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

DEPARTMENT OF BOTANY

2018-2019

BOARD OF STUDIES

Minutes of Meeting

24-04-2018

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 24-04-2018 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)..... L: Suseela 24.4.18..University **(Smt. Dr.L.Suseela)** Nominee	Department of Biotechnology & Head (I/c) Botany, Krishna University, Machilipatnam.
3)..... T. Rose mary .....Academic **(Dr. Mrs. Rose Mary)** Council Nominee	Head, Department of Botany Andhra Loyola College Vijayawada
4)..Ch. Srinivasa Reddy..... Academic **(Sri.Dr.CH.Srinivasa Reddy)** Council Nominee	Head, Department of Botany P.B. Siddhartha Degree College Vijayawada
5)..... N: Ramana Rao .....Member **(Sri. N. Ramana Rao)**	Ad hoc Lecturer in Botany AG & SGS Degree College of Arts & Science (Autonomous), Vuyyuru-521165.
6)..... G: Ganesh .....Member **(Sri. E. Ganesh)**	Ad hoc Lecturer in Botany AG & SGS Degree College of Arts & Science (Autonomous), Vuyyuru-521165.

Agenda for B.O.S Meeting:

1. To recommend the syllabi (Theory & Practical), Model question paper & Guide lines for Semesters I & II of I B.Sc (BZC) in the academic year 2018-19.

2. To recommend the syllabi (Theory & Practical), Practical syllabus, Model question paper & Guide lines to the Paper setters for III & IV Semesters of II B.Sc (BZC) for the academic year 2018-19.

3. To recommend the syllabi (Theory & Practical), Practical syllabus, Model question paper & Guide lines to the Paper setters for V & VI Semesters of III B. Sc (BZC) for the academic year 2018-19.

4. To discuss to the syllabus of Elective & Clusters in VI semester to be for the academic year 2018-19.

5. To recommend the Guide lines to be followed by the question papers setters in Botany for I,II,III,IV,V&VI Semester –End exams.
6. To introduced a certificate course - Mushroom culture for B.Z.C students in this academic year of 2018-19.
7. To recommend the teaching and evolution methods to be followed under Autonomous statues.

8. Any other matter.

CH. Beelah Ranjan
Chairman

RESOLUTIONS

1. It is resolved to continue the same syllabi (Theory & Practical), model question paper & guide lines to be followed by the question paper setters of Botany of I & II semesters of I B.Sc. (B.Z.C) under Choice Based Credit System (CBCS) approved by the Academic Council of 2018 – 19.
2. It is resolved to implement the syllabi (Theory & Practical), model question paper & guide lines to be followed by the question papers under Choice Based Credit System (CBCS) setters of Botany of III & IV semesters of II B.Sc. (B.Z.C) approved by the Academic Council of 2018 – 19.
3. It is resolved to implement the same syllabi & model papers under Choice Based Credit System (CBCS) setters of Botany of III & IV semesters of II B.Sc. (B.Z.C) approved by the Academic Council of 2018 – 19.
4. It is resoled to follow Elective-AC (Plant tissue culture and its Biotechnological applications) and Cluster –B (plant Diversity and human welfare, Ethno Botany and Medicinal Botany, Pharmacognosy and phyto chemistry.) In VI Semester from the Academic year 2018-19.
5. It is resolved to Continue the same Blue prints of I,II,III,IV,V & VI Semesters of B. Sc Botany for the Academic year 2018-19.
6. It is resolved to
7. It is resolved to continue the following teaching and evolution methods for the Academic year 2018-19.
8. 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:

- 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 2018-2019 – UG)

Internal Assessment (IA):

- The maximum mark for IA is 30 and SEM is 70 for theory; and for practical papers 50.
- 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.
- 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 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:

I. Internal Assessment Examinations:

- Out of maximum 100 marks in each paper, 30 marks shall be allocated for internal assessment.
- Out of these 30 marks, 15 marks are allocated for announced tests. 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 for seminars & remaining 5 marks for assignments to the Semesters I, II. For the III , IV , V & VI semesters it is resolved to continue the same as approved by Academic Council in 2017 -18.

II. Semester-End Examinations:

- The maximum marks for II & III B.Sc (BZC) Semester-End examinations 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 end of I, II, III, IV, V & 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

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

An autonomous college in the jurisdiction of Krishna University

BOTANY	BOT- 101C	w.e.f. 2018-19	B. Sc. (BZC)

SEMESTER - I **PAPER - I**

Total hours of teaching 60 hrs @ 4 hrs per week Credits: 4

Microbial Diversity, Algae and Fungi

UNIT- I: Origin and Evolution of Life, Microbial diversity (12 hrs)

1. Origin of life –theories introduction; Lamarckism, Darwinism and Neo Darwinism.
2. Geological time scale
3. Microbial diversity-Mycoplasma – Chlamydia -Archaebacteria –Actinomycetes

UNIT- II: VIRUSES AND BACTERIA (12 hrs)

1. Viruses: General account of Viruses, structure, replication and transmission of plant diseases caused by Viruses.
2. Bacteria**:** Structure, nutrition, reproduction and economic importance. Outlines of plant diseases of important crop plants caused by Bacteria (Citrus canker, leaf blight of rice, Angular leaf spot of Cotton) and their control.

UNIT III: CYANOBACTERIA AND LICHENS (12 hrs)

1. Cyanobacteria: General account of cell structure, thallus organization and their uses as Biofertilizers.
2. Structure, reproduction and life history of *Nostoc* and *Scytonema.*
3. Lichens – Morphology –Anatomy –Reproduction –Economic importance.

UNIT –IV Algae (12 hrs)

1. General account, Fritsch classification of Algae and economic importance.
2. Structure, reproduction, life history of *Oedogonium, Vaucheria* and *Ectocarpus.*

UNIT V: FUNGI (12 hrs)

1. General characters, classification (Alexopolous) and economic importance.
2. Structure, reproduction and life history of *Albugo, Penicillium, Puccinia.*
3. General account of plant diseases caused by Fungi (Late blight of potato, Red rot of Sugarcane and Paddy blast) and their control.

I B.Sc – BOTANY

Paper Code: BOT- 101 C **THEORY MODEL PAPER** **SEMESTER- I**

Paper-I: Microbial Diversity, Algae and Fungi

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

Pass Mark: 28

SECTION-A (Short Answer Questions)

Answer any *Five* of the following questions. **5x4=20M**

1. Mycoplasma
2. Actinomycetes.
3. Struggle for existence.
4. Transformation.
5. Morphology of *Scytonema*.
6. Plurilocular sporangia.
7. Economic importance of *Penicillium*.
8. Red rot of Sugarcane

SECTION-B (Essay Questions)

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

9. Write an essay on geological time scale.
10. Write an essay on the cell structure and nutrition in bacteria.
11. Describe the structure & replication of Virus.
12. Write an essay on Cyanobacteria as Biofertilizers.
13. Describe the morphology and economic importance of Lichens.
14. Describe the life history of macrandrous species in *Oedogonium*.
15. Describe the life history of *Vaucheria.*
16. Write about the life history of Macrocyclic heterogenous rust.

Guide lines for paper setter: (for Paper I – BOT- 101C) w.e.f. 2018-19.

1. In **section A**: Unit II, III &IV must carry **ONE** question from each Unit and Unit V must carry **TWO** questions and Unit I must carry **THREE** questions.
2. In **section- B**: **ONE** question each from Unit I &III and **TWO** questions each from Unit II, IV & 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	3		1		
		12		10	22
Unit - II	1		2		
		4		20	24
Unit – III	1		1		
		4		10	14
Unit – IV	1		2		
		4		20	24
Unit – V	2		2		
		08		20	28
Max. Q & marks	8	(x 4) = 32	8	(x 10) = 80	(Total questions =16) Total marks = 112
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	5		5		
		(5 X 4) = 20		(5 X 10) = 50	70

INTERNAL EXAMS – 30 Marks

(15 marks for unit tests, **5 marks** for assignments, **5marks** for attendance, **5marks** for seminars).

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BOTANY	BOT- 201C	w.e.f.2018-19	B. Sc. (BZC)

I B. Sc - BOTANY SYLLABUS

PAPER CODE : BOT – 201C **SEMESTER- II**

Paper II: ***Diversity of Archaegoniatae & Plant Anatomy***

Total hours of teaching 60 hrs @ 4 hrs per week **Credits: 4**

UNIT – I: BRYOPHYTA (14 hrs)

1. Bryophyta: General characters and classification (up to classes only).

2. Structure, reproduction and Life history of *Marchantia* and *Polytrichum*.

3. Evolution of Sporophyte in Bryophytes.

UNIT - II: PTERIDOPHYTA (14 hrs)

1. Pteridophyta: General characters and Classification (up to classes only).

2. Structure, reproduction and life history of *Lycopodium* and *Marsilea*.

3. Heterospory and seed habit

4. Stelar Evolution in Pteridophytes

UNIT – III: GYMNOSPERMS (12 hrs)

1. Gymnosperms: General characters and classification (up to classes only).

2. Morphology, Anatomy, reproduction and life history of *Pinus* and *Gnetum*.

UNIT – IV: Tissues and Tissue systems (10 hrs)

1. Tissues: Meristematic and permanent tissues (Simple and Complex).

2. Shoot apical meristems and its histological organization.

3. Root apical meristems and its histological organization.

UNIT –V: Secondary growth. (10 hrs)

1. Anomalous secondary growth in *Dracaena, Boerhaavia* and *Bignonia*.

2. Wood structure- general account, Study of local timbers Teak, Rosewood, Red sanders and *Terminalia tomentosa*.

I B. Sc – BOTANY Model Question Paper

Paper Code: ***BOT - 201*** **SEMESTER- II**

PAPER-II*: Diversity of Archaegoniatae & Plant Anatomy*

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

Pass Mark: 28

(*Draw diagrams wherever necessary*)

SECTION-A (Short Answer Questions)

Answer any **five** of the following question **5x4=20Marks**

1. Gemma Cup.
2. Cone of *Lycopodium*
3. *Pinus* ovuliferous scale
4. Collenchyma.
5. Tunica – Corpus theory.
6. Phloem.
7. Botanical name, family and uses of Teak.
8. Botanical name, family and the properties of wood of Red sanders.

SECTION-B

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

9. Write an essay on Evolution of sporophyte in Bryophytes.
10. Describe Sexual reproduction in *Polytrichum.*
11. Write an essay on the Stelar evolution in Pteridophytes.
12. Describe the structure of the sporocarp of *Marselia*.
13. Describe the internal structure of the *Pinus* needle & Mention its xerophytic characters.
14. Describe the female gametophyte in *Gnetum*.
15. Describe various theories regarding the organization of Root apex.
16. Give an account of the Anomalous secondary growth in *Boerhaavia*.

Guide lines for paper setter: (for Paper II – BOT- 201C) w.e.f. 2018-19.

1. In **section A**: Unit I, II & III must carry **one** question from each Unit, Unit IV must carry **Three** questions and Unit V must carry **two** questions.
2. In **section- B**: Set minimum **two** questions from Unit I, II & III. **One** question each from Unit IV 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	1		2		
	04		20		24
Unit - II	1		2		
	04		20		24
Unit – III	1		2		
	04		20		24
Unit – IV	3		1		
	12		10		22
Unit – V	2		1		
	08		10		28
Max. Q & marks	5 (x 4) = 20		5 (x 10) = 50		(Total questions =16) Total marks = 112
Max. Q and marks for Valuation	Questions	Marks	Questions	Marks	Max. marks
	5		5		
	(5 X 4) = 20		(5 X 10) = 50		70

INTERNAL EXAMS – 30 Marks

(15 marks for unit tests, **5 marks** for assignments, **5marks** for attendance, **5marks** for seminars).

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BOTANY	BOT-301C	w.e.f. 2018-19	B. Sc. (BZC)

II B. Sc - BOTANY

SEMESTER - III PAPER – III

Plant Taxonomy and Plant Physiology

Hours: 60 @ 4 hrs per week -

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

1. Fundamental components of taxonomy (identification, nomenclature, classification types and phylogeny)
2. Salient features and comparative account of Bentham & Hooker and Engler & Prantl's classification.
3. Role of chemotaxonomy, cytotaxonomy and taximetrics in relation to Taxonomy.

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 and Fertilizers (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.

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BOTANY	BOT- 301	w.e.f. 2018-19	B. Sc. (BZC)

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

Paper Code: BOT - 301 **Max. Marks: 75**

PAPER-III: Plant Taxonomy and Plant Physiolog

Time: 3 Hours **Pass Marks: 30**

(*Draw diagrams wherever necessary*)

SECTION-A (Short Answer Questions)

Answer any **five** of the following questions. **5x5=25Marks**

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**

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 2018-19

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
	5 (5 X 5M) = 25 M		5 (5 X 10M)= 50 M		75M

[**INTERNAL EXAMS - 25Marks (15** marks for unit tests, **5** marks for assignments and remaining **5** marks for attendance.)]

II B.Sc - BOTANY PRACTICAL SYLLABUS (w.e.f. 2)

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

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

Total hours of laboratory Exercises 45 hrs @ 3 per week

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.

II B.SC BOTANY PRACTICAL EXAM (BOT-301P) w.e.f. 2018-19

Time: 3 Hrs. Max. Marks: 50

External Marks: 35

Plant Taxonomy and Plant Physiology

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 – 5M)

Total -----50M

Scheme of valuation for II B.Sc **Botany practical Exam**

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.
Total = 11 M

2. Material 'B' – (Family name - 1, Identification with reasons - 2) Total = 03M
3. Material 'C' –Physiology –minor experiment
   Salient features 3M
   Diagram ..... 2M =05M
4. 'D' & 'E'(2 Herbarium sheets from students collection) Total = 03M

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

5. Herbarium. = 03 M

Total = 25 M

Internal : **25M**
(Attendance – 5 M + Record -10M + Field trip diary – 5M + Viva – 5M)

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BOTANY	BOT-401	w.e.f. 2018-19	B. Sc. (BZC)

II B. Sc - BOTANY SYLLABUS

SEMESTER - IV PAPER – IV Hours: 60 @ 4 hrs per week

Plant Embryology and Plant Metabolism

UNIT – I: EMBRYOLOGY (12hrs)

1. Introduction: History and Importance of Embryology.
2. Anther structure, Microsporogenesis and development of male gametophyte.
3. Ovule structure and types; Megasporogenesis; 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.

Suggested Reading

1. The embryology of angiosperms - Bhojwani S.S., Bhatnagar S.P. - Vikas publishing house private Ltd, New Delhi.

2. An introduction to the embryology of angiosperms - Maheswari. P - Tata Mac graw hill company Ltd, New Delhi.

3. Plant physiology - Taiz. L. and E. Zeizer - Sinauer Associates, Inc., publishers. Massachusetts, USA.

4. Introduction to Plant physiology - Hopkins - John Wiley and sons lnc., New York, USA.

5. Plant physiology - Salisbury. F.B. and C.W. Ross - Wordsworth Learning lnc., USA.

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

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BOTANY	BOT- 401	w.e.f. 2018-19	B. Sc. (BZC)

II B. Sc – BOTANY Model Question Paper

Paper Code: BOT - 401 **SEMESTER- IV**

PAPER-IV*:* Plant Embryology and Plant Metabolism

Time: 3 Hours Max. Marks: 75

Pass Mark: 30

(*Draw diagrams wherever necessary*)

SECTION-A (Short Answer Questions)

Answer any **five** of the following questions **5x5=25Marks**

1. Microsporogenesis.
2. Allogamy.
3. Helobial endosperm.
4. Emerson enhancement effect.
5. Anaerobic respiration.
6. Ethylene.
7. Photoperiodism.
8. Phytochrome.

SECTION-B

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

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. W rite 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. 2018-19

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
	5		5		
	(5 X 5) = 25		(5 X 10) = 50		75

[**INTERNAL EXAMS - 25Marks**

(15 marks for unit tests, **5** marks for assignments 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. 2018-19

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. 2018-19)

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

Plant Embryology and Plant Metabolism

External Marks: 25 **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 marks for external exam …… 25M

Practical – IV **Scheme of valuation** **(BOT-401P)**

1. 'A' –Physiology –major experiment
   Setting and conducting of the experiment 6M
   Procedure 3M
   Conclusion and tabulation .....2M = 11M
2. 'B'- Physiology –minor experiment
   Salient features 3M
   Diagram .....2M = 05M
3. 'C' from Anther T.S / Pollen grains. ..... = 03M
   'D' - Slide from types of Ovules. ..... = 03M
   'E'– Slide from Embryosacs / Embryos. ..... = 03M
   (Identification - 1 + Diagram-1 + Notes- 1 =Total = 3marks for each)
   (**Total marks for external exam** …… **25M)**

Internal:

a) Record 10M
b) Internal Practical Exam/ Self study project report. 05M
c) Attendance 05M
d) Viva 05M

Grand Total 50M

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BOTANY	BOT-501	2018-19	B.Sc. (BZC)

PAPER – V **SEMESTER-V (**2018-19**)**

Cell Biology, Genetics and Plant Breeding Credits:03

Total Hours of teaching 60 hrs @ 6 hrs for Week

UNIT-I Cell Biology

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

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

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

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

UNIT-V Plant Breeding

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 BOT-501

Time: 3 Hours **Max. Marks:75**

SECTION-A

Answer any five of the following question **5x5=25M**

1.
2.
3.
4.
5.
6.
7.
8.

SECTION-B

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

9.
10.
11.
12.
13.
14.
15.
16.

Guide lines for paper setter: (for Paper V-BOT-501) W.e.f. 2018-19

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
	5		5		
		(5 x 5) = 25		(5 x 10) = 50	75

INTERNAL EXAMS - 25Marks

(20 marks for unit tests, **5** marks for assignments 5marks for Attendance **5** marks for seminar remaining 5 marks for Objective type quections)

III B.SC-BOTANY Practical paper

Cell Biology, Genetics and Plant Breeding

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

Time :3hrs Max.marks:50

Total hours of teaching 30hrs @ 2 hrs per week

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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…….....12marks
2. Give the experimental protocol of the experiments. B……..4M
3. Solving numerical problems on Mendelian in heritance. C.D 2x71\2=15 marks
4. Record……5marks.

Viva……4marks.

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 …….4M

   Procedure…….……4M

   diagram ……2M =10

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

3. Genetic problem C, D

   Salvation of problem…… 5M

   Reasoning…….2M

   2X71\2=15M

   Viva …….4M

Internal:

a) Record……5 M.

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	2018-19	B.Sc. (BZC)

SEMESTER-V (2017-2018) **PAPER – VI**

PLANT ECOLOGY & PHYTOGEOGRAPHY Credits-03

Total Hours of teaching 60 hrs @ 6 hrs for Week

UNIT-I.ELEMENTS OF ECOLOGY

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

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.

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

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

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 BOT-601

Time: 3 Hours Paper VII C (el) Max. Marks:75

SECTION-A

Answer any five of the following question 5x5=25M

1.
2.
3.
4.
5.
6.
7.
8.

SECTION-B

Answer any FIVE of the following questions 5x10=50M

9.
10.
11.
12.
13.
14.
15.
16.

Guide lines for paper setter: (for Paper V-BOT-501) W.e.f. 2018-19

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
	5		5		
	(5 x 5) = 25		(5 x 10) = 50		75

INTERNAL EXAMS - 25Marks

(15 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

Books for Reference:

1. Daubenmire, R.F. ( ): Plants & Environment (2nd Edn.,) John Wiley & Sons., New York22

2. Puri, .G.S. (1960): Indian Forest Ecology (Vol.I & II) Oxford Book Co., New Delhi &Calcutta.

3. Billings, W.B. (1965): Plants and the Ecosystem Wadsworth Publishing Co., Inc., Belmont.

4. Misra, R. (1968): The Ecology work Book Oxford & INH Publishing Co., Calcutta

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BOTANY	BOT-601(GE)	2018-19	B.Sc. (BZC)

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

Plant tissue culture and its biotechnological applications

Total hours of teaching 60hrs @ 6 hrs 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. Methodology - sterilization (physical and chemical methods), culture media, Murashige and Skoog's (MS medium), phytohormones, medium for micro-propagation/clonal propagation of ornamental and horticulturally important plants.

