 2000, Foundationals of Ethics for Scientists & Engineers, Oxford University Press
11. M. Govindrajran, S Natrajan& V.S. Senthi Kumar, Engineering Ethics (including human Values), Eastern Economy Edition, Prentice hall of India Ltd
12. B P Banerjee, 2005, Foundations of Ethics and Management, Excel books
13. B.L. Bajpai, 2004, Indian Ethos and Modern Management , New Royal book Co; Lucknow, Reprinted 2008

Relevant CDs, Movies, Documentaries & Other Literature

1. Value Education Website, http://www.uptu.ac.in
2. Story of Stuff, http://www.storyofstuff.com
3. .AlGore, An Inconvenient Truth, paramount Classics, USA
4. Charlie Chaplin, Modern Times, United Artists, USA