3. Callus subculture maintenance, growth measurements, morphogenesis in callus culture – Organogenesis, somatic embryogenesis.

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

1. Endosperm culture – Embryo culture -culture requirements – applications, embryo rescue technique.
2. Production of secondary metabolites.
3. Cryopreservation; Germ plasm conservation.

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

1. Restriction Endonucleases (history, types I-IV, biological role and application); concepts of restriction mapping.
2. Cloning Vectors: Prokaryotic (pUC 18, 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)
4. Construction of genomic and cDNA libraries, screening DNA libraries to obtain gene of interest by complementation technique, colony hybridization.

Unit IV: Methods of gene transfer (12hrs)

1. Methods of gene transfer- Agrobacterium-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); Improved horticultural varieties (Moon dust carnations).

Guide lines for paper setter: (for Paper VII -BOT-601) W.e.f. 2018-19.

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
	5		5		
	(5 x 5) = 25		(5 x 10) = 50		75

INTERNAL EXAMS - 25Marks

(15 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.

Practical Paper VII-C

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 (3x3)……..…...09 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……06M

Q 4. Field report…… ...03M

Total…… **30 Marks**

Internal Assessment

a. Record - ……..….05M
b. Attendance……05M
e. Internal practical exam……..10M

Total…… **20Marks**

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

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.

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III-BZC B. Sc	BOTANY-VIII	BOT-602 (CE)	2018-19

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. c) Alcoholic beverages Through ages.
2 Fruits and nuts: Important fruit crops their commercial importance.
Wood, fiber and their uses.

B.Sc – BOTANY

SEMESTER-VI: THEORY MODEL PAPER BOT- 602 (CE)

Time: 3 Hours **Max. Marks:75**

SECTION-A (Short Answer Questions)

Answer any five of the following question **5x5=25M**

1.
2.
3.
4.
5.
6.
7.
8.

SECTION-B (Essay Questions)

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

9.
10.
11.
12.
13.
14.
15.
16.

INTERNAL EXAMS - 25Marks

(20 marks for unit tests, **5** marks for assignments 5marks for Attendance **5** marks for seminar remaining 5 marks for Objective type quections.)

Guide lines for paper setter: (for Paper VIII -BOT-602) W.e.f. 2018-19

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
	5		5		
	(5 x 5) = 25		(5 x 10) = 50		75

INTERNAL EXAMS - 25Marks

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

Paper – VIII-A-1: Practical's:

PLANT DIVERSITY AND HUMAN WELFARE

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

ime: 3hrs Max. Marks: 50

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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 ……...3x3 = 09 marks**

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

V. Viva-Voce ……**04marks**

Total……..… 30 **Marks**

Internals

a. Record - ……..….05M
b. Attendance……05M
c. Internal practical exam……..10M

Total…… **20 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

Paper – VIII-A-1: Practical's:

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 …….3x3= 09 marks**

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

V. Viva-Voce ……**4marks**

Total ---- 30marks

Internals:

a. Record - ……..….05M
b. Attendance……05M
c. Internal practical exam……..10M

Total ---- 20marks

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

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.

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III. BZC (B. Sc)	BOTANY-VIII	BOT- 603 (CE)	2018-19

Paper – VIII-A-2 Credits: 3

ETHNOBOTANY AND MEDICINAL BOTANY

Total hours of teaching 60hrs @ 6hrs per week

Unit –I: Ethnobotany (12hrs)

1. Introduction, concept, scope and objectives
2. Major and minor ethnic groups or Tribals of India, and their lifestyles.
3. Plants used by the tribal populations:
   a) Food plants, b) intoxicants and beverages,
   c) 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; *Rauvolfiasepentina*, *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. Role of ethnic groups in the conservation of plant genetic resources.

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.

B.Sc – BOTANY

SEMESTER-VI: THEORY MODEL PAPER BOT-VIII-603-A- 2(CL)

Time: 3 Hours **Max. Marks:75**

SECTION-A

Answer any five of the following question. **5x5=25M**

1.
2.
3.
4.
5.
6.
7.
8.

SECTION-B

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

9.
10.
11.
12.
13.
14.
15.
16.

INTERNAL EXAMS - 25Marks

(20 marks for unit tests, **5** marks for assignments 5marks for Attendance **5** marks for seminar remaining 5 marks for Objective type quections.)

Guide lines for paper setter: (for Paper VIII-BOT-603(CE)) W.e.f. 2018-19

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
	5		5		
	(5 x 5) = 25		(5 x 10) = 50		75

INTERNAL EXAMS - 25Marks (15 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……. 3x3= 09 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…… **30Marks**

Internals

a. Record - ……..….05M
b. Attendance……05M
c. Internal practical exam……..10M

Total…… **20 Marks**

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

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.

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

A.G & S.G. Siddhartha Degree College of Arts & Science
An Autonomous College in the Jurisdiction of Krishna University

III-BZC B.Sc	BOTANY-VIII	BOT-604- (CE)	2018-19

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)R*auwolfia serpentina*(root) d)*Zinziberofficinalis* e)C*atharanthusroseus.*

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.
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.

B.Sc – BOTANY

SEMESTER-VI: THEORY MODEL PAPER BOT-604-A- 3(CL)

Time: 3 Hours **Max. Marks:75**

SECTION-A

Answer any five of the following question **5x5=25M**

1.
2.
3.
4.
5.
6.
7.
8.

SECTION-B

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

9.
10.
11.
12.
13.
14.
15.
16.

INTERNAL EXAMS - 25Marks

(20 marks for unit tests, **5** marks for assignments 5marks for Attendance **5** marks for seminar remaining 5 marks for Objective type quections.)

Guide lines for paper setter: (for Paper VI-BOT-604) W.e.f. 2018-19.

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
	5		5		
	(5 x 5) = 25		(5 x 10) = 50		75

INTERNAL EXAMS - 25Mark

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

Pharmacognosy and Phytochemistry

SEMESTER- VI BOT-VIII-604-A- 3 (CL)P

Time: 3 Hours 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 – Aloes,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 morphological study and chemical tests……..…..**2X5 = 10marks**

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

III. Comment on D and E ……..….**2x3= 06 marks**

IV. Herbarium and submission of drugs **-…….….5 marks**

IV. Viva-Voce ……...**04 marks**

Total…… **30Marks**

Internals

a. Record - ……..….05M

b. Attendance……05M

c. Internal practical exam……..10M

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.

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.

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

DEPARTMENT OF CHEMISTRY

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

Minutes of the 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 10.30 A.M on 11-04-2018 in the Department of Chemistry.

Smt A.INDIRA Presiding

Members Present:

1)..... (Smt.A.INDIRA)	Chairman	Head, Department of Chemistry A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
2)..... (Prof.B.Venkateswara Rao)	University Nominee	Professor, Department of Chemistry, Andhra University, Vizag.
3)..... (Dr.K.A.Rama Raju)	Academic Council Nominee	Associate Professor in Chemistry, Sir C.R.Reddy College, Eluru.
4)..... (Dr.M.Sivanadh)	Academic Council Nominee	Associate Professor in Chemistry, A.N.R.College Gudivada.
5)..... (Sri.J.Nageswara Rao)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
6)..... (Sri.K.Ramesh)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
7)..... (Smt.B.Navaneeta)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
8)..... (Smt.M.V.Santhi)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
9)..... (Sri. G.Ramesh)	Member	Lecturer in Chemistry, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.

Agenda for B.O.S Meeting

1 .To recommend the syllabus and model paper for I and II semesters of I Degree B.Sc., Chemistry for the Academic year 2018-2019.

2. To recommend the syllabus and model papers for III and IV semesters of II Degree B.Sc., Chemistry for the Academic year 2018-2019.

3. To recommend the syllabus and model papers for V and VI semesters of III Degree B.Sc. Chemistry for the Academic year 2018-19.

4.To recommend the Blue print of I,II,III,IV,V & VI semesters of B.Sc. Chemistry for the Academic year 2018-19.

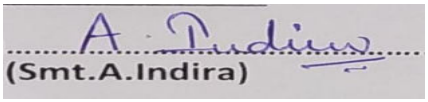
5. To recommend the Guidelines to be followed by the question paper setters in Chemistry for I, II, III, IV, V & VI Semester – end exams.

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 same **syllabus and modified model paper for I &II semesters of I B.Sc.** under Choice Based Credit System (CBCS) for the Academic year 2018-19 also.

2) It is resolved to implement the changed syllabus **and model papers** under Choice Based Credit System (CBCS) for the Academic year 2018-19 for **III and 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 2017-18 for the Academic year 2018-19 for **V and VI semesters (**General elective-A and cluster Elective-C**) of III B.Sc. Project work for VI Semester Studentswith code CHE 604 CEP.**

- It Resolved to add the topic gas chromatography in Vth unit of semester VI of 601 GE-Analytical methods in chemistry.

4) It is resolved to follow the **Blue prints** of I, II, semesters of Degree B.Sc. for the Academic year 2018-19. It is resolved to continue the same **Blue prints** of III, IV, V and VI semesters of Degree B.Sc. for the Academic year 2018-19.

5) It is resolved to follow the same guidelines to be followed by the question paper setters for Chemistry I, 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 2018-19.

6) It is resolved to continue the following teaching and evalution methods for Academic year 2018-19.

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

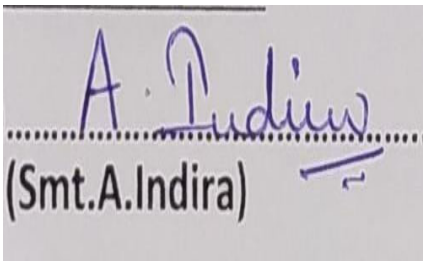
Zero marks the external marks are considered (if the candidate gets 40/70) and the result shall be declared as "PASS".

- 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.**

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.

1) 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 **"Basic Segments of Environmental Chemistry".**

8) NIL.



Chairman

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU
(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2018-19

SEMESTER-I	PAPER CODE : CHE-101C
PAPER TITLE : INORGANIC & ORGANIC CHEMISTRY, PAPER – I	

INORGANIC CHEMISTRY

TOTAL PEROIDS - 60 (4hrs/week) **Credits - 3**

UNIT –I Weightage 10+10+5

p-block elements –I **15h**

Group-13: Synthesis and structure of diborane and higher boranes (B_4H_{10} and B_5H_9)**,** boron-nitrogen compounds ($B_3N_3H_6$ and BN)
Group - 14: Preparation and applications of silanes and silicones.
Group - 15: Preparation and reactions of hydrazine, hydroxylamine.

UNIT-II Weightage 10+5

1. p-block elements -II **8h**

Group - 16: Classifications of oxides based on (i) Chemical behaviour and (ii) Oxygen content.
Group-17: Inter halogen compounds and pseudo halogens.

2. Organometallic Chemistry 10+5 **7h**

Definition - classification of Organometallic compounds - nomenclature, preparation, properties and applications of alkyls of Li and Mg.

ORGANIC CHEMISTRY

UNIT-III Weightage 10+ 10 +5

Structural theory in Organic Chemistry **10 h**

Types of bond fission and organic reagents (Electrophilic, Nucleophilic, and free radical reagents including neutral molecules like H_2O,NH_3& $AlCl_3$).
Bond polarization : Factors influencing the polarization of covalent bonds, electro negativity - inductive effect. Application of inductive effect (a) Basicity of amines (b) Acidity of carboxylic acids (c) Stability of carbonium ions. Resonance or Mesomeric effect, application to (a) acidity of phenol, and (b) acidity of carboxylic acids. Hyper conjugation and its application to stability of carbonium ions, Free radicals and alkenes, carbanions, carbenes and nitrenes.
Types of Organic reactions : Addition - electrophilic, nucleophilic and free radical. Substitution - electrophilic, nucleophilic and free radical. Elimination- Examp

UNIT-IV Weightage 5+5

l. **Acyclic Hydrocarbons** **6 h**

Alkenes - Preparation of alkenes. Properties: Addition of hydrogen - heat of hydrogenation and stability of alkenes. Addition of halogen and its mechanism. Addition of HX, Markonikov's rule, addition of H_2O, HOX, H_2SO_4 with mechanism and addition of HBr in the presence of peroxide (anti - Markonikov's addition). Dienes - Types of dienes, reactions of conjugated dienes - 1,2 and 1,4 addition of HBr to 1,3 - butadiene and Diel's - Alder reaction.

Alkynes - Preparation by dehydrohalogenation of dihalides, dehalogenation of tetrahalides, Properties; Acidity of acetylenic hydrogen (formation of Metal acetylides). Preparation of higher acetylenes, Metal ammonia reductions, Physical properties. Chemical reactivity - electrophilic addition of X_2, HX, H_2O (Tautomerism), Oxidation with $KMnO_4$, OsO_4, reduction and Polymerisation reaction of acetylene.

2. **Alicyclic hydrocarbons (Cycloalkanes) Weightage 10** **4h**

Nomenclature, Preparation by Freunds method, Wislicenus method. Properties - reactivity of cyclopropane and cyclobutane by comparing with alkanes, Stability of cycloalkanes - Baeyer's strain theory, Sachse and Mohr predictions and Pitzer's strain theory. Conformational structures of cyclobutane, cyclopentane, cyclohexane.

UNIT-V Weightage 10+5

Benzene and its reactivity **10h**

Concept of resonance, resonance energy. Heat of hydrogenation, heat of combustion of Benzene, mention of C-C bond lengths and orbital picture of Benzene. Concept of aromaticity - aromaticity (definition), Huckel's rule - application to Benzenoid (Benzene, Naphthalene) and Non - Benzenoid compounds (cyclopropenyl cation, cyclopentadienyl anion and tropylium cation)

Reactions - General mechanism of electrophilic substitution, mechanism of nitration, Friedel Craft's alkylation and acylation. Orientation of aromatic substitution - Definition of 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)

List of Reference Books

1. Inorganic Chemistry by J.E.Huheey
2. Basic Inorganic Chemistry by Cotton and Wilkinson
3.A textbook of qualitative inorganic an

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

ACADEMIC YEAR-2018-19

SEMESTER - I	PAPER CODE : CHE-101C
PAPER TITLE : INORGANIC AND ORGANIC 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=20

1. **Write any two preparations and two properties of Hydrazine ?**
2. **Write a short note on Ferrocene ?**
3. **How are oxides classified on the basis of Chemical behaviour?**
4. **What is Mesomeric effect? Explain acidity of carboxylic acids ?**
5. **Write any two preparation methods of Alkenes?**
6. **Explain about Diel's-Alder reaction with one example?**
7. **Explain about reaction and mechanism of Nitration of benzene?**

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

8. **Explain about preparations,structure and properties of Borazole ?**
9. **What are silicones ? How they are classified? Write any two methods of preparation of silicones?**
10. **What are Inter Halogen Compounds? Write the structures of AX_3,AX_5?**
11. **What is Grignard reagent ? write any five synthetic applications?**
12. **Write about Hyper conjugation and Resonance effect with each one example?**
13. **Explain the following a. Carbenes b. Nitrenes**
14. **Write the conformational structures of Cyclobutane, Cyclopentane?**
15. **Define orientation effect? What are ortho ,meta,para directing groups?**

The Guidelines to be followed by the question paper setters in chemistry for the I-Semester - end exams ACADEMIC YEAR-2018-19

SEMESTER-I	PAPER CODE : CHE-101C
PAPER TITLE : INORGANIC & ORGANIC 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 (30 Marks)	1+1	1 + 1
Unit-3 (25 Marks)	1	1 + 1
Unit-4 (20Marks)	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-2018-19

Simple Salt Analysis	PAPER CODE : CHE-101P

Simple Salt Analysis

(At the end of Semester-I) **30 hrs (2h / w)** **Credits: 2**

Analysis of simple salt containing one anion and cation from the following

Anions: **Carbonate, sulphate, chloride, bromide, acetate, nitrate, 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**

A.G.&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU

(Accredited at 'A'Grade by NAAC, Bangalore)

Simple Salt Analysis	**COURSE CODE : CHE-101 P**

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) ACADEMIC YEAR-2018-19

SEMESTER - II	PAPER CODE :CHE-201C
PAPER TITLE : PHYSICAL AND GENERAL CHEMISTRY, PAPER- II	

PHYSICAL CHEMISTRY

UNIT-I **Total Periods - 60 (4hrs/week)** **Credits-3**

Solid state
Marks weightage (10+5+5) **l0h**

Symmetry in crystals. Law of constancy of interfacial angles. The law of rationality of indices. The law of symmetry. Definition of lattice point, space lattice, unit cell. Bravis lattices and crystal systems. X-ray diffraction and crystal structure. Bragg's law. Defects in crystals. Stoichiometric and non-stoichiometric defects.

UNIT-II

1. Gaseous state
Marks weightage (10+5) **6h**

Compression factors, deviation of real gases from ideal behavior. Vander Waal's equation of state. P-V Isotherms of real gases, Andrew's isotherms of carbon dioxide, continuity of state. Critical phenomena. The Vander Waal's equation and the critical state. Law of corresponding states. Relationship between critical constants and Vander Waal's constants. Joule Thomson effect.

2.Liquid state
Marks weightage (10) **4 h**

Structural differences between solids, liquids and gases. Liquid crystals, the mesomorphic state. Classification of liquid crystals into Smectic and Nematic. Differences between liquid crystal and solid/liquid. Application of liquid crystals as LCD devices.

UNIT-III

Solutions
Marks weightage (10+10+5) **l0h**

Liquid-liquid - ideal solutions, Raoult's law. Ideally dilute solutions, Henry's law. Non-ideal solutions. Vapour pressure - composition and vapour pressure- temperature curves. Azeotropes-HCl-H_2O, ethanol-water systems and fractional distillation. Partially miscible liquids-phenol-water, trimethylamine-water, nicotine-water systems. Effect of impurity on consulate temperature. Immiscible liquids and steam distillation. Nernst distribution law. Calculation of the partition coefficient. Applications of distribution law.

GENERAL CHEMISTRY

UNIT-IV

l. Surface chemistry **Marks weightage (10)** **8h**

Definition of colloids. Solids in liquids(sols), preparation, purification, properties - kinetic, optical, electrical. Stability of colloids, Hardy-Schulze law, protective colloid. Liquids in liquids (emulsions) preparation, properties, uses. Liquids in solids (gels) preparation,uses.

Adsorption: Physical adsorption, chemisorption. Freundlisch, Langmuir adsorption isotherms. Applications of adsorption

2. Chemical Bonding **Marks weightage (10+5)** **7h**

Valence bond theory, hybridization, VB theory as applied toClF_3**,** $Ni(CO)_4$**,** Molecular orbital theory - LCAO method, construction of M.O. diagrams for homonuclear and hetero-nuclear diatomic molecules (N_2, O_2, CO and NO).

UNIT-V

Stereochemistry of carbon compounds **Marks weightage (10+5+5)** **15h**

Molecular representations- Wedge, Fischer, Newman and Saw-Horse formulae. Optical isomerism: Optical activity- wave nature of light, plane polarised 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.

List of Reference Books

1. Principles of physical chemistry by Prutton and Marron
2. Solid State Chemistry and its applications by Anthony R. West
3. Text book of physical chemistry by K L Kapoor
4. Text book of physical chemistry by S Glasstone
5. Stereochemistry of Organic compounds by E L Eliel
6. Advanced Organic Chemistry by F A Carey and R J Sundberg
7. Stereochemistry by P.S.Kalsi
8. Stereochemistry of Organic compounds by D. Nasipuri
9. Advanced physical chemistry by Bahl and Tuli
10. Advanced Inorganic Chemistry Vol-I by Satyaprakash, Tuli, Basu and Madan

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

ACADEMIC YEAR-2018-19

SEMESTER – II	COURSE CODE : CHE-201C
PAPER TITLE : PHYSICAL 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=20

1.Define and explain space lattice and unit cell.?

2.Define law of symmetry? Explain about centre of symmetry?

3.Define critical constants?

4.Define Henry's law and their limitations?

5.Define and explain Bond order?

6.Explain about symmetry elements?

7.Explain about Specific rotation?

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

8.Derive Bragg's equation?

9.Derive Vanderwaal's equation of real gases.?

10.Write the differences between Solids and Liquids?

11.Define Nernst distribution law and their limitations. Explain two applications of distribution law/

12.Explain about Fractional distillation and steam distillation

13. Explain Langmuir adsorption isotherms.

14. Explain the shape of $Ni(CO)_4$ based on valence bond theory

15.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-2018-19

SEMESTER – II	PAPER CODE : CHE-201C
PAPER TITLE : PHYSICAL AND GENERAL CHEMISTRY, PAPER - II	

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (20 Marks)	1 + 1	1
Unit-2 (25 Marks)	1	1 + 1
Unit-3 (25Marks)	1	1 + 1
Unit-4 (25 Marks)	1	1 + 1
Unit-5 (20 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.**

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PRACTICAL SYLLABUS ACADEMIC YEAR-2018-19

Analysis of Salt mixture	**PAPER CODE : CHE-201P**

30 hrs (2 h / w) Credits: 2

Qualitative inorganic analysis:

Analysis of mixture salt containing two anions and two cations (From two different groups) from the following:

Anions: **Carbonate, sulphate, chloride, bromide, acetate, nitrate, borate, phosphate.**

Cations: Lead, copper, iron, aluminum, zinc, manganese, calcium, strontium, barium, Potassium and ammonium.

1. **Analysis of salt mixture-I**
2. **Analysis of salt mixture -II**
3. **Analysis of salt mixture-III**
4. **Analysis of salt mixture -IV**
5. **Analysis of salt mixture -V**
6. **Analysis of salt mixture-VI**

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU
(Accredited at "A" Grade by NAAC, Bangalore) ACADEMIC YEAR-2018-19

Analysis of Salt mixture	**PAPER CODE : CHE-201P**

SCHEME OF VALUATION

INTERNAL MARKS

- Record =10 M

EXTERNAL MARKS (40 marks)

- Viva…..... 10M

- PRACTICAL EXAMINATION -30M
  - Identification of anion.....6 M
  - Confirmation test for anion.....6M
  - Group separation table with correct group ..... 10 M
  - Confirmation test for cation.....6 M
  - Report .....2 M

TOTAL=50 M

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SEMESTER – III	**SUBJECT: CHEMISTRY**	**PAPER CODE: CHE-301C**
PAPER TITLE : INORGANIC & ORGANIC CHEMISTRY, PAPER - III		

INORGANIC CHEMISTRY

60 hrs (4 h / w) Credits - 3

UNIT – I

1. Chemistry of d-block elements (Marks-Weightage – 10 + 5) (6 hrs)

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. Theories of bonding in metals: (Marks-Weightage – 10) (6 hrs)

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

3.Metal carbonyls and related compounds: (Marks-Weightage – 5) (4 hrs)

EAN rule, classification of metal carbonyls, structures and shapes of metal carbonyls of V, Cr, Mn, Fe, Co and Ni.

4. Chemistry of f-block elements: (Marks-Weightage – 10 + 5) (6 hrs)

Chemistry of lanthanides - electronic structure, oxidation states, lanthanide contraction, consequences of lanthanide contraction, magnetic properties. Chemistry of actinides - electronic configuration, oxidation states, actinide contraction, comparison of lanthanides and actinides.

ORGANIC CHEMISTRY

UNIT – III

1. Halogen compounds (Marks-Weightage – 10) (7 hrs)

Nomenclature and classification of alkyl (into primary, secondary, tertiary), aryl, aryl alkyl, allyl, vinyl, benzyl halides.

Nucleophilic aliphatic substitution reaction- classification into SN^1 and SN^2 – reaction mechanism with examples – Ethyl chloride, t-butyl chloride and optically active alkyl halide 2-bromobutane.

2. Hydroxy compounds (Marks-Weightage – 10+5 + 5) (7 hrs)

Nomenclature and classification of hydroxy compounds.

Alcohols: Preparation with hydroboration reaction, Grignard synthesis of alcohols.

Phenols: Preparation i) from diazonium salt, ii) from aryl sulphonates, iii) from cumene.

Physical properties- Hydrogen bonding (intermolecular and intramolecular).
Effect of hydrogen bonding on boiling point and solubility in water.
Identification of alcohols by oxidation with $KMnO_4$, Ceric ammonium nitrate, lucas reagent and phenols by reaction with $FeCl_3$.

Chemical properties:
a) Dehydration of alcohols.
b) Oxidation of alcohols by CrO_3, $KMnO_4$.
c) Special reaction of phePhenols: Bromination, Kolbe-Schmidt reaction, Riemer-Tiemann reaction, Fries rearrangement, azocoupling, Pinacol-Pinacolone rearrangement.

UNIT-IV

Carbonyl compounds **(Marks-Weightage – 10 + 5)** **(10 hrs)**

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-V

1. Carboxylic acids and derivatives **(Marks-Weightage – 10 + 5)** **(8 hrs)**

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 (Marks-Weightage – 10 + 5) (6 hrs)
Acetoacetic esters: keto-enol tautomerism, preparation by Claisen condensation, Acid hydrolysis 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 of
a) 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.

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

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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.

2.

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8.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

9.

10.

11.

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13.

14.

15.

16.

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.**

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Titrimetric analysis & Reactions of organic compounds	**PAPER CODE : CHE-301 P**

PRACTICAL SYLLABUS

(At the end of Semester-III) **30 hrs. (2h / w), Credits-2**

I. Titrimetric analysis:

1. Determination of Fe (II) using $KMnO_4$ with oxalic acid as primary standard.
2. Determination of Cu (II) using $Na_2S_2O_3$ with $K_2Cr_2O_7$ as primary standard.

II. Organic Functional Group Reactions

Reactions of the following functional groups present in organic compounds
(At least four) Alcohols, Phenols, Aldehydes, Ketones, Carboxylic acids and Amides

SCHEME OF VALUATION

1. INTERNAL MARKS-Record-10M
2. EXTERNAL MARKS-40
   - Titrimetric analysis-30M
   - Viva questions = 10 M

TOTAL = 50 M

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SEMESTER – IV	SUBJECT: CHEMISTRY	PAPER CODE: CHE-401C
PAPER TITLE :	SPECTROSCOPY & PHYSICAL CHEMISTRY, PAPER-IV	

60 hrs(4h/w) Credits-3

SPECTROSCOPY

UNIT- I **(10+5)marks** **6h**

Spectrophotometry

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

Electronic spectroscopy: (10+5)marks 8h

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

Infra red spectroscopy (10)marks 8h

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.

Proton magnetic resonance spectroscopy (1H-NMR) (10+5)marks 8h

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

Dilute solutions (10+5) marks 10h

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 and depression of freezing point. Derivation of relation between molecular weight and elevation in boiling point and depression in freezing point. Experimental methods –Cottrell's and Beckmann's method.
Osmosis,osmotic pressure, experimental determination. Theory of dilute solutions. Determination of molecular weight of non-volatile solute from osmotic pressure. Abnormal Colligative properties- Van't Hoff factor.

UNIT-IV

Electrochemistry-I (10+5+5) marks 10h

Specific conductance, equivalent conductance. Variation of equivalent conductance with dilution. Migration of ions, Kohlrausch's law. 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. Application of conductivity measurements- conductometric titrations.

UNIT-V

1.Electrochemistry- II (10+5)marks 4h

Single electrode potential, sign convention, Reversible and irreversible cells Nernst Equation- Reference electrode, Standard Hydrogen electrode, calomel electrode, Indicator electrode, metal – metal ion electrode, Inert electrode, Determination of EMF of cell, Applications of EMF measurements - Potentiometric titrations.

2. Phase rule (10+5) marks 6h

Concept of phase, components, degree of freedom. Derivation of Gibbs phase rule. Phase equilibrium of one component - water system. Phase equilibrium of two- component system, solid-liquid equilibrium. Simple eutectic diagram of Pb-Ag 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)

List of Reference Books

1. Spectroscopy by William Kemp
2. Spectroscopy by Pavia
3. Organic Spectroscopy by J. R. Dyer
4. Modern Electrochemistry by J.O. M. Bockris and A.K.N.Reddy

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SEMESTER – IV	**PAPER CODE : CHE-401C**
PAPER TITLE : SPECTROSCOPY AND PHYSICAL CHEMISTRY, PAPER-IV	

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.

10.

11.

12.

13.

14.

15.

16

The Guidelines to be followed by the question paper setters in chemistry for the IV-Semester - end exams

SEMESTER – IV	**SUBJECT: CHEMISTRY**	**PAPER CODE: CHE-401C**
PAPER TITLE :	**SPECTROSCOPY & PHYSICAL CHEMISTRY, PAPER-IV**	

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (40 Marks)	1 + 1	1 + 1
Unit-2 (15 Marks)	1	1 + 1
Unit-3 (15 Marks)	1	1
Unit-4 (20 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.

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PRACTICAL SYLLABUS

Physical Chemistry and IR Spectral Analysis	PAPER CODE : CHE - 401 P

30 hrs (2h /w) Credits-2

Physical Chemistry

1. Critical Solution Temperature of Phenol – water system
2. Determination of concentration of NaCl by CST method.
3. Determination of concentration of HCl conductometrically using standard NaOH solution.
4. Determination of concentration of acetic acid conductometrically using standard NaOH Solution.

IR Spectral Analysis

5. 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 (Project work)

Total marks =50

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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

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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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SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

9.

10.

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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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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.

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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.

3.

4.

5.

6.

7.

8.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

9.

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15.

16.

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.

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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 (AUTONOMOUS), VUYYURU.

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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+10+5+5) **15h**

a) Importance in various fields of science, steps involved in chemical analysis**.** Principles 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 and counter current extraction. Synergism. Application - Determination of Iron (III), organic mixture analysis.

ION EXCHANGE: Introduction, action of ion exchange resins, separation of inorganic mixtures, applications,

UNIT – IV **12h**

Chromatography(10+5+5)

Classification of chromatography methods, principles of differential migration adsorption phenomenon, Nature of adsorbents, solvent systems, R_f values, factors effecting R_f values.

Paper Chromatography: Principles, R_f values, 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): Advantages. Principles, factors effecting R_f values. 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 principles 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

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

SEMESTER – VI	**PAPER CODE : CHE-601GE**
PAPER TITLE : ANALYTICAL METHODS IN CHEMISTRY, **PAPER-VII**	

Time: 3Hours **Maximum marks: 75** **Pass marks: 30**

SECTION-A

Answer any FIVE of the following. Each question carries 5 marks. 5X5=25

1. What are co-precipitation and post-precipitation?

2. Write a short note on coagulation and peptization ?

3. What are significant figures ? Explain their importance?

4.Write the applications of solvent extraction

5.

6.

7.

8.

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

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15.

16.

The Guidelines to be followed by the question paper setters in chemistry for the VI- Semester - end exams

SEMESTER – VI	**PAPER CODE : CHE-601GE**
PAPER TITLE : ANALYTICAL METHODS IN CHEMISTRY, PAPER-VII	

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 (15 Marks)	1	1
Unit-3 (25 Marks)	1	1+1
Unit-4 (20 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**
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PRACTICAL SYLLABUS

Paper title: Chromatography & Volumetric analysis	**Paper code : CHE-601GE-P**

Marks:50 30hrs (2 h /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.

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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+5) 15h

Nuclear spin, Principles of NMR-Classical and Quantum Mechanical methods, Larmour Frequency. Instrumentation. Saturation, Relaxation spin-spin & spin lattice relaxation. Chemical shifts, Shielding and Deshielding mechanism-Factors influencing Chemical shift.

UNIT – II (10+5) 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, AX2 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. Instrumentaion, 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) $H^{\bullet}$ - 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.
Vibrational 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.
8. Instrumental Methods of Chemical Analysis- H.Kaur, Pragathi Prakashan, 2003.
9. Instrumental Methods of Analysis, 7th Edition – Willard, Merrit, Dean, Settle,CBS Publications, 1986.
10. Molecular Structure and Spectroscopy – G. Aruldhas, Prentice Hall of IndiaPvt.Ltd, New Delhi, 2001.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

SEMESTER – VI PAPER-VIII	PAPER CODE : CHE-602CE
PAPER TITLE : ORGANIC SPECTROSCOPIC TECHNIQUES	

Time: 3Hours **Maximum marks: 75** **Pass marks: 30**

SECTION-A

Answer any FIVE of the following. Each question carries 5 marks. 5X5=25

1. **Write about Nuclear spin?**
2. **What is Larmour frequency?**
3. **Write any two types of coupling costant?**
4. **Write about Kramer degeneracy?**
5. **What is isotropic and anisotropic costants?**
6. **Explain Woodward-Fieser rules?**
7. **Write a short note on Auxochrome?**
8. **Define and derive Beer-Lambert's law.**

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

9. **Explain the instrumentation of the NMR?**
10. **Explain Spin-Spin relaxation and spin lattice relaxation.**
11. **Write the types of PMR spectrums of AX,AX2 & AB?**
12. **Explain the instrumentation of the ESR.**
13. **Explain the ESR splitting of a) Deuterium radical b)$[Cu(H_2O)_6]^{+2}$ ion**
14. **Explain the electronic spectra of di atomic molecule.**
15. **Write note on Vibrational coarse structure.**
16. **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

PAPER TITLE: ORGANIC SPECTROSCOPIC TECHNIQUES, PAPER CODE: CHE-602CE

Paper – VIII **Maximum marks : 75** **Duration : 3 Hours**

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (Marks)	1+1	1+1
Unit-2 (Marks)	1	1
Unit-3 (Marks)	1+1	1+1
Unit-4 (Marks)	1+1	1+1
Unit-5 (Marks)	1	1

- **Each Short answer question carries 5 marks in Section –A**
- **Each Essay question carries 10 marks in Section –B**
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(An Autonomous college in the jurisdiction of Krishna University)

SEMESTER – VI	SUBJECT: CHEMISTRY	PAPER CODE:CHE-603CE
PAPER TITLE : ADVANCED ORGANIC REACTIONS,	Cluster Elective Paper – IX	

UNIT – I **60hrs (4h / w) Credits-3**

ORGANIC PHOTOCHEMISTRY (10+10+5) 10hrs

Organic photochemistry : Molecular orbitals, carbonyl chromophore–triplet states, Jablonski diagram, inter–system crossing. Energy transfer.

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 cyclicdiones,
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 dienes, 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+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.
9. Organic Chemistry Claydon and others 2005.
10. Name Reactions by Jie Jack Li
11. Reagents in Organic synthesis by B.P. Mundy and others.
12. Tandem Organic Reactions by Tse–Lok Ho.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.

SEMESTER – VI PAPER-IX	PAPER CODE : CHE-603CE
PAPER TITLE : ADVANCED ORGANIC REACTIONS	

Time: 3Hours **Maximum marks: 75** **Pass marks: 30**

SECTION-A

Answer any FIVE of the following. Each question carries 5 marks. 5X5=25

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?**
8. **Define with one example for Mc Murrey reaction and Stille coupling?**

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

9. **Explain about Jablonski diagram in organic photo chemistry?**
10. **Explain mechanism of photo reduction with examples?**
11. **Explain Norrissch type –I cleavage with mechanism?**
12. **Explain Norrissch type –II cleavage with mechanism?**
13. **Explain how to protect Alcohols?**
14. **Explain how to protect Carboxylic acids?**
15. **What is Mannich reaction? Explain with mechanism and Mannich bases?**
16. **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

PAPER TITLE: ADVANCED ORGANIC REACTIONS, PAPER CODE: CHE-603CE

Paper – IX Semester – VI Maximum marks : 75 Duration : 3 Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (Marks)	1	1+1
Unit-2 (Marks)	1	1+1
Unit-3 (Marks)	1+1	1+1
Unit-4 (Marks)	1+1	1
Unit-5 (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.**

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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**

a. 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)

b. Psycho therapeutic Drugs: **(10+5)**

1. Anti pyretics(Paracetamol) 2.Hypnotics, 3.Tranquilizers(Diazepam) 4.Levodopa

UNIT-IV

Pharmacodynamic Drugs: (10+5+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
6.Medicinal Chemistry by Kadametal P-I & P.II
7.European Pharmacopoeia

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SEMESTER – VI PAPER-X	PAPER CODE : CHE-604CE
PAPER TITLE : PHARMACEUTICAL AND MEDICINAL 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. **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. **Write a note on Frusemide.**
8. **Explain about immunity.**

SECTION-B

Answer any FIVE questions. Each question carries 10 marks. 5X10=50

9. **What are Pharma cokinetics ? Describe Absorption,Distribution,Metabolism and Excretion(ADME)of drug.**
10. **Explain the classification of drugs based on therapeutic activity with examples.**
11. **Describe the nomenclature systems of drugs.**
12. **What are antibiotics ? Give examples. Explain the isolation method of pencillin by submerged culture method.**
13. **.Write the synthesis,therapeutic activity and side effects of Chloroquine.**
14. **Discuss the synthesis and therapeutic activity of Levodopa.**
15. **Explain in detail about antiasthma drugs.**

16. 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

PAPER TITLE: PHARMACEUTICAL AND MEDICINAL CHEMISTRY, PAPER CODE: CHE-604CE

Paper – VIII-C-3 **Semester – VI** **Maximum marks : 75** **Duration : 3 Hours**

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (Marks)	1+1	1
Unit-2 (Marks)	1	1+1
Unit-3 (Marks)	1+1	1+1+1
Unit-4 (Marks)	1+1	1
Unit-5 (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.**

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Practical syllabus

Paper title: Preparations of Organic compounds	Paper code : CHE-602CE-P

30 hrs (2 h / W)

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-40
    - Titrimetric analysis -30
    - Viva-10

TOTAL = 50 M

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU.
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Practical syllabus

Paper title: Preparations of Organic compounds by Green procedure	**Paper code : CHE-603CE-P**

30 hrs (2h / W)

1. Green procedure for organic qualitative analysis: Detection of N, S andhalogens
2. Acetylation of 1o 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
    - 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. Three projects have been selected and distributed the same among the students.

S.no	Name of the Project	No. of students allotted
1.	Instrumentation	
2.	Laboratory Reagents	
3.	Effects of Drugs	

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

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

DEPARTMENT OF COMMERCE

2018-2019

BOARD OF STUDIES

Minutes of Meeting

23-04-2018

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 10-04-2018* in the Department of Commerce.

Sri Dr.K.Venkateswarlu ... *Presiding*

Members Present:

1)..... (Dr.K.Venkateswarlu)	Chairman	Head, Department of Commerce AG & SG S Degree College of Arts & Science Vuyyuru-521165
2)..... (Dr.R.Padmaja)	University Nominee	Asst. Professor Krishna University Machilipatnam
3)..... (Dr.M.Venkateswara rao)	Subject expert	Principal, Sarada P.G College Vijayawada
4)..... (Dr.V. Narayana rao)	Subject expert	Principal, K.B.N College Vijayawada.
5)..... (N.Vasantha Rao)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru-521165
6)..... (V.Gopichand)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru-521165
7)..... (K.SekharBabu)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru-521165
8)..... (A.L.Manohari)	Member	Ad-hoc Lecturer in Commerce AG & SG S Degree College of Arts & Science Vuyyuru-521165

Agenda for B.O.S Meeting

1) .To recommend the syllabus and model paper for I ,& II semesters of I,st Degree B.Com.(general& Computers) for the Academic year 2018-2019

2). To recommend the syllabus and model papers for III and IV semesters of II Degree B.Com., (general & Computer) for the Academic year 2018-2019

3). To recommend the syllabus and model papers for V and VI semesters of III Degree B.Com. (general&Computer) for the Academic year 2018-2019

4). 4).To recommend the Blue print of I,II,III,IV,V & VI semesters of B.Com.,(general Computer)for the Academic year 2018-2019

5). To recommend the Guidelines to be followed by the question paper setters in Commerce for I, II, III,IV,V & VI 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). Any other matter.

Chairman.

RESOLUTIONS

1. It is resolved to continue the same **syllabus for I &II semesters of I B.Com., (general & computer)** under Choice Based Credit System (CBCS) in 2015-16 for the Academic year 2018-2019
2. It is resolved to implement the same syllabus **and model papers** under Choice Based Credit System (CBCS) in 2016-17 for the Academic year 2018-2019 for **III and IV semesters of II B.Com.,(general&computer)**

1) 3. It is resolved to implement the Same **syllabus and model papers** under Choice Based Credit System (CBCS) from this Academic year onwards for **V and VI semesters of III B.Com., (general & computer)**

It is resolved to follow elective for V & VI semesters from the academic year 2017-18.

2) 4. It is resolved to continue the same **Blue prints** of I, II,III,IV,V and VI semesters of Degree **B.Com., (general & computer)** for the Academic year 2018-2019
It is resolved to continue the same **guidelines** to be followed by the question paper setters of Commerce for I,II,III,IV,V and VI semesters of Degree **B.Com., (general & computer)** for the Academic Year 2018-2019
It is resolved to continue the following teaching and evolution methods for Academic year 2018-2019

It is Resolved to Introduce Value Added Program me on Tally for III Sem Students

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, 25 marks shall be allocated for internal assessment for I, II & III **B.Com., (general & computer) (i.e. I,II,III, IV,V, and VI semesters)**. 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.**
- **Semester – End Examination:**
  The maximum marks for I**, II and III B.Com. (General & computer) I.II,III,IV. V & VI** Semester – End examination shall be 75 marks and duration of the examination shall be 3 hours.

3) Discussed and recommended for organizing **certificate course, seminars, Guest lecturers, workshops** to upgrade the knowledge of students, for the approval of the academic council.
4) Nil.

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	2018-2019	*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

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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Commerce	CACC -101G/C C	2018-2019	*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?.

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Commerce	CACC -101G/C C	2018-2019	*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	CBO -102G C	2018-2019	*I.B.Com(gen)*

SEMESTER – I SYLLABUS

Business Organization

Unit-I – Introduction

Concepts of Business, Trade , Industry and Commerce – Features of Business -Trade Classification - Aids to Trade – Industry – Classification – Relationship of Trade, Industry and

Commerce.

Unit II- Business Functions and Entrepreneurship

Functions of Business and their relationship - Factors influencing the choice of suitable form of organization – Meaning of Entrepreneurship – Characteristics of a good entrepreneur - Types – Functions of Entrepreneurship.

Unit –III – Forms of Business Organizations

Sole Proprietorship – Meaning – Characteristics – Advantages and Disadvantages – Partnership - Meaning – Characteristics- Kinds of partners – Advantages and Disadvantages – Partnership Deed – Hindu-undivided Family – Cooperative Societies.

Unit-IV- Joint Stock Company

Joint Stock Company – Meaning – Characteristics –Advantages – Kinds of Companies - Differences between Private Ltd and Public Ltd Companies.

Unit-V- 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.

Reference Books:

1. C.D.Balaji and G. Prasad, Business Organization - Margham Publications, Chennai.

2. R.K.Sharma and Shashi K Gupta, Business Organization - Kalyani Publications

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Commerce	CBO -102G C	2018-2019	*I.B.Com(gen)*

SEMESTER – I

Business Organization

MODEL PAPER

Time: 3 hrs Max. Marks:70

SECTION – A

I. Answer any TWO of the following 2X5=10

1. State the features of Business?

2. Explain the types of Entrepreneurs

3. Write note on 1) Club 2) Trust

4. Explain the features of a Joint stock Company

SECTION – B

II. Answer any FOUR of the following 4X15=60

5. What are the Relationship between Trade, Commerce and Industry?

6. What do you meanby Commerce discuss the advantages and disadvantages of commerce

7. Define Entrepreneurship. Explain theories of Entrepreneurship.

8. Discuss advantages and disadvantages of sole proprietorship

9. Explain the essential characteristics of Joint Hindu Family

10. Give the meaning of Company. Discuss various kinds of Companies

11. What are the differences between Private limited company and Public limited company

12. Distinguish between Memorandum of Association and Articles of Association

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Commerce	CBO -102G C	2018-2019	*I.B.Com(gen)*

SEMESTER – I

Business Organization

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Business Functions and Entrepreneurship	Forms of Business Organizations	Joint Stock Company	Company Incorporation
5 Marks	1	1	1	1	---
15Marks	2	1	2	2	1
Weight age	35	20	35	35	15

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Commerce	CBO-102C C	2018-2019	I B.Com (Comp)

SEMESTER – I

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: Joint Stock Company: 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 and Organization: Process of Management: Planning; Decision-making; Organizing: Line and Staff - Staffing - Directing and Controlling; Delegation and Decentralization of Authority.

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	CBO-102C C	2018-2019	I B.Com (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 the advantages of joint stock company
4. Explain about memorandum of association

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 the characteristics of Joint Stock Company
9. Explain the features of partnership.
10. Explain Advantages and disadvantages of decentralization.
11. Explain the Management principles.
12. Write the functions of marketing management.

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Commerce	CBO -102C C	2018-2019	I B.Com (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
Weightage	20	35	35	35	15

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

(AUTONOMOUS)

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Commerce	CACC -201G/C C	2018-2019	*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 and Depletion (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 (Problems).

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.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

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Commerce	CACC -201G/C C	2018-2019	*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. What is bill of exchange? Explain its advantages briefly?
2. Define Depreciation? State the factors causing depreciation?
3. State the features of Joint Venture?
4. What is Normal loss?

SECTION - B

II.Answer any FOUR of the following 4 X 15= 60

5. Ram draws a bill on Rahim for Rs. 2,000 payable after two months on 01-09-1997 and got the bills accepted. The bill is discounted with the bank at 6%. On the due date the bill is dishonored noting charges Rs. 10. Rahim accepted a new bill for Rs. 2,025 payable after one month. Rahim became bankrupt on the month. Pass the necessary journal entries in the books of Ram and Rahim.

6.On 1st Jan 2004, a Reserve for Doubtful Debts Account shows a credit balance of Rs 16,000. The bad debts during the year Amounts to Rs 10,500.The debts at December 31st 2004 are Rs .3,00,000.and at 5% reserve for doubtful debts is require to be maintained .the bad debts in 2005 amount to Rs 16,250.On December 31st ,2005 the debts are Rs 3,00,000. And at 5% reserve for doubtful debts is required to be kept .the bad debts in 2006.amount to Rs 4,500. On December31, 2006 the debtors are Rs 1,45,000 and at 5% Reserve for doubtful debts is to be maintained. Prepare Bad Debts Account and Reserve for Doubtful debts Account for all the Three Years .

7. 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.

8.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. o.2820. show the lease account for four years and also the relevant entries in the Profit and Loss Account.

9. 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.

10 On 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 March. Show the Machinery account for 3 years ending 31st March 2004.

11. What is meant by Joint venture? What are the differences between a Joint venture and Consignment?

12. What is Consignment? How does it differ from Sale?

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(AUTONOMOUS)

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Commerce	CACC -201G/C C	2018-2019	*I.B.Com(gen/comp)*

SEMESTER – II

Fundamentals of Accounting – II

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Depreciation	Provisions and Reserves	Bills of Exchange	Consignment	Joint venture
5 Marks questions	1	1	1	1	---
15 Marks questions	2P	1P	1P	1T+1P	1T+1P
Weight age	35	20	20	35	30

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
(AUTONOMOUS)

(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	CBEN -202G C	2018-2019	*I.B.Com(gen)*

SEMESTER – II 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 - Leal 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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(AUTONOMOUS)

(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Commerce	CBEN -202G C	2018-2019	*I.B.Com(gen)*

SEMESTER – II

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	Com-BEN -202G C	2018-2019	*I.B.Com(gen)*

SEMESTER – II

Business Enviornment

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

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Commerce	*CCA-301G/C C*	*2018-2019*	*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).

Uni t-II:
Issue and Redemption of Debentures - Employee Stock Options – Accounting Treatment for Convertible and Non-Convertible debentures (preparation of Journal and Ledger).

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 using computers (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
4. Advanced Accountancy: Jain and Narang
5. Advanced Accountancy : R.L. Gupta and M.Radhaswamy, S Chand.

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Commerce	*CCA-301G/C C*	*2018-2019*	*II.B.Com(gen/comp)*

SEMESTER –III

Corporate Accounting

Model Question Paper

Time: 3 hours Max. Marks: 75

SECTION - A

I. Answer any THREE of the following questions 3 x 5 =15M

1. Explain the re-issue of Forfeited shares
2. Explain different types Debentures
3. What are the methods of valuing the shares of a company
4. What are the factors considered while calculating goodwill?
5. Provision for taxation
6. Book building

SECTION - B

II. Answer any FOUR of the following questions 4 x15 =60M

7. Journalize the following transactions at the time of issue and redemption of debentures

(a) A Debenture issued at Rs. 95, repayable at Rs. 100.

(b)A Debenture issued at Rs. 95, repayable at Rs. 105.

(C)A Debenture issued at Rs. 100, repayable at Rs.105.

(d)A Debenture issued at Rs. 105, repayable at Rs. 100.

8. 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.

9. 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

10. The Balance sheet of Deepak LTD. as on 31.03.2004 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. Cacalculate fair value of equity shares/

.

11. The following Trial Balance has been extracted from the book of XYZ LTD .as on 31st march2001. 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)Eqity dividend at 10% on the paid up capital.

(c)Provision for income tax for Rs 4,000.

12. The Balance Sheet of Bajaj LTD .as on 31.3.08 is given below

Liabilities	Rs.	Assets.	Rs.
30,000Shares of Rs.10 each	3,00,000	Freehold property	3,00,000
Profit and loss account		Closing stock	1,80,000
6% Redeemable Debentures	2,40,000	Debtor	1,50,000
Creditors		Cash at bank	2,30,000
	1,80,000		
	1,40,000		
	8,60,000		8,60,000

It was resolved at the annual general meeting.

(a)To pay dividend of 10%

(b)To issue one bonus share for every four shares held

(c)To give existing shareholders the option to buy one share ofRs.10atRs.15 for every four shares held prior to bonus distribution

(d)To pay the debentures at a premium of 5%

All the share holders took up the option (c) above. Pass necessary Journal entries and draw up the balance Sheet after the above transactions have been given effect to.

13. What is a Share? Explain different types of Shares?

14. Explain the legal provisions relating to issue of Shares as per Companies Act 2013

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Commerce	*CCA-301G/C C*	*2018-2019*	*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	Issue and Redemption of Debentures	Valuation of Goodwill and Shares:	Company Final Accounts:	Provisions of the Companies Act, 2013
5Marks	1	1	2	1	1
15Marks	1T	2P	3P	1P	1T
Weight age	20	35	55	20	20

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Commerce	*CBS-302G/C C*	*2018-2019*	*II.B.Com(gen/comp)*

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 using Computers (Excel).

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-Normal Distribution.

Unit 4: Measures of Relation:
Meaning and use of correlation – Types of correlation-Karlpearson's correlation coefficient –Spearman's Rank correlation-probable error-Calculation of Correlation by Using Computers. Regression analysis comparison between correlation and Regression – Regression Equations-Interpretation of Regression Co-efficient.

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 –Use of Computer Software.

Suggested Readings:
1. Business Statistics Reddy, C.R Deep Publications.
2. Statistics-Problems and Solutions Kapoor V.K.

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Commerce	*CBS-302G/C C*	*2018-2019*	*II.B.Com(gen/comp)*

SEMESTER –III

Business Statistics

Model Question Paper

Time: 3 hours Max. Marks: 75

SECTION - A

I. Answer any THREE of the following questions 3× 5 = 15 M

1. Explain the characteristics of Statistics.

2.. Explain good qualities of a Measure

3. Explain Skewness

4. What is meant by Correlation?

5. Explain the components in Time series

6. Explain the features of Index Numbers?

SECTION - B

II. Answer any FOUR of the following 4×15 =60 M

7. Calculate Geometric Mean.

C.I	10-20	20-30	30-40	40-50	50-60	60-70
F	4	7	16	20	15	8

8. 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

9. Calculate Bowley's Skewness

X	6	12	18	24	20	16	6
F	4	7	9	18	15	10	5

10. Construct a Histogram.

Marks	325-350	350-375	375-400	400-425	425-450
No. of students	30	45	75	60	35

11. 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

.

12. Find two Regression equations from the following data.

X	10	25	34	42	37	35	36	45
Y	56	64	63	58	73	75	82	77

13. For 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

14. From the following data given Find fishers Index Number. Prove TRT and FRT.

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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Commerce	*CBS-302G/C C*	*2018-2019*	*II.B.Com(gen/comp)*

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	1	1	2
15Marks	1P	1P	2P	2P	2P
Weight age	20	20	35	35	40

Note:1 .In unit III one problem should be given from Measures of dispersion and one problem should be given from Skewness.

Note:2. In unit IV one problem should be given from Correlation and one problem should be given from Regression.

Note:3 .In unit V one problem should be given from Time series and one problem should be given from Index numbers

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Commerce	*CBTP-303G C*	*2018-2019*	*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 - 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-303G C*	*2018-2019*	*II.B.Com(gen)*

SEMESTER –III

BANKING THEORY& PRACTICE

Model Question Paper

Time: 3 hrs Max. Marks: 75

SECTION- A

I. Answer any THREE of the following questions 3 x 5= 15M

1. Credit cards
2. Cash reserve ratio
3. SIDBI
4. Offshore banking
5. Define customer
6. Banker as an Agent

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

7. Describe the functions of commercial banks.
8. What are the various weapons of credit control available to RB.I
9. Elucidate the Merits and demerits of Branch Banking?
10. Discuss the recent trends and innovations in banking system?
11. What are the functions of NABARD?
12. What are the special features of relationship between banker and customer?
13. Dicuss in detailed the statutory protection granted to a collecting banker in india
14. Discuss the duties and liabilities of a paying banker .

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Commerce	*CBTP-303G C*	*2018-2019*	*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	2	1	1	1
15Marks	2	2	1	1	2
Weight age	35	40	20	20	35

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Commerce	*CASO-401G C*	*2018-2019*	*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: 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*	*2018-2019*	*II.B.Com(gen)*

SEMESTER –IV

Accounting for Service Organizations

MODEL PAPER

TIME -3hrs *Max. Marks: 75*

SECTION-A

I. Answer any THREE of the following 3x5=15M

1. What are the features of Non-trading organisations
2. What is reasonable rate of return
3. Non banking assets
4. Slip system of posting
5. Bonus in reduction of premium
6. Reserve for unexpired risks

SECTION-B

II. Answer any Four of the following 4x15=60M

7. Write the special features of double Account system?

8. Visakha Friends club gives you their Receipts and Payments A/c and other Information and requests you to prepare their Income and Expenditure A/c for the year ending 31-12-2007 and Balance sheet as on that date.

Receipts and Payments A/c for the year ended 31-12-2007

Receipts	Rs.	Payments	Rs.
To Balance	3,800	By Salaries	20,000
To Subscriptions	90,000	By Buildings	1,55,000
To Donations for Buildings	80,000	By purchase of Investments	20,000
To Sale of Investments	42,000	By Printing	22,000
To Interest	10,200	By General Expenses	4,000
		By Balance	5,000
	2,26,000		2,26,000

Additional information:

1. Opening Balances:
   Buildings Rs.20, 000, Investments Rs.50,000 , Outstanding Subscriptions Rs. 6,000
2. Value of Investments sold is Rs. 45,000
3. Interest receivable on Investments on 31-12-2007 Rs. 1,500/-
4. Outstanding Subscriptions on 31-12-2007 Rs. 7,800/-
5. Subscriptions Received in Advance on 31-12-2007 Rs. 500/-

9 . 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

10. 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.

11. 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,.

12. 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

13. 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.

14. The Revenue Account of life insurance company showed the life fund of Rs.23,71,000. On 31-12-2016 Before taking in to Account The following items.

(a) Claims intimated but not admitted Rs.89, 250.
(b) Bonus utilized in reduction of premium Rs.13, 500.
(c) Interest accrued on investments Rs.29, 750.
(d) Outstanding premium Rs27, 000.
(e) Claims covered under reinsurance Rs.40, 500.
(f) Provision for taxation Rs.31, 500.

Pass journal entries giving effect to the above adjustments and show . The statement of adjusted life fund.

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Commerce	*CASO-401G C*	*2018-2019*	*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	Insurance Companies	General Insurance
5Marks	1	1	2	1	1
15 Marks	1P	1T+ 1P	2P	2P	1P
Weight age	20	35	40	35	20

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Commerce	*CBL-402G/C C*	*2018-2019*	*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.

Unit-2 Offer and Acceptance

Definition of Valid Offer, Acceptance and Consideration -Essential elements of a Valid Offer, Acceptance and Consideration.

Unit-3 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-4 Sale of Goods Act 1930

Contract of sale – Sale and agreement to sell – Implied conditions and warranties –Rights of unpaid vendor.

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

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Commerce	*CBL-402G/C C*	*2018-2019*	*II.B.Com(gen/comp)*

SEMESTER –IV

Business Laws

MODEL PAPER

TIME -3hrs *Max. Marks: 75*

SECTION-A

I. Answer any THREE of the following 3x5=15M

1. Agreement
2. Acceptance
3. Contingent contracts
4. Quid proquo
5. Unpaid seller
6. Hacking

SECTION-B

II. Answer any TWO of the following 4x15=60M

7. Define the term contract? What are the essentials of a valid contract?
8. Define consideration? What are legal rules to considerate?
9. Write about rules regarding Minors agreement?
10. What are the remedies available to an aggrieved party on the breach of Contract?
11. What is a contract of sale Explain its essential also distinguish a contract of sale from an agreement to sell?
12. Explain briefly the implied conditions and warranties in a contract of sale?
13. Explain the provisions regarding secure electronic records and secure digitals signatures?
14. What implied and express contract? Explain your answer with examples

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Commerce	*CBL-402G/C C*	*2018-2019*	*II.B.Com(gen/comp)*

SEMESTER –IV

Business Laws

Guidelines to the paper setter

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Contract	Offer and Acceptance	Capacity of the Parties and Contingent Contract	Sale of Goods Act 1930	Cyber Laws
5Marks	1	2	1	1	1
15Marks	2	1	2	2	1
Weight age	35	25	35	35	20

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Commerce	*CIT-403G C*	*2018-2019*	*II.B.Com(gen)*

SEMESTER –IV *SYLLABUS*

Income Tax

Unit-I
Introduction: Income Tax Law – Basic concepts: Income, Person, Assesse, Assessment year, Agricultural Income, Capital and revenue, Residential status, Income exempt from tax (theory only).

Unit-II
Income 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(including problems).

Unit-III
Income 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 (including problems).

Unit-IV
Income from Capital Gains – Income from other sources – (from Individual point of view) -chargeability – and assessment (including problems).

Unit-V:
Computation of total income of an individual – Deductions under section - 80 (including 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*	*2018-2019*	*II.B.Com(gen)*

SEMESTER –IV

Income Tax

Model Question Paper

Time: 3 Hrs Max. Marks: 75

SECTION – A

I. Answer any Three of the following 3X 5 = 15M

1. Define the term 'Person'.
2. Explain about agricultural income
3. Describe House rent allownace
4. Explain gross annual value
5. What is meant by long term capital gain
6. Surcharge

SECTION – B

II. Answer any Four of the following 4 x15 =60M

7. How would you determine the residential status of a person.
8. Explain different perquisites?
9. 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

10. 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.

11. Mr. Prasad submits the following particulars about sale of assets

Particulars	Jewellery	Plot	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 2017-18 is:

12.Compute income from other sources:-

(i) Interest on Tax free Bonds of Govt. of AP Rs.15,000 (Net).

(ii) Interest on 'A' Ltd. Debentures Rs.12,000 (Net) (Unlisted).

(iii) Interest on 'B' Ltd. Tax free debentures (Net) Rs.27,000 (listed).

(iv) Dividend from UTI Rs.15,000 (Net).

(v) Dividends from Foreign Companies Rs.48,000 (gross).

(vi) Rent from Foreign of plant, Machinery, Furniture etc, Rs.78,000 Repairs Rs.2,000. Insurance Rs.6,000).

(vii) Directors fee received Rs.62,000.

(viii) Examiner's fee received Rs.36,000.

(ix) Royalty from Sulphur mines Rs.64,000.

(x) Interest on Bank Depoist Rs 44,000

13.Compute tax liability of Mr.'X' who is aged 68 years.

(i) Pension received Rs.1,84,000.

(ii) Rent received Rs.2,74,000 (House property)

(iii) Long term capital gain Rs.80,000.

(iv) Short term capital gain Rs.36,000.

(v) Business profits Rs.1,20,000

(vi) Speculation loss Rs.48,000.

(vii) Horse Race winnings Rs.40,000.

(viii) Interest on Bank deposits Rs.18,000.

(ix) Deposited in PPF Rs.24,000.

(x) Mediclaim paid Rs.22,000.

14. 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

He donated Rs.5,000 to the P.M National Relief Fund and Rs.2,000 raise to the Prime Minister's Drought Relief Fund.

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Commerce	*CIT-403G C*	*2018-2019*	*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 Gains Income from other sources	Computation of total Income of an individual
5Marks	2	1	1	1	1
15Marks	1T	1T+1P	1P	2P	2P
Weight age	25	35	20	35	35

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Commerce	*CBTP-401C C*	*2018-2019*	*II.B.Com(comp)*

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 - 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*	*2018-2019*	*II.B.Com(comp)*

SEMESTER –III

BANKING THEORY& PRACTICE

Model Question Paper

Time: 3 hrs Max. Marks: 75

SECTION- A

I. Answer any THREE of the following questions 3 x 5= 15M

1. Credit cards
2. Cash reserve ratio
3. SIDBI
4. Offshore banking
5. Define customer
6. Banker as an Agent

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

7. Describe the functions of commercial banks.
8. What are the various weapons of credit control available to RB.I
9. Elucidate the Merits and demerits of Branch Banking?
10. Discuss the recent trends and innovations in banking system?
11. What are the functions of NABARD?
12. What are the special features of relationship between banker and customer?
13. Dicuss in detailed the statutory protection granted to a collecting banker in india
14. Discuss the duties and liabilities of a paying banker .

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Commerce	*CBTP-401C C*	*2018-2019*	*II.B.Com(comp)*

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	2	1	1	1
15Marks	2	2	1	1	2
Weight age	35	40	20	20	35

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Commerce	*CBL-501(U)*	*2018-2019*	*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)*	*2018-2019*	*III B.Com(gen/comp)*

SEMESTER -V

Model paper

Business Leadership

Time: 3 hrs Max. Marks: 50

SECTION- A

I. Answer any FOUR of the following questions 4 x 5= 20M

5. Leadership
6. Trait
7. Power
8. 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
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*	*2018-2019*	*III B.Com(gen/comp)*

SEMESTER - V

Business Leadership

Guidelines to the paper setter

	UNIT-I	UNIT-II	UNIT-III
	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*	*2018-2019*	*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 labor 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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Commerce	*CCOA-502G/C C*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -V

Model paper

Cost Accounting

TIME -3hrs SECTION-A Max. Marks: 75

I. Answer any THREE of the following: 3x5=15M

1. Define Cost Accounting? Explain its Advantages.
2. What is Management Accounting? State its limitations.
3. Explain about FIFO Method .
4. What are the essential features of a good wage system?
5. Define the terms “Normal and Abnormal loss”?
6. Explain about BEP Analysis.

SECTION-B

II. Answer any FOUR of the following: 4x15=60M

7. Distinguish between cost accounting and financial accounting

8. 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.

9. 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:

10. 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.

11. 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.

12. 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

13. 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.

14. 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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Commerce	*CCOA-502G/C C*	*2018-2019*	*B.Com(gen/comp)*

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 Technquies
5 Marks questions	2	1	1	1	1
15 Marks questions	2(1T+1P)	1	1	2	2
Weight age	40	20	20	35	35

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Commerce	*CTAX-503C C*	*2018-2019*	*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*	*2018-2019*	*III.B.Com(comp)*

SEMESTER –V *TAXATION*

Model Question Paper

Time: 3 Hrs Max. Marks: 75

SECTION – A

I. Answer any Three of the following 3X 5 = 15M

1. Explain the principle of Taxation
2. What is VAT
3. U/S 80c
4. Filing of Returns
5. Tax Evasion
6. Write about Penalties

SECTION – B

II. Answer any Four of the following 4 x15 =60M

7. Give 10 Examples of Incomes Exempted u/s 10.

8. What is Service tax ? Explain different taxable service

9. 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

10. 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.

11. Mr. Prasad submits the following particulars about sale of assets during 2016-17.

Particulars	Jewellery	Plot	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

12 .Explain the Modes of Tax Recovery

13. Difference between Tax Planning and Tax Evasion

14. Mention the different Kinds of Incomes Specifically mentioned as Chargeable to tax under the head “Income from Other Sources

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Commerce	*CTAX-503C C*	*2018-2019*	*III.B.Com(comp)*

SEMESTER –V *TAXATION*

Guidelines to the paper setter

Time: 3 Hrs Max. Marks: 75

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Introduction	Direct and Indirect taxes	Computation of income under different heads	Taxation System in India	Tax Planning
5Marks	1	1	1	1	2
15Marks	1T	1T	3P+1T	1T	1T
Weight age	20	20	65	20	25

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Commerce	CGST-503G/C	*2018-2019*	*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	*2018-2019*	*III.B.Com(gen)*

GOODS &SERVICE TAX FUNDAMENTALS

SEMESTER –V

MODEL PAPER

TIME -3hrs *Max. Marks: 75*

SECTION-A

I. Answer any THREE of the following 3x5=15M

1. What is GST?
2. Explain the Limitations of VAT
3. Dual GST
4. Subsumed under GST
5. Interstate GST
6. Central GST

SECTION-B

II. Answer any FOUR of the following 4x15=60M

7. What are the advantages of Goods and Services Tax
8. What is the Comprehensive Structure of GST in India?
9. Write about Australian Model of GST
10. Explain the Taxes and Duties outside the Purview of GST
11. What are the advantages of IGST?
12. Explain about interstate transactions under GST
13. What is Time supply of goods and services?
14. What is input tax credit and explain it with suitable examples.

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Commerce	CGST-503G/C	*2018-2019*	*III.B.Com(gen)*

GOODS &SERVICE TAX FUNDAMENTALS

SEMESTER –V

Guidelines to the paper setter

Time: 3 Hrs Max. Marks: 75

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	1	1	1
15Marks	1	2	1	2	2
Weight age	25	35	20	35	35

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Commerce	*CCG-504G/C C*	*2018-2019*	*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*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -V

Model paper

Commercial Geography

Time: 3 hrs Max. Marks: 75

SECTION- A

I. Answer any THREE of the following questions 3 x 5= 15M

1. Global warming
2. Non-food crops
3. CAF 2015
4. Singareni Coal Mines
5. Minerals
6. Krishna River

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

7. Explain the internal structure of the Earth
8. What are the measures to be taken to protect the Earth
9. Explain about different types of soils.
10. Explain forest conservation Act 1980.
11. Describe the need for protection of forests
12. Explain renewable and non renewable minerals
13. Explain the importance of interlinking of rivers
14. What are the problems facing by the farmers in India?

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Commerce	*CCG-504G/C C*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -V

Guidelines to the paper setter

Commercial Geography

	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	The Earth	India-Agriculture	India-Forestry	India-Minerals and Mining	India-Water resources-Rivers
5 Marks questions	1	1	1	2	1
15 Marks questions	2	2	2	1	1
Weight age	35	35	35	25	20

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Commerce	*CCB 505(E)G/C*	*2018-2019*	*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 505(E)G/C*	*2018-2019*	*B.Com(gen)*

SEMESTER -V

Model paper

Central Banking

Time: 3 hrs Max. Marks: 75

SECTION- A

I. Answer any THREE of the following questions 3 x 5= 15M

5. Evolution of Central Bank
6. Bank of Issue
7. RBI Act 1934
8. Statutory liquidity Ratio

5. Exchange Rate
6. Supervision of Banks

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

7. Describe the functions Central Bank.
8. Explain the differences between RBI and Commercial banks
9. State the Role of RBI in Economic Development
10. What are the various weapons of credit control available to RBI
11. What is Cash Reserve Ratio? Explain its importance
12. Bring out Clearly the Exchange Control Function of the RBI
13. Explain Basle Norms and Prudential Norms.
14. Explain the Checking of Money laundering and frauds.

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Commerce	*CCB 505(E)G/C*	*2018-2019*	*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	2	1	1	1	1
15Marks	1	2	2	1	2
Weightage	25	35	35	20	35

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Commerce	*CRC-506(E)G/C*	*2018-2019*	*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 Credit
survey/Banking operations/Credit Appraisal

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Commerce	*CRC-506(E)G/C*	*2018-2019*	*B.Com(gen)*

SEMESTER -V
Model paper

Rural and Farm Credit

Time: 3 hrs Max. Marks: 75

SECTION- A

I. Answer any THREE of the following questions 3 x 5= 15M

1. Rural Credit
2. Self Help Groups
3. Kisan Credit Card
4. PACS
5. Repayment Capacity
6. Credit Survey Report

SECTION- B

II. Answer any FOUR of the following questions 4 x 15 = 60M

7. Describe the significance of Rural Credit
8. Explain Classification of Rural Credit
9. What are Institutional agencies for Financing Agricultural?
10. Explain advantages and disadvantages of Self-Help Groups
11. Explain the principles of Farm Credit
12. Write about NABARD
13. Explain the role of Regional Rural Banks in Farm Credit
14. What is the Analysis of 3C'S of Credit?

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Commerce	*CRC-506(E)G/C*	*2018-2019*	*B.Com(gen)*

SEMESTER -V

Guidelines to the paper setter

Rural and Farm Credit

Marks	UNIT-I	UNIT-II	UNIT-III	UNIT-IV	UNIT-V
	Rural Credit	Rural Credit Agencies	Farm Credit	Sources of Farm Credit	Farm Credit Analysis
5Marks	1	1	1	1	2
15Marks	2	2	1	2	1
Weightage	35	35	20	35	25

COM 507 PROJECT FOR CLUSTER ELECTIVE

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Commerce	*CEM -601G/C C*	*2018-2019*	*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*	*2018-2019*	*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*	*2018-2019*	*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
Weightage	30	30	30

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Commerce	*CM 602GE G/C*	*2018-2019*	*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 Labeling.

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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Commerce	*CM 602GE G/C*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -VI

Model paper

Marketing

Time: 3 hrs Max. Marks: 75

SECTION- A

I. Answer any THREE of the following questions 3 x 5= 15M

1. Selling Concept
2. Marketing Environment
3. Buying Behavior
4. Branding
5. Skimming Pricing
6. Publicity

SECTION- B

II.Answer any FOUR of the following questions 4 x 15 = 60M

7. Describe 4P's of Marketing
8. What are the Different Concepts of Marketing
9. What is Market Segmentation?
10. Describe Product Life Cycle.
11. What are the Factor Influencing Price Determination
12. What are the differences Between Personal selling and direct Marketing?
13. What are the Various Distribution Channels?
14What are the advantages of targeting and positioning

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Commerce	*CM 602GE G/C*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -VI

Guidelines to the paper setter

Marketing

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	2	1	1	1	1
15Marks	2	2	1	1	2
Weightage	40	35	20	20	35

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Commerce	*CAU-603GE G/C*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -VI

SYLLABUS

Auditing

Unit-I: Auditing: Meaning – Objectives – Importance of Auditing – Auditing as a Vigil Mechanism – 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 - Audit program 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 and Reappointment – 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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Commerce	*CAU-603GE G/C*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -VI

Model Paper

Auditing

TIME -3hrs Max. Marks: 75

SECTION -A

I. Answer any THREE of the following question 3 x 5= 15M

1. Explain the scope of audit
2. Corporate Frauds
3. Government Audit
4. Audit note book
5. Characteristics of Investigation.
6. Audit Report

SECTION -B

II. Answer any FOUR of the following questions 4x15=60M

7. Define auditing .Explain its features and its advantages.
8. What are the various types of audits classified on the basis of organization? Structure
9. What is audit program me. Explain its advantages and disadvantages
10. What is internal control .Explain its advantages and disadvantages
11. "Vouching is the essence of auditing". Explain
12. Explain the difference between Investigation and auditing
13. Explain the rights and duties of an auditor.
14. Explain different types of Audit Reports

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Commerce	*CAU-603GE G/C*	*2018-2019*	*B.Com(gen/comp)*

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	2	1	1	1	1
15Marks	1	1	2	2	2
Weightage	25	20	35	35	35

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Commerce	*CMA 604GE G/C*	*2018-2019*	*B.Com(gen/comp)*

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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Commerce	*CMA 604GE G/C*	*2018-2019*	*B.Com(gen/comp)*

SEMESTER -VI

SYLLABUS

Management Accounting

Time: 3hrs Max.Marks:75

SECTION – A

I. Answer any THREE from the following: 3x5=15M

1. Explain common – size statements
2. What are the uses of management accounting?
3. Describe the importance ratios
4. Define a fund flow statement.
5. How will you calculate cash from operations?
6. M O S

SECTION – B

II. Answer any TWO from the following: 4x15=60M

7). Following are the two balance sheets of 'A' LTD and 'B' LTD on 31-3-2008.

Particulars	*'A'ltd (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

8).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.

9). From the following two balance sheets as on 31st December 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

10). Define a cash flow statement. Distinguish between 'funds flow' and 'cash flow'.

11). X LTD, made a profit of Rs.18,00,000 for the year ended 31st march, 2008 after considering the following:

	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

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.

12). 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

13). 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

14). 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*	*2018-2019*	*B.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	1	1
15Marks	2	1	1	2	2
Weightage	40	20	20	35	35

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Commerce	*CFS 605 CE G/C*	*2018-2019*	*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*	*2018-2019*	*B.Com(gen)*

SEMESTER -VI

Model paper

Financial Services

TIME -3hrs Max. Marks: 75

SECTION -A

I. Answer any THREE of the following question 3 x 5= 15M

1. What are Banking Companies?
2. What are Fund based activities
3. What is Venture Capital?
4. Hire Purchasing.
5. CRISIL.
6. NSDL.

SECTION -B

II. Answer any Four of the following questions 4x15=60M

7. Explain the role of Financial Services
8. Explain the activities of Non Banking Finance Companies
9. Explain the Scope and Importance of Merchant Banking
10. Explain Demat services and Securitization
11. Explain the Types of Leases
12. Explain Different Credit rating agencies
13. Describe about Mutual funds
14. What are Central Depository Systems?

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Commerce	*CFS 605 CE G/C*	*2018-2019*	*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	2	1	1	1	1
15Marks	2	2	1	2	1
Weightage	40	35	20	35	20

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DA)

Commerce	*CMFS 606 CE G/C*	*2018-2019*	*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.

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Commerce	*CMFS 606 CE G/C*	*2018-2019*	*B.Com(gen)*

SEMESTER -VI

Model paper

Marketing of Financial Services

TIME -3hrs Max. Marks: 75

SECTION -A

I. Answer any THREE of the following question 3 x 5= 15M

1. What are the service elements?
2. Customer loyalty
3. Marketing Planning
4. Designing and Managing service process
5. Investment services
6. Credit services

SECTION -B

II. Answer any Four of the following questions 4x15=60M

7. Describe Managing Service Counters
8. Explain Service Quality and Productivity
9. Explain different Pricing strategies
10. Explain B2B Marketing
11. What are the different approaches for providing services?
12. What are the advantages of Cost and Revenue Management?
13. Explain Institutional Financial Services
14. Explain different Service Elements

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Commerce	*CMFS 606 CE G/C*	*2018-2019*	*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	2
15Marks	2	1	2	2	1
Weightage	35	20	35	35	25

PROJECT WORK for CLUSTER ELECTIVE COM607P

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

DEPARTMENT OF COMPUTER SCIENCE

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

Minutes of the meeting of Board of Studies in Computer Science for I B.Sc.(MPCs, MCCs), B.Com.(C.A.) and Foundation Course of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 11-04-2018 in the Department of Computer Science.

Sri Ch. Mohan Babu ... Presiding

Members Present:

1)..... (Ch. Mohan Babu)	Chairman	Head, Department of Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165
2)..... (Prof. S. Pallam Setty)	University Nominee	Professor, Dept of Computer Science, Andhra University, Visakapatnam.
3)..... (P. L. Ramesh)	Academic Council Nominee	Head, Department of Computer Science, K.B. N. College Vijayawada.
4)..... (K. Sridhar)	Academic Council Nominee	Head, Department of Computer Science, P.B. Siddhartha College of Arts & Science, Vijayawada.
5)..... (T.Naga Prasada Rao)	Member	Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165
6)..... (R. Sowjanya)	Member	Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165
7)..... (S. Devi Sushma)	Member	Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165
8)..... (V. Naga Malleswara Rao)	Member	Lecturer in Computer Science AG & SG Siddhartha Degree College of Arts & Science Vuyyuru-521165

Agenda for B.O.S Meeting.

1. To recommend syllabi for I and II Semesters of I year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), II & III Semesters of II year B.Sc.(MCCs), B.Com.(C.A), & V & VI Semester of III year B.Com.(C.A) Courses under Choice Based Credit System With Effect From Academic Year 2018-19.

2. To recommend the Model Question Papers, Lab programs list and Blue print of I and II Semesters of I year Degree B.Sc.(MPCs, MCCs.),B.Com (C.A.) , II & III Semesters of II year B.Sc.(MCCs), II B.Com.(C.A), and V & VI Semester of III year B.Com.(C.A) Courses under Choice Based Credit System With Effect From Academic Year 2018-19.

3. To recommend the Guidelines to be followed by the question paper setters in Computer Science for I and II Semesters of I year Degree B.Sc.(MPCs, MCCs.), B.Com (C.A.), II & III Semesters of II year B.Sc.(MCCs), B.Com(C.A) V & VI Semester of III year B.Com.(C.A) Courses under Choice Based Credit System With Effect From Academic Year 2018-19.

4. To recommend any changes in the syllabi for I, II,III,IV,V& VI Semesters of I,II.III year Degree B.Sc.(MPCs) and B.Com.(C.A.).

5. To recommend any changes in the syllabi for I, II, III ,IV,V& VI Semesters of I ,II .III Degree B.Sc.(MPCs) and B.Com.(C.A.)

6. To recommend the teaching and evaluation methods to be followed under Autonomous status.

7. To recommend the certificate courses for all Computer Science and Non-Computer Science studentsAny suggestions regarding seminars, workshops, Guest lecturers to be organized.

8. 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.

9. To recommend the syllabus for III & IV semester of B.Sc MCCS

Resolutions

1) Discussed and recommended as per the APSCHE guidelines and their instructions it is resolved to implement syllabi for V and VI Semesters of III Year Degree B.Sc. (MPCs), B.Com. (C.A.) Courses under Choice Based Credit System with Effect From Academic Year 2017-18.

2) **To recommend New course in Semester V with Course Code "COM-CSC-507" and Paper Title "Web Technologies" for B.COM(C.A)**

3) 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 V and VI Semesters of III Year Degree B.Sc. (MPCs), B.Com. (C.A.) Courses under Choice Based Credit System with Effect from Academic Year 2017-18.

4) Discussed and recommended the guidelines to be followed by Question Paper Setters in Computer Science for V and VI Semesters of III Year Degree B.Sc. (MPCs), B.Com.(C.A.) Courses under Choice Based Credit System With Effect From Academic Year 2017-18.

5) Discussed and recommended the same syllabi without changes for I, II, III and IV Semesters of I &II Year Degree B.Sc. (MPCs), B.Com (C.A.) and Foundation Course for All Degree Courses under Choice Based Credit System with Effect from Academic Year 2017-18.

6) To recommend syllabi for V and VI Semesters of II year Degree B.Sc.(MPCS), B.Com (C.A.) Courses under Choice Based Credit System With Effect From Academic Year 2016-17

7) Discussed and recommended the teaching and evaluation methods for approval of Academic Council.

8) 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.

9) **Discussed and Recommend to introduce Value Added Course in "COMPILER DESIGN " with Course Code "CDVAC101" for II MPC'S.**

10) It is resolved to introduce new program B.Sc MCCS from the Academic year 2017-18.The papers for I & II semester are the same as MPCS.

11) Resolved to introduce new syllabus in CSC-602CE, CSC-603CE in VI semester

Chairman

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
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(With Effect from Academic Year 2017-'18)

COMPUTER SCIENCE	**CSC-101C**	**2018-19**	**B.Sc.(MPCs, MCCs.)**

SEMESTER – I PAPER – I Max. Marks 70Pass Marks 28Total Hrs 60

Syllabus: Computer Fundamentals & Photoshop NO. Of. Hours: 4 Credits:3

UNIT-I: 12Hrs

Introduction to computers,characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations. Number systems: binary, hexa and octal numbering system.

UNIT-II: 12Hrs

Input and output devices: Keyboard and mouse, inputting data in other ways, Types ofSoftware: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.

Unit –III: 15Hrs

Introduction to Adobe Photoshop, Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar ,option bar ,image window ,image title bar ,status bar, ruler ,paletts, tool box ,screen modes ,saving files ,reverting files ,closing files.

Unit –IV: 10Hrs

Images: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening an Image, image backgrounds, making selections.

Working with tool box: working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels Curves - Seeing Colour accurately - Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

Unit-V: 11Hrs

Layers: Working with layers- layer styles- opacity-adjustment layers

Filters: The filter menu, Working with filters- Editing your photo shoot, presentation –how to create adds , artstic filter, blur filter, brush store filter, distort filters, noice filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

Reference Books:

1. Fundamentals of Computers by Reema Thareja from Oxford University Press
2. Adobe Photoshop Class Room in a Book by Adobe Creative Team.
3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Colour Grading & Graphic...19 February 2016 by David Maxwell

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COMPUTER SCIENCE	CSC-101C	2018-19	B.Sc.(MPCs, MCCs.)

SEMESTER – I PAPER – I Max. Marks 70 Pass Marks 28

Model Paper Computer Fundamentals & Photoshop NO Of Hours: 4 Credits: 3

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4*5=20M

1. Explain Characteristics and limitations of Computer?
2. Explain desktop, start menu, icons?
3. Describe Cache Memory?
4. Explain saving, retrieving and closing files in Photoshop?
5. Write a short note on Pen tool?
6. Explain working with Layers?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks. 5*10=50M

7. Explain Block Diagram of Computer?
8. Explain Types of Computers?
9. Explain about Input Devices?
10. Explain about Computer Memory?
11. Explain title-bar, menu-bar, option- bar and image window in Photoshop?
12. Explain Rulers, Guide and Grid-Cropping options for an Image?
13. Explain Colour modes – Levels and Curves?
14. Explain different Filters Photoshop?

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COMPUTER SCIENCE	CSC-101	2018-'19	B.Sc.(MPCs., MCCs.)

SEMESTER – I PAPER – I Max. Marks 70

Guidelines for paper setting **'COMPUTER FUNDAMENTALS & PHOTOSHOP'**

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-101P**	**2018-19**	**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 ***Photo Shop Lab***

1. Create your Visiting card
2. Create Cover page for any text book
3. Create a Paper add for advertising of any commercial agency
4. Design a Passport photo
5. Create a Pamphlet for any program to be conducted by an organization
6. Create Broacher for you college
7. Create Titles for any forthcoming film
8. Custom shapes creation
9. Create a Web template for your college
10. Convert colour photo to black and white photo
11. Enhance and reduce the given Image size
12. Background changes
13. Design Box package cover
14. Design Texture and patterns
15. Filter effects & Eraser effects

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COMPUTER SCIENCE	CSC-201C	2018-'19	B.Sc.(MPCs, MCCs.)

SEMESTER – II PAPER – IIMax. Marks 70Pass Marks 28 Total Hrs: 60

SyllabusPROGRAMMING IN C NO. Of. Hours: 4Credits:3

UNIT- I **15Hrs**

Introduction to Algorithms and Programming Languages: Algorithm – Key features ofAlgorithms - Some more Algorithms – Flow Charts – Pseudo code – Programming Languages – Generation of Programming Languages – Structured Programming Language.

Introduction to C: Introduction – Structure of C Program – Writing the first C Program –File used in C Program – Compiling and Executing C Programs – Using Comments –Keywords – Identifiers – Basic Data Types in C – Variables – Constants – I/O Statements inC- Operators in C- Programming Examples – Type Conversion and Type Casting

UNIT- II **15Hrs**

Decision Control and Looping Statements: Introduction to Decision Control Statements –Conditional Branching Statements – Iterative Statements – Nested Loops – Break andContinue Statement – Goto Statement**Functions**: Introduction – using functions – Function declaration/ prototype – Functiondefinition – function call – return statement – Passing parameters – Scope of variables –Storage Classes Recursive functions – Type of recursion – Towers of Hanoi – Recursion vsIteration

UNIT -III **10Hrs**

Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – StoringValues in Array – Calculating the length of the Array – Operations on Array – onedimensional array for inter-function communication – Two dimensional Arrays –Operationson Two Dimensional Arrays - Two Dimensional Arrays for inter-function communication –Multidimensional Arrays – SparseMatrices**Strings:** Introduction –Suppressive Input – String Taxonomy – String Operations – Miscellaneous String and Character functions

UNIT- IV **10Hrs**

Pointers: Understanding Computer Memory – Introduction to Pointers – declaring PointerVariables – Pointer Expressions and Pointer Arithmetic – Null Pointers – Generic Pointers -Passing Arguments to Functions using Pointer – Pointer and Arrays – Passing Array toFunction – Difference between Array Name and Pointer – Pointers and Strings – Array ofpointers – Memory Allocation in C Programs – MemoryUsage – Dynamic Memory Allocation – Drawbacks of Pointers

Structure, Union, and Enumerated Data Types: Introduction – Nested Structures – Arraysof Structures – Structures and Functions – Self referential Structures – Union – Arrays ofUnions Variables – Unions inside Structures – Enumerated Data Types

UNIT -V **10Hrs**

Files: Introduction to Files – Using Files in C – Reading Data from Files – Writing Data from Files – Detecting the End-of-file – Error Handling during File Operations – AcceptingCommand Line Arguments – Functions for Selecting a Record Randomly - Remove() –Renaming a File – Creating a Temporary File

REFERENCE BOOKS

1. Introduction to C programming by REEMA THAREJA from OXFORD UNIVERSITY PRESS
2. E Balagurusamy: ―COMPUTING FUNDAMENTALS & C PROGRAMMING – Tata McGraw-Hill, Second Reprint 2008, ISBN 978-0-07-066909-3.
3. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.
4. Henry Mullish & Huubert L.Cooper: The Spirit of C An Introduction to modern Programming, Jaico Pub. House,1996.

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COMPUTER SCIENCE	**CSC-201C**	**2018-'19**	**B.Sc.(MPCs, MCCs.)**

SEMESTER – II PAPER – II Max. Marks 70Pass Marks 28

SyllabusPROGRAMMING IN C NO. Of. Hours: 4Credits:3

Section- A

Answer FOUR Questions. Each Question carries FOUR Marks. 4*5=20M

1. Write a short note on Flowchart?
2. Explain about input and output Statements?
3. Explain storage classes?
4. Explain one dimensional array with example?
5. Explain dynamic memory allocation?
6. How to open a file?

Section- B

Answer FIVE the Questions. Each Question carries EIGHT 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. Write about two dimension arrays? Give an example program?
12. Explain briefly about string function in 'C'?
13. Difference between structures and unions?
14. Explain different file modes?

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COMPUTER SCIENCE	CSC-201c	2018-'19	B.Sc.(MPC's,MCCS)

SEMESTER – II PAPER – II Max. Marks 70

Guidelines for paper setting **'PROGRAMMING IN C'**

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 **2017-'18**)

COMPUTER SCIENCE	**CSC-201P**	**2018-'19**	**B.Sc.(MPCs,MCCs.)**

SEMESTER – II PAPER – II Max. Marks 50 Pass Marks 25

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	**CCSC-103C**	**2018-19**	**B.Com.(C.A)**

SEMESTER – I PAPER – I Max. Marks 70Pass Marks 28 Total Hrs 60

Syllabus:Computer Fundamentals & Photoshop NO. Of. Hours: 5Credits:3

UNIT-I: 12Hrs

Introduction to computers,characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations. Number systems: binary, hexa and octal numbering system.

UNIT-II: 12Hrs

Input and output devices: Keyboard and mouse, inputting data in other ways, Types ofSoftware: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.

Unit –III: 15Hrs

Introduction to Adobe Photoshop, Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar ,option bar ,image window ,image title bar ,status bar, ruler ,paletts, tool box ,screen modes ,saving files ,reverting files ,closing files.

Unit –IV: 10Hrs

Images: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening an Image, image backgrounds, making selections.

Working with tool box: working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels Curves - Seeing Colour accurately - Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

Unit-V: 11Hrs

Layers: Working with layers- layer styles- opacity-adjustment layers

Filters: The filter menu, Working with filters- Editing your photo shoot, presentation –how to create adds , artstic filter, blur filter, brush store filter, distort filters, noice filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

Reference Books:

1. Fundamentals of Computers by Reema Thareja from Oxford University Press
2. Adobe Photoshop Class Room in a Book by Adobe Creative Team.
3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Colour Grading & Graphic...19 February 2016 by David Maxwell

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COMPUTER SCIENCE	**CCSC-103C**	**2018-'19**	**B.Com.(C.A)**

SEMESTER – I PAPER – I Max. Marks 70 Pass Marks 28

Model Paper **Computer Fundamentals & Photoshop** **NO Of Hours: 5 Credits: 3**

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4*5=20M

1. Explain Characteristics and limitations of Computer?
2. Explain desktop, start menu, icons?
3. Describe Cache Memory?
4. Explain saving, retrieving and closing files in Photoshop?
5. Write a short note on Pen tool?
6. Explain working with Layers?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks. 5*10=50M

7. Explain Block Diagram of Computer?
8. Explain Types of Computers?
9. Explain about Input Devices?
10. Explain about Computer Memory?
11. Explain title-bar, menu-bar, option- bar and image window in Photoshop?
12. Explain Rulers, Guide and Grid-Cropping options for an Image?
13. Explain Colour modes – Levels and Curves?
14. Explain different Filters Photoshop?

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COMPUTER SCIENCE	CCSC-103C	2018-'19	B.Com.(C.A)

SEMESTER – I PAPER – I Max. Marks 70

Guidelines for paper setting '**COMPUTER FUNDAMENTALS & PHOTOSHOP'**

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-103P**	**2018-19**	**B.Com. (CA.)**

SEMESTER – I PAPER – I Max. Marks : 50 Pass Marks 25

No. of Hours per week: 2 External: 25 Internal: 25 Credits: 2

Lab List ***Photo Shop Lab***

1. Create your Visiting card
2. Create Cover page for any text book
3. Create a Paper add for advertising of any commercial agency
4. Design a Passport photo
5. Create a Pamphlet for any program to be conducted by an organization
6. Create Broacher for you college
7. Create Titles for any forthcoming film
8. Custom shapes creation
9. Convert colour photo to black and white photo
10. Background changes
11. Design Texture and patterns
12. Filter effects & Eraser effects

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COMPUTER SCIENCE	**CCSC-203C**	**2018-'19**	**B.Com.(C.A)**

SEMESTER –II PAPER – II Max. Marks 70Pass Marks 28 Total Hrs 60

Syllabus:ENTERPRISE RESOURCE PLANNING NO. Of. Hours: 5Credits:4

Unit-I: Introduction: **12Hrs**

Overview of enterprise systems – Evolution - Risks and benefits - Fundamental technology - Issues to be consider in planning design and implementation of cross functional integrated ERP systems.

Unit- II: **ERP Solutions and Functional Modules:** **12Hrs**

Overview of ERP software solutions- Small, medium and large enterprise vendor solutions, BPR and best business practices - Business process Management, Functional modules.

Unit-III:ERP Implementation: **12Hrs**

Planning Evaluation and selection of ERP systems -Implementation life cycle - ERP implementation, Methodology and Frame work- Training – Data Migration - People Organization in implementation- Consultants, Vendors and employees.

Unit-IV:Post Implementation: **10Hrs**

Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.

Unit-V: **Emerging Trends on ERP**: **14Hrs**

Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing.

References:

1. Alexis Leon, ERP demystified, second Edition Tata McGraw-Hill, 2008.
2. Sinha P. Magal and Jeffery Word, Essentials of Business Process and Information System, Wiley India, 2012
3. Jagan Nathan Vaman, ERP in Practice, Tata McGraw-Hill, 2008
4. Alexis Leon, Enterprise Resource Planning, second edition, Tata McGraw-Hill, 2008.
5. Mahadeo Jaiswal and Ganesh Vanapalli, ERP Macmillan India, 2009
6. Vinod Kumar Grag and N.K. Venkitakrishnan, ERP- Concepts and Practice, PHI, 2006.
7. Summer, ERP, Pearson Education, 2008

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(With Effect from Academic Year **2017-'18**)

COMPUTER SCIENCE	**CCSC-203C**	**2018-'19**	B.Com. (C.A)

SEMESTER – II PAPER – II Max. Marks 70 Pass Marks 28

Model Paper Enterprise Resource Planning NO Of Hours: 5 Credits: 4

Section- A

Answer FOUR Questions. Each Question carries FIVE Marks. 4*5=20M

1. Explain the Overview of ERP?
2. Write a short note on Small, Medium Business Vendor solution?
3. Explain Data Migration?
4. Explain Methodology and Frame work of ERP Implementation?
5. Explain Organizational impact on maintains of ERP?
6. Explain cloud computing?

Section- B

Answer FIVE the Questions. Each Question carries EIGHT Marks. 5*10=50M

7. Explain Evolution of ERP.
8. Advantages and disadvantages of ERP.
9. Explain about functional Modules in ERP
10. Explain about Implementation life Cycle
11. Explain people Organisation in ERP implementation
12. Explain success and failure factors of ERP Implementation
13. Explain about Consumer Relation Ship Management (CRM) & Supply Chain Management (SCM)?
14. What are future trends in ERP system?

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COMPUTER SCIENCE	COM-CSC-203	2018-'19	B.Com.(C.A)

SEMESTER – II PAPER – II Max. Marks 70

Guidelines for paper setting 'ENTERPRISE RESOURCE PLANNING'

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	1	2
Unit-2	1	1
Unit-3	2	2
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	**ICT-I-201**	**2018-'19**	**B.A, B.Com, B.Sc.**

SEMESTER – IIPAPER – IMax. Marks 50 Pass Marks 20 Total Hrs: 30

SyllabusComputer Fundamentals & Office Tools NO. Of Hrs: **2Credits**: **2**

Unit-I : Basics of Computers **6 Hrs**

Definition of a Computer - Characteristics and Applications of Computers – BlockDiagram of a Digital Computer – Classification of Computers based on size and workingCentral Processing Unit – Input, Output and I/O Devices

Unit-II: Memory Devices & Operating Systems **6Hrs**

Primary, Auxiliary and Cache Memory – Memory Devices – Software, Hardware, Firmware and People ware –Definition and Types of Operating System – Functions of an Operating System – MS-DOS MS-Windows – Desktop, Computer, Documents, Pictures, Music, Videos, Recycle Bin, Task Bar – Control Pane

Unit-III: MS-Word **6 Hrs**

Features of MS-Word – MS-Word Window Components – Creating, Editing, Formattingand Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading – Inserting Symbols, Shapes, Word Art, PageNumbers, Equations – Spelling and Grammar – Thesaurus – Mail Merge

Unit-IV: MS-PowerPoint **6 Hrs**

Features of PowerPoint – Creating a Blank Presentation - Creating a Presentation usinga Template - Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures -Inserting Other Objects, Audio, Video - Resizing and Scaling of an Object – SlideTransition – Custom Animation

Unit-V : MS-Excel **6 Hrs**

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

Reference Books :

1. Fundamentals of Computers by V.Raja Raman, Publishers : PHI
2. Fundamentals of Computers by Reema Thareja, Publishers : Oxford UniversityPress, India
3. Microsoft Office 2010 Bible by John Walkenbach, Herb Tyson, Michael R.Grohand Faithe Wempen, Publishers : Wiley

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COMPUTER SCIENCE	**ICT-I-201C**	**2018-'19**	**B.A, B.Com, B.Sc.**

SEMESTER – II **PAPER – I** **Max. Marks 50** **Pass Marks 20**

Model paperComputer Fundamentals & Office Tools NO. Of Hrs: **2Credits**: **2**

SECTION-A

Answer FOUR of the following questions **4x5=20M**

1. Explain characteristics of Computer?
2. Explain any five Input devices?
3. Write about Desktop, Computer, Documents, Recycle Bin?
4. Explain about Cache Memory?
5. Explain inserting Headers and Footers in MS-Word?
6. How to Insert/Draw table in MS-Word?
7. Inserting and Deleting slides in presentation?
8. Explain inserting charts in MS-Excel?

SECTION-B

Answer THREEof the following questions **3X10=30M**

9. Explain Block diagram of a Digital Computer?
10. Explain Classification of Computers?
11. Explain Computer Memory?
12. Explain MS-Word Window Components with neat Diagram?
13. Creating power point presentation using Template?
14. Explain Excel Functions

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COMPUTER SCIENCE	ICT-I-201	2018-'19	B.A, B.Com., B.Sc.

SEMESTER – II PAPER – I Max. Marks 50

Guidelines for paper setting **'COMPUTER FUNDAMENTALS & OFFICE 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	**CSC-301C**	**2018-19**	**B.Sc.(MPCs, MCCs.)**

SEMESTER – IIIPAPER – III Max. Marks 75 Pass Marks 30

SyllabusOBJECT ORIENTED PROGRAMMING USING JAVA Total Hrs: 60

NO. Of. Hours: 4Credits: 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, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values; **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, FinalClasses, 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, Naming
conventions, 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 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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COMPUTER SCIENCE	**CSC-301C**	**2018-19**	**B.Sc.(MPCs, MCCs.)**

SEMESTER – IIIPAPER – III **Max. Marks 75** **Pass Marks 30**

MODEL PAPEROBJECT ORIENTED PROGRAMMING USING JAVA

NO Of Hours: 4Credits: 3 **Total Hrs:60**

Section- A

Answer FIVE Questions. Each Question carries FIVE Marks. **5*5=25M**

1. Explain the structure of a java program?
2. Explain different data types in java?
3. Write a short note on if statement
4. Explain about Constructors?
5. Differences between arrays and vectors?
6. Explain about Exception handling?
7. Explain the applet life cycle?
8. How to create and accessing a package?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks **5*10=50M**

9. Explain the Concepts of Object Oriented Programming?
10. Explain java Features?
11. Explain Looping statements with example
12. Explain Method overloading with an example program
13. Explain about inheritance
14. Explain the concept of interface?
15. Explain life cycle of a thread?
16. Explain about Byte Stream Classes?

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COMPUTER SCIENCE	CSC-301C	2018-'19	B.Sc.(MPCs., MCCs.)

SEMESTER – III PAPER – III Max. Marks 75

Guidelines for paper setting '**OBJECT ORIENTED PROGRAMMING USING JAVA'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	1	2
Unit-4	1	1
Unit-5	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 weightage given by us

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COMPUTER SCIENCE	**CSC-301P**	**2018-'19**	**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 Write Applets to draw the various polygons
14. Write a program to assign priorities to threads in java
15. Write an Applet Program to design a Simple Calculator.

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COMPUTER SCIENCE	**ICT-II-301C**	**2018-'19**	**B.A, B.Com, B.Sc.**

SEMESTER – III PAPER – II Max. Marks 50 Pass Marks 20 Total Hrs 30

SyllabusInternet Fundamentals and Web ToolsNO. Of Hrs: **2Credits**: **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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COMPUTER SCIENCE	**ICT-II-301C**	**2018-'19**	**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.
6. Explain about WWW?
7. Explain briefly about web application.
8. Explain Head and Body tags in HTML Document?

Section- B

Answer Any THREEQuestions. 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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(With Effect From Academic Year **2017-'18**)

COMPUTER SCIENCE	ICT-II-301	2018-'19	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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(With Effect from Academic Year **2017-'18**)

COMPUTER SCIENCE	**CSC-401C**	**2018-'19**	**B.Sc.(MPCs. , MCCs.)**

SEMESTER – IV PAPER – IV Max. Marks 75 Pass Marks 30 Total Hrs 60

SyllabusDATA STRUCTURES NO Of Hours: 4 Credits: 4

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, OperationsLinked 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, SequentialAnd 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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(With Effect from Academic Year **2017-'18**)

COMPUTER SCIENCE	**CSC-401C**	**2018-'19**	**B.Sc.(MPCs., MCCs.)**

SEMESTER – IV PAPER – IV Max. Marks 75 Pass Marks 30 Total Hrs 60

Model PaperDATA STRUCTURES NO Of Hours: 4 Credits: 3

Section- A

Answer FIVE Questions. Each Question carries FIVE Marks. 5*5=25M

1. Explain about Primitive & Non primitive Data Structures?
2. Explain about Single Linked List?
3. Write about Applications of Stack?
4. Explain about D-Queue?
5. Write a Short note on Binary tree?
6. Explain ADT?
7. What is Graph? How to represent the Graph
8. Write a program to sort the elements in bubble sort?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks 5*10=50M

9. Explain Linked represents with array? With an Example?
10. Explain Sparse Matrices?
11. Explain stack operations?
12. What is a Queue? Explain Queue implementation?
13. Explain Tree traversing methods?
14. Explain Binary search tree?
15. Explain about BFS and DFS?
16. Explain about sequential and binary searching?

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COMPUTER SCIENCE	CSC-401C	2018-'19	B.Sc.(MPCs., MCCs.)

SEMESTER – IV PAPER – IV Max. Marks 75

Guidelines for paper setting **'DATA STRUCTURES'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	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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SEMESTER – IV PAPER – IV Max. Marks 50 Pass Marks 25 TotalHrss:30

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-303C**	**2018-'19**	**B.Com. (C.A)**

SEMESTER – III PAPER – III Max. Marks 75 Pass Marks 30 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 HrsFormatting

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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SEMESTER – III PAPER – III Max. Marks 75 Pass Marks 30 Total Hrs: 60

Model PaperOffice Automation Tools NO Of Hours: 5 Credits: 4

Section- A

Answer FIVE Questions. Each Question carries FIVE Marks. 5*5=25M

1. Explain Features of Excel?
2. Explain Number Formatting in Excel?
3. Explain How to Change row Height??
4. What are advantages of Functions?
5. Explain what is sorting?
6. Explain how to delete Macro?
7. Write any 5 Features of Access?
8. Describe Query used in MS-Access?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks. 5*10=50M

9. Explain Parts of Excel Sheet with neat Diagram.
10. Explain AutoFill and Custom Fill Options in Excel.
11. Explain different types of Functions available.
12. Explain different Formatting options.
13. What is Chart? Explain different types of Charts.
14. What is Macro? Explain Creating and Editing of Macro.
15. What is Form? Explain Creating Form using Form Wizard.
16. Explain How to Create a Query, Showing, all records after Query and Saving Query.

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COMPUTER SCIENCE	CCSC-303C	2018-'19	B.Com. (C.A)

SEMESTER – III PAPER – III Max. Marks 75

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	2	2
Unit-3	2	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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SEMESTER – III PAPER – III Max. Marks 50Pass 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	**CCSC-403C**	**2018-'19**	**B.Com.(C.A)**

SEMESTER –IV PAPER – IV Max. Marks 75 Pass Marks 30 Total Hrs 60

Syllabus: Business Analytics **NO. Of. Hours: 5 Credits:4**

Unit-I: **12Hrs**

Introduction - Business Analytics Life Cycle - Business Analytics Process - Data concepts - Data exploration & visualization - Business Analytics as Solution for Business Challenges .

Unit-II: **12Hrs**

Automated Data Analysis: Tabulation and Cross Tabulation of Data: Univariate, Bivariate and Multivariate Data Analysis – ANOVA.

Unit-III: **12Hrs**

Hypothesis Testing: Type 1 & 2 errors - T-test, ANOVA, Chi-Square and correlation- Linear Regression Analysis - Logistic Regression - Cluster Analysis - Market Basket Analysis.

Unit-IV: **14Hrs**

Business Data Management: Master Data Management: Data Warehousing and kinds of Architecture – Data Extraction – Transformation and Up-loading of Data – Data Mining – Meta Data – Data Marts – Creating Data Marts – Data Integration – OLTP and OLAP.

Unit-V: **10Hrs**

SPSS Packages – Applications and Case Studies.

Suggested Books:

1. Gupta S.P. "Statistical Methods", Sultan Chand, New Delhi, 2010.
2. K.V. Rao, "Research Methodology in Commerce and Management", Sterling Publishers, New Delhi, 2012.
3. T.S. Wilkinson & P.L. Bhandarkar, "Methodology and Techniques of Social Research", 2010.
4. Richard A.Johnson & Dean W.Wichern, "Applied Multivariate Statistical Analysis", Prentice Hall International Inc., 2007.
5. R.N Prasad and Seema Acharya, "Fundaments of Business Analytics", Wiley India
6. Pang-Ning Tan, Michael Steinbach & Vipin Kumar, "Introduction to Data Mining", Pearson, 2009.
7. Alex Berson, Stephen Smith & Kurt Thearling, "Building Data Mining Application forCRM", Tata McGraw Hill, New Delhi,2000.

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SEMESTER – IV PAPER – IVMax. Marks 75 Pass Marks 30 Total Hrs: 60

Model Paper Business Analytics NO Of Hours: 5 Credits: 4

Section- A

Answer FIVE Questions. Each Question carries FIVE Marks. 5*5=25M

1. What is the role of Business Analyst?
2. Write a short note on Pivot table?
3. Explain methods of Tabulation?
4. Write a short note on ANOVA?
5. What is T-Test?
6. Explain Scatter diagram method?
7. Describe Data Warehouse?
8. Write a short note on SPSS?

Section- B

Answer FIVE the Questions. Each Question carries TEN Marks. 5*10=50M

9. Explain Business Analytics life cycle?
10. Define Data? Explain about different types of data?
11. Explain different types of Tabulation?
12. What is Hypothesis Testing? Explain One Tailed and Two Tailed test?
13. What is Regression? Explain Logistic Regression?
14. Explain about Data Marts?
15. Explain Different types of OLAP Architecture?
16. Explain Basic steps in working with SPSS?

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SEMESTER – IV PAPER – III Max. Marks 75

Guidelines for paper setting '**BUSINESS ANALYTICS**'

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	2
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.

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COMPUTER SCIENCE	**CSC-501C**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – V **PAPER – V** **Max. Marks 75**

Syllabus **DATA BASE MANAGEMENT SYSTEMS**

NOOf Hours:4No Of Credits:3Pass Marks 30

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**

*Normalization of database tables:*Data base Tables and Normalization, The need for 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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SEMESTER – V **PAPER – V** **Max. Marks 75**

Model Paper **DATA BASE MANAGEMENT SYSTEMS**

NO Of Hours: 4No Of Credits: 3 **Pass Marks 30**

Section-A

Answer any **FIVE** Questions. Each question carries **FIVE** Marks **5x5=25M**

1. Explain the Components of Database System.
2. Explain Relational Data Model.
3. Write about Relational Set Operators.
4. Explain Integrity Rules.
5. Describe BCNF.
6. Differences between Centralized and Decentralized design.
7. Write about Special Functions.
8. Explain Stored Procedures.

Section-B

Answer any **FIVE** Questions. Each question carries **TEN** Marks **5X10=50M**

9. What is File? Explain the problems with File system
10. Explain the Degree of Data Abstraction.
11. Explain E.F.CODDs' rules.
12. Explain Extended Entity Relationship Model.
13. Explain the concept of Normal Forms.
14. Explain about SDLC.
15. Explain DDL and DML commands.
16. Explain about triggers.

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COMPUTER SCIENCE	CSC-501C	2018-'19	B.Sc.(MPCs)

SEMESTER – VPAPER – V Max. Marks 75 Pass Marks 30

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	2	2
Unit-3	2	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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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
30. hired after employee BLAKE.
31. . 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.
32. 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, varchar2Address: 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	2018-'19	B.Sc.(MPCs)

SEMESTER – V **PAPER – VI Max. Marks 75** **Syllabus**

SOFTWARE ENGINEERING

NO of Hours: 4No Of Credits: 3 **Pass Marks 30**

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 And Team Process Models: 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: Analysis Model **12Hrs**

Requirements Analysis -Analysis Modelling Approaches - Data Modelling Concepts - Object-Oriented Analysis - Scenario-based Modelling - Flow-Oriented Modelling - Class-Based Modelling- Creating a Behavioural Model: Identifying Events with the Use-Case, State Representations.

Unit-V: 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.

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.

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COMPUTER SCIENCE	**CSC-502C**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – V **PAPER – VI** **Max. Marks 75**

Model Paper **SOFTWARE ENGINEERING**

NO of Hours: 4No Of Credits: 3 **Pass Marks 30**

Section – A

Answer any **FIVE** Questions. Each question carries **FIVE** Marks **4x5=25M**

1. Write about Software Layered Technology
2. Explain about Process Framework?
3. Explain about RAD Model
4. Explain about Component Based Development Model
5. Write about Requirement Analysis?
6. Explain Validating Requirements
7. Explain about Domain Analysis?
8. Explain about Modularity?

Section – B

Answer any **FIVE** Questions. Each question carries **TEN** Marks **5X10=50M**

9. Explain about CMMI
10. Explain about Software Myths
11. Explain about Incremental Model
12. Explain about Unified Process
13. Explain about Requirements Engineering Tasks
14. Explain Eliciting Requirements.
15. Explain Scenario based Modelling.
16. Write about design concepts in design engineering.

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COMPUTER SCIENCE	CSC-502	2018-'19	B.Sc.(MPCs)

SEMESTER – VPAPER – V Max. Marks 75 Pass Marks 30

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	2	2
Unit-3	2	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-502C	2018-'19	B.Sc.(MPCS)

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 System6. State Diagram ofOnline Book Store System

7. Deployment Diagram of Online Book Store System8. ER Diagram of Online Book Store

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COMPUTER SCIENCE	**CSC-601(GE)**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VII** **Max. Marks 75**

Syllabus **WEB TECHNOLOGIES**

NO Of Hours: 4No of Credits: 3 **Pass Marks 30**

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.

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: 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

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SEMESTER – VI **PAPER – VII** **Max. Marks 75**

Model Paper **WEB TECHNOLOGIES**

No Of Hours: 4No of Credits: 3 Pass Marks 30

Section -A

Answer **FIVE**Questions. Each Question carries **FIVE** Marks. **5 X 5=25M**

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 arrays in Java Script
5. Describe Data Object
6. Write about Rollover buttons
7. Describe XML Elements
8. Write the syntax of EL and EL variables

Section- B

Answer **FIVE**the Questions. Each Question carries **TEN** Marks **5 X 10=50M**

9. Explain about hyper links? Write about how to link another pages
10. What is Form? Explain about forms with examples
11. What is CSS? How to design Cascading style sheet
12. Explain about Mathematical Functions
13. Explain about Regular Expressions
14. Write about Data validations in DHTML
15. Explain about Document Object Model
16. Explain about JSP Lifecycle with neat diagram

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COMPUTER SCIENCE	CSC-601(GE)	2018-'19	B.Sc.(MPCs)

SEMESTER – VI PAPER – VII Max. Marks 75 Pass Marks 30

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	2	2
Unit-3	2	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-601(GE)**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VI** **Max. Marks 50**

Lab List **WEB TECHNOLOGIES** **Pass Marks 25**

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

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COMPUTER SCIENCE	**CSC-602CE**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Syllabus PHP, MySql & Word Press
NO Of Hours:4Credits: 3 **Pass Marks 30**

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.

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 MySQL 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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COMPUTER SCIENCE	**CSC-602CE**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model PaperPHP, MySql & Word Press

NO Of Hours:3 **No Of Credits: 3** **Pass Marks 30**

Section- A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5*5=25M**

1 .Define variable and list the standard data types in PHP.
2. What is Break and Continue statements in PHP.
3. Define Function and write a program for Function?
4. Write programs to pass an argument to function by Value and Reference in PHP.
5. Explain how to create a simple form in PHP.
6. What is Cookie and explain how to accessing cookie in PHP.
7. Describe Update Command in MySQL with Example.
8. Write a short notes on Word Press.

Section- B

Answer **FIVE** Questions. Each Question carries **TEN** Marks **5*10=50M**

9. Explain about Operators and Expressions available in PHP with examples.
10. Explain about Loops and switching statements in PHP with examples.
11. Explain about Arrays and related functions to arrays in PHP with examples.
12. Explain the following Strings functions with examples
    a. strlen() b. strstr() c. strpos() d. substr() e. strtok()
13. Explain how to send Mail on form submission in PHP.
14. Explain how to work with Sessions in PHP.
15. Explain how to insert & retrieve data with MySql in PHP.
16. Explain how to work with Themes and also featured images in Word Press.

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SEMESTER – VI PAPER – VIII Max. Marks 75 Pass Marks 30

Guidelines for paper setting **' PHP, MySql & Word Press '**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	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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SEMESTER – VI **PAPER – VIII** **Max. Marks 50**

Lab List PHP, MySQL& Word Press LabPass Marks 25

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 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 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 demonstrate 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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COMPUTER SCIENCE	**CSC-603CE**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Syllabus Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS
NO Of Hours:4Credits: 3 **Pass Marks 30**

Course Objective: To impart knowledge in designing a webpage in a structured way by using advanced java script ie., using different scripting languages

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, JQuery DOM Traversing Methods.

Unit – II: jQuery – CSS Methods : **10 Hrs**

Apply CSS Properties, Apply Multiple CSS Properties, Setting Element Width & Height, 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, slideToggle, 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 Set϶, Date Picker, Dialog, Menu, Progress Bar, Slider, Spinner, Tabs, Tooltip, Color Animation, Easing Effects, addClass, removeClass, 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 validations϶ AngularJS $q, AngularJS custom values, AngularJS custom factories, 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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COMPUTER SCIENCE	**CSC-603CE**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model PaperAdvanced java Script: JQUERY/AJAX/JSON/ANGULAR JS

NO Of Hours:3 **No Of Credits: 3** **Pass Marks 30**

Section- A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5*5=25M**

1 .What is jquery? Write a simple program to display welcome message.
2. Write a jquery-dom attributes.
3. How we can apply css properties in j query?
4. Write a program for jquery fade In, fade Out.
5. Discuss in detail about jquery UI categorization.
6. Write a need of AJAX in real websites.
7. What is ISON? Write a syntax &need of ISON in real websites.
8. Write a short notes angularJS built-in directives.

Section- B

Answer **FIVE** Questions. Each Question carries **TEN** Marks **5*10=50M**

9. Explain in detail about DOM traversing methods.
10. Explain detail about jquery-dom manipulation methods.
11. Explain detail about jquery even handling methods.
12. Write a program for droppable , resizable using jquery UI.
13. How can we manipulate the data in a database using jquery-AJAX.
14. What is JSON object ? Discuss in detail about complex JSON objects.
15. What is angular JS ? Need of angular JS in real websites &write any example program.
16. Write a program for registration from and login from using Angular JS.

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COMPUTER SCIENCE	CSC-603CE	2018-'19	B.Sc.(MPCs)

SEMESTER – VI PAPER – VIII Max. Marks 75 Pass Marks 30

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	1
Unit-2	2	2
Unit-3	1	1
Unit-4	2	2
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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SEMESTER – VI **PAPER – VIII** **Max. Marks 50**

Lab ListAdvanced java Script: JQUERY/AJAX/JSON/ANGULAR JS **Pass Marks 25**

No. of Hours per week: 3 **External: 25** **Internal: 25**

Credits: 2

1. Using jQuery find all textareas, 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.

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COMPUTER SCIENCE	CSC-601(EL-A)	2018-'19	B.Sc.(MPCs, MCCs)

SEMESTER – VI **PAPER – VII Max. Marks 75**

Syllabus **OPERATING SYSTEMS**

No Of Hours 3 **Credits 3** **Pass Marks 30**

Course Objectives

1. To understand the services provided by and the design of an operating system.
2. To understand the structure and organization of the file system.
3. To understand what a process is and how processes are synchronized and scheduled.
4. To understand different approaches to memory management.
5. Students should be able to use system calls for managing processes, memory and the file system.

Unit – I: Operating System Introduction: **12 Hrs**

Operating Systems Objectives and functions, Computer System Architecture, OS Structure, OS Operations, Evolution of Operating Systems - Simple Batch, Multi programmed, time shared, Parallel, Distributed Systems, Real-Time Systems, Operating System services.

Unit – II: Process and CPU Scheduling: **12 Hrs**

Process concepts - The Process, Process State, Process Control Block, Threads, Process Scheduling - Scheduling Queues, Schedulers, Context Switch, Pre-emptive Scheduling, Dispatcher, Scheduling Criteria, Scheduling algorithms, Case studies: Linux, Windows.Process Coordination - Process Synchronization, The Critical section Problem, Synchronization Hardware, Semaphores, and Classic Problems of Synchronization, Monitors.Case Studies: Linux, Windows.

Unit – III: Memory Management and Virtual Memory Management **14 Hrs**

Logical & physical Address Space, Swapping, Contiguous Allocation, Paging, Structure of Page Table. Segmentation, Segmentation with Paging, Virtual Memory, Demand Paging, Performance of Demanding Paging, Page Replacement Page Replacement Algorithms, Allocation of Frames.

Unit – IV: File System Interface and Mass Storage Structure **12 Hrs**

The Concept of a File, Access methods, Directory Structure, File System Mounting, File Sharing, Protection, File System Structure. Overview of Mass Storage Structure, Disk Structure, Disk Attachment, Disk Scheduling.

Unit - V: Deadlocks **10 Hrs**

System Model, Deadlock Characterization, Methods for Handling Deadlocks, Deadlock Prevention, Deadlock Avoidance, Deadlock Detection and Recovery from Deadlock.

Prescribed Text Book:

1. Operating System Principles,Abraham Silberchatz,Peter B. Galvin, Greg Gagne 8th Edition.

Reference Books:

2. Principles of Operating Systems by Naresh Chauhan, OXFORD University Press
3. Operating systems - Internals and Design Principles, W. Stallings, 6th Edition, Pearson.
4. Modern Operating Systems, Andrew S Tanenbaum 3rd Edition PHI.
5. Operating Systems A concept - based Approach, 2nd Edition, D. M. Dhamdhere, TMH.
6. Principles of Operating Systems, B. L. Stuart, Cengage learning, India Edition.

Student Activity: 1. Load any new operating system into your computer.

2. Partition the memory in your system 3. Create a semaphore for process synchronization

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COMPUTER SCIENCE	**CSC-601(EL -A)**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VII Max. Marks 75**

Model Paper **OPERATING SYSTEMS**

NO Of Hours: 3No Of Credits: 3 **Pass Marks 30**

Section- A

Answer **FIVE**Questions. Each Question carries **FIVE** Marks. **5X5=25M**

1. What is Operating System? Explain Operating System structure?
2. Describe Operating System Operations?
3. Explain process control Blocks.
4. Write about Dining Philosophers Problem?
5. Differences between Logical Address and Physical Address Spaces
6. Write about Virtual Memory?
7. Write about file Operations?
8. Write about Banker's Algorithm?

Section- B

Answer **FIVE**the Questions. Each Question carries **TEN** Marks **5X10=50M**

9. Explain Computer System Architecture?
10. Explain different types of Operating Systems?
11. Explain about process Scheduling?
12. Explain about Semaphore?
13. Explain about Swapping?
14. Explain about page Replacement?
15. Explain about Disk Scheduling?
16. Explain dead lock Characterisation?

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COMPUTER SCIENCE	**CSC-601 (EL-B)**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VII** **Max. Marks 75**

Syllabus **COMPUTER NETWORKS**

NO Of Hours:3 Credits: 3 **Pass Marks 30**

Course Objectives:

1. To provide an introduction to the fundamental concepts on data communication and the design of computer networks.
2. To get familiarized with the basic protocols of computer networks.

Unit – I: Introduction & The Physical Layer: **12 Hrs**

Uses of Computer Networks, Network Hardware, Network Software, Reference Models, Example Networks. The Theoretical Basis for Data Communication, Guided Transmission Media, Wireless Transmission, The Public Switched Telephone Network,

Unit – II: The Data Link Layer & The Medium Access Control Sub-layer: **12 Hrs**

Data Link Layer Design Issues, Error Detection and Correction, Sliding Window Protocols.
The Channel Allocation Problem, Multiple Access Protocols, Ethernet, Data Link Layer Switching.

Unit – III: The Network Layer: **12 Hrs**

Network Layer Design Issues, Routing Algorithms, Congestion Control Algorithms, Quality of Service Internet Working, Network Layer in the Internet.

Unit – IV: The Transport Layer: **12 Hrs**

The Transport Service, Elements of Transport Protocols, Congestion Control Algorithms, The Internet Transport Protocols: UDP, The Internet Transport Protocols: TCP.

Unit – V: The Application Layer: **12 Hrs**

DNS – The Domain Name System, Electronic Mail, The World Wide Web, Real Time Audio & Video, Content Delivery & Peer-to-Peer.

Prescribed Text Book:

1. Andrew S. Tanenbaum, "Computer Networks", Fifth Edition, Pearson Education.

Reference Books:

2. Bhushan Trivedi, Computer Networks , Oxford University Press
3. James F.Kurose, Keith W.Ross, "Computer Networking", Third Edition, Pearson Education
4. Behrouz A Forouzan, "Data Communications and Networking", Fourth Edition, TMH (2007).
5. Kurose & Ross, "COMPUTER NETWORKS" – A Top-down approach featuring the Internet", Pearson Education – Alberto Leon – Garciak.

Student Activity:

1. Study the functioning of network devices available in your organization .
2. Prepare a pictorial chart of LAN connections in your organization

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COMPUTER SCIENCE	**CSC-601(EL-B)**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PAPER – VII** **Max. Marks 75**

Model Paper **COMPUTER NETWORKS**

NO Of Hours:3 **No Of Credits: 3** **Pass Marks 30**

Section- A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5*5=25M**

1. What is Network? Write about Wireless Network?
2. Describe Time Division Multiplexing?
3. Write a short note on Framing?
4. Write about Manchester Encoding?
5. Describe Fragmentation
6. Write about Store and Forward Packet Switching?
7. Write about UDP?
8. Describe Domain Name System and Domain Name Space?

Section- B

Answer **FIVE**Questions. Each Question carries **TEN** Marks **5*10=50M**

9. Explain about OSI Reference Model?
10. Explain about different types of Guided Transmission Media?
11. What is Sliding Window Protocols? Explain One Bit Sliding Window Protocol.
12. Explain about Spanning Tree Bridges and Remote Bridges?
13. What is Routing Algorithm? Explain about any Three Routing Algorithms
14. Explain about Network layers in the Internet
15. What is TCP Protocol? Write about how to connect TCP Establishment
16. Explain about World Wide Web

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COMPUTER SCIENCE	**CSC-602(CL-A)**	**2018-'19**	**B.Sc.(MPCs,MCCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Syllabus **FOUNDATION OF DATA SCIENCE** **[Cluster A]**

Course Objective:

Modern scientific, engineering, and business applications are increasingly dependent on data, existing traditional data analysis technologies were not designed for the complexity of the modern world. Data Science has emerged as a new, exciting, and fast-paced discipline that explores novel statistical, algorithmic, and implementation challenges that emerge in processing, storing, and extracting knowledge from Big Data

Unit – I: Introduction to Data Science **12 Hrs**

Introduction to Data Science: Data science process – roles, stages in data science project – working with data from files – working with relational databases –exploring data – managing data – cleaning and sampling for modelling and validation –introduction to No SQL.

Unit – II: Modelling Methods **12 Hrs**

Modelling Methods: Choosing and evaluating models – mapping problems to machine learning, evaluating clustering models, validating models – cluster analysis – Kmeansalgorithm, Naïve Bayes Memorization Methods – Linear and logistic regression –unsupervised methods.

Unit – III: Introduction to R Language **12 Hrs**

Introduction to R Language: Reading and getting data into R – ordered and unordered factors – arrays and matrices – lists and data frames – reading data from files – probability distributions – statistical models in R - manipulating objects – data distribution.

Unit – IV: Map Reduce **12 Hrs**

Map Reduce: Introduction – distributed file system – algorithms using map reduce, Matrix-Vector Multiplication by Map Reduce – Hadoop - Understanding the Map Reduce architecture - Writing Hadoop Map Reduce Programs - Loading data into HDFS – Executing the Map phase - Shuffling and sorting - Reducing phase execution.

Unit – V: Delivering Results **12 Hrs**

Delivering Results: Documentation and deployment – producing effective presentations– Introduction to graphical analysis – plot() function – displaying multivariate data – matrix plots – multiple plots in one window - exporting graph - using graphics parameters. Case studies.

Reference Books

1.Nina Zumel, John Mount, "Practical Data Science with R", Manning Publications, 2014.
2.Jure Leskovec, AnandRajaraman, Jeffrey D.Ullman, "Mining of Massive Datasets", Cambridge University Press, 2014.
3.Mark Gardener, "Beginning R - The Statistical Programming Language", John Wiley & Sons, Inc., 2012.
4.W. N. Venables, D. M. Smith and the R Core Team, "An Introduction to R", 2013.
5.Tony Ojeda, Sean Patrick Murphy, Benjamin Bengfort, AbhijitDasgupta, "Practical Data Science Cookbook", Packt Publishing Ltd., 2014.

Student Activity:

1. Collect data from any real time system and create clusters using any clustering algorithm
2. Read the student exam data in R perform statistical analysis on data and print results.

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COMPUTER SCIENCE	CSC-602(CL-A)	2018-'19	B.Sc.(MPCs,MCCs)

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model Paper **FOUNDATION OF DATA SCIENCE** **[Cluster A]**

Section-A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5 X 5=25M**

1. Write about working with data from files?
2. Describe Transaction statements in NoSQL.
3. Write about Memorization methods.
4. Write about Unsupervised methods.
5. Write about data distributed.
6. Describes Haddop
7. Write about Shuffling and sorting.
8. How to Exporting Graphs.

Section-B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. **5 X 10=50M**

9. Write about Data exploring, Data Managing , Data Cleaning
10. Explain about data science process roles
11. Write about Clustering models and validating models.
12. Explain about Linear and logistic regression.
13. Write about types of arrays along with Matrix multiplication program in R.
14. Explain about List and data frames.
15. Write a simple Hadoop Map Reduce Program with proper explanation
16. What is plot() function ? How can we display multivariate data?

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COMPUTER SCIENCE	**CSC-602 (CL-B)**	**2018-'19**	**B.Sc.(MPCs,MCCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Syllabus **BIG DATA TECHONOLOGY** **[Cluster A]**

Course Objective

The Objective of this course is to provide practical foundation level training that enables immediate and effective participation in big data projects. The course provides grounding in basic and advanced methods to big data technology and tools, including MapReduce and Hadoop and its ecosystem

Unit-I: Introduction to Big Data **12 Hrs**

Introduction to Big Data: Introduction – distributed file system – Big Data and its importance, Four V's in bigdata, Drivers for Big data, Big data analytics, Big data applications. Algorithms using map reduce, Matrix-Vector Multiplication by Map Reduce.

Unit-II: Introduction Hadoop **12 Hrs**

Introduction Hadoop : Big Data – Apache Hadoop & Hadoop EcoSystem – Moving Data in and out of Hadoop – Understanding inputs and outputs of MapReduce - Data Serialization.

Unit- III : Hadoop Architecture **12 Hrs**

Hadoop Architecture: Hadoop Architecture, Hadoop Storage: HDFS, Common Hadoop Shell commands , Anatomy of File Write and Read., NameNode, Secondary NameNode, and DataNode, Hadoop MapReduce paradigm, Map and Reduce tasks, Job, Task trackers - Cluster Setup – SSH & Hadoop Configuration – HDFS Administering – Monitoring & Maintenance.

Unit-IV: Hadoop Ecosystem and Yarn **12 Hrs**

Hadoop Ecosystem And Yarn :Hadoop ecosystem components - Schedulers - Fair and Capacity, Hadoop 2.0 New Features- NameNode High Availability, HDFS Federation, MRv2, YARN, Running MRv1 in YARN.

Unit-V: Hive and Hiveql, Hbase **12 Hrs**

Hive And Hiveql, Hbase:-Hive Architecture and Installation, Comparison with Traditional Database, HiveQL - Querying Data - Sorting And Aggregating, Map Reduce Scripts, Joins & Subqueries, HBase concepts- Advanced Usage, Schema Design, Advance Indexing - PIG, Zookeeper - how it helps in monitoring a cluster, HBase uses Zookeeper and how to Build Applications with Zookeeper.

Reference Books

1. Boris lublinsky, Kevin t. Smith, Alexey Yakubovich, "Professional Hadoop Solutions", Wiley, ISBN: 9788126551071, 2015.
2. Chris Eaton, Dirk deroos et al. , "Understanding Big data ", McGraw Hill, 2012.
3. Tom White, "HADOOP: The definitive Guide" , O Reilly 2012.
4. Vignesh Prajapati, "Big Data Analytics with R and Haoop", Packet Publishing 2013.
5. Tom Plunkett, Brian Macdonald et al, "Oracle Big Data Handbook", Oracle Press, 2014.
6. Jy Liebowitz, "Big Data and Business analytics",CRC press, 2013.

Student Activity:

1. Collect real time data and justify how it has become Big Data
2. Reduce the dimensionality of a big data using your own map reducer

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SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model Paper **BIG DATA TECHONOLOGY** **[Cluster A]**

Section-A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. 5 X 5=25M

1. Explain about Distributed file system?
2. Explain about Big data applications?
3. Explain Data Serialization?
4. Explain Moving Data in Hadoop?
5. Write a short note on Task trackers?
6. Explain Secondary Name Node?
7. Explain about Hadoop 2.0 New Features?
8. Explain Joins & Sub queries?

Section -B

Answer **FIVE** Questions. Each Question carries **TEN Marks**. 5 X 10=50M

9. What is Big data? And explain Four V's in big data?
10. What is Big data analytics?
11. What is Hadoop? Explain the Inputs and Outputs of map Reduce?
12. Explain Apache Hadoop and Hadoop Eco System?
13. Explain the Hadoop architecture?
14. Explain common Hadoop Shell Commands?
15. What is Hadoop ecosystem? Explain about components?
16. Explain the Hive Architecture and HS Installation?

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COMPUTER SCIENCE	**CSC-602(CL-C)**	**2018-'19**	**B.Sc.(MPCs,MCCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Syllabus COMPUTING FOR DATA ANALYTICS [Cluster A]

Course Objectives
The objective of this course is to teach fundamental concepts and tools needed to understand the emerging role of business analytics in Organizations.

Unit – I: Data Analytics Life Cycle **12 Hrs**

Data Analytics Life Cycle: Introduction to Big data Business Analytics – State of the practice in analytics role of data scientists - Key roles for successful analytic project - Main phases of life cycle - Developing core deliverables for stakeholders.

Unit – II: Statistics Sampling Techniques **12 Hrs**
Statistics Sampling Techniques : Data classification, Tabulation, Frequency and Graphic representation - Measures of central value - Arithmetic mean, Geometric mean, Harmonic mean, Mode, Median, Quartiles, Deciles, Percentile - Measures of variation – Range, IQR, Quartile deviation, Mean deviation, standard deviation, coefficient variance, skewness, Moments & Kurtosis.

Unit – III : Probability and Hypothesis Testing **12 Hrs**
Probability and Hypothesis Testing: Random variable, distributions, two dimensional R.V, joint probability function, marginal density function. Random vectors - Some special probability distribution - Binomial, Poison, Geometric, uniform, exponential, normal, gamma and Erlang. Multivariate normal distribution - Sampling distribution – Estimation - point, confidence – Test of significance, 1& 2 tailed test, uses of t-distribution, F-distribution, $\chi 2$distribution.

Unit – IV: Predictive Analytics **12 Hrs**
Predictive Analytics: Predictive modeling and Analysis - Regression Analysis, Multicollinearity, Correlation analysis, Rank correlation coefficient, Multiple correlation, Least square, Curve fitting and goodness of fit.

Unit – V: Time Series Forecasting and Design of Experiments **12 Hrs**
Time Series Forecasting And Design Of Experiments: Forecasting Models for Time series: MA, SES, TS with trend, season - Design of Experiments, one way classification, two way classification, ANOVA, Latin square, Factorial Design.

Reference Books:
1. Chris Eaton, Dirk Deroos, Tom Deutsch etal., "Understanding Big Data", McGrawHIll,2012.
2. Alberto Cordoba , "Understanding the Predictive Analytics Lifecycle", Wiley, 2014.
3. Eric Siegel, Thomas H. Davenport , "Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die", Wiley, 2013.
4. James R Evans, "Business Analytics – Methods, Models and Decisions", Pearson 2013.

Student Activity:
1. Collect data from any real time system and create clusters using any clustering algorithm
2. Read the student exam data in R perform statistical analysis on data and print results

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COMPUTER SCIENCE	**CSC-602 (CL-C)**	**2018-'19**	**B.Sc.(MPCs,MCCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model Paper COMPUTING FOR DATA ANALYTICS [Cluster A]

Section-A

Answer**FIVE** Questions. Each Question carries **FIVE** Marks. 5 X 5=25M

1. Describe Big data Business analytics
2. What are the roles for Successful Analytic Project
3. Write about frequency and Graphic representation
4. Describe Measures of variation
5. Write a short note on Tabulations
6. Describe sampling distribution
7. Explain Rank Correlation
8. Write about ANOVA

Section - B

Answer**FIVE** Questions. Each Question carries **TEN** Marks. 5 X 10=50M

9. Explain Main Phases of Life Cycle Analytical Project
10. Explain Developing core deliverables for stakeholders
11. Explain Arithmetic , Geometric & Harmonic mean
12. Explain about Coefficient variance
13. Explain Sampling distribution
14. Write about Two dimensional R.V
15. Explain about Regression Analysis
16. Explain forecasting models for time series

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COMPUTER SCIENCE	**CSC-603 (CL-A)**	**2018-'19**	**B.Sc.(MPCs,MCCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Syllabus **DISTRIBUTED SYSTEM** **[Cluster B]**

Course Objectives

1. To expose the fundamentals of distributed computer systems, assuming the availability of facilities for data transmission.
2. To discuss multiple levels of distributed algorithms, distributed file systems, distributed databases, security and protection

Unit-I: **12 Hrs**

Introduction to Distributed Computing Systems, System Models, and Issues in Designing a Distributed Operating System, Examples of distributed systems.

Unit-II: **12 Hrs**

Features of Message Passing System, Synchronization and Buffering, Introduction to RPC and its models, Transparency of RPC, Implementation Mechanism, Stub Generation and RPC Messages, Server Management, Call Semantics, Communication Protocols and Client Server Binding.

Unit-III: **12 Hrs**

Introduction, Design and implementation of DSM system, Granularity and Consistency Model, Advantages of DSM, Clock Synchronization, Event Ordering, Mutual exclusion, Deadlock, Election Algorithms.

Unit-IV: **12 Hrs**

Task Assignment Approach, Load Balancing Approach, Load Sharing Approach, Process Migration and Threads.

Unit-V: **12 Hrs**

File Models, File Accessing Models, File Sharing Semantics, File Caching Schemes, File Replication, Atomic Transactions, Cryptography, Authentication, Access control and Digital Signatures.

Reference Books

1.Pradeep. K. Sinha: " Distributed Operating Systems: Concepts and Design " , PHI, 2007.
2 .George Coulouris, Jean Dollimore, Tim Kindberg: " Distributed Systems" , Concept and Design, 3rd Edition, Pearson Education, 2005.

Student Activity:

1. Implementation of Distributed Mutual Exclusion Algorithm.
2. Create a Distributed Simulation Environment.

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COMPUTER SCIENCE	**CSC-603 (CL-A)**	**2018-'19**	**B.Sc.(MPCs,MCCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model Paper **DISTRIBUTED SYSTEM** **[Cluster B]**

Model Paper

Section -A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. 5 X 5=25M

1. Write short notes on distributed system?
2. What is work station Model?
3. Explain about RPC?
4. Explain Communication Protocols?
5. Write Advantages of DSM?
6. Describe Clock Synchronization
7. Write a short note on Thread
8. Explain Cryptography?

Section -B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. 5 X 10=50M

9. Explain different models in distributed System
10. Explain issues in distributed operating System
11. Explain Client Server Binding?
12. Explain Transparency of RPC in Distributed Systems
13. Explain Design and implementation of DSM system
14. Explain about deadlock?
15. Describe theLoad – Balancing Approach
16. Explain File Accessing model?

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COMPUTER SCIENCE	CSC-603 (CL-B)	2018-'19	B.Sc.(MPCs,MCCs)

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Syllabus **CLOUD COMPUTING** **[Cluster B]**

Course Objectives: The student will learn about the cloud environment, building software systems and components that scale to millions of users in modern internet, cloud concepts capabilities across the various cloud service models including Iaas, Paas, Saas, and developing cloud based software applications on top of cloud platforms.

Unit-I **12 Hrs**

Cloud Computing Overview – Origins of Cloud computing – Cloud components - Essential characteristics – On-demand self-service , Broad network access , Location independent resource pooling , Rapid elasticity , Measured service

Unit-II **12 Hrs**

Cloud scenarios – Benefits: scalability , simplicity , vendors ,security. Limitations – Sensitive information - Application development – Security concerns - privacy concern with a third party - security level of third party - security benefits Regularity issues: Government policies

Unit-III **12 Hrs**

Cloud architecture: Cloud delivery model – SPI framework , SPI evolution , SPI vs. traditional IT Model Software as a Service (SaaS): SaaS service providers – Google App Engine, Salesforce.com and google platfrom – Benefits – Operational benefits - Economic benefits – Evaluating SaaS Platform as a Service (PaaS): PaaS service providers – Right Scale – Salesforce.com – Rackspace – Force.com – Services and Benefits

Unit-IV **12 Hrs**

Infrastructure as a Service (IaaS): IaaS service providers – Amazon EC2 , GoGrid – Microsoft soft implementation and support – Amazon EC service level agreement – Recent developments – **Benefits Cloud deployment model** : Public clouds – Private clouds – Community clouds - Hybrid clouds - Advantages of Cloud computing

Unit-V **12 Hrs**

Virtualization: Virtualization and cloud computing - Need of virtualization – cost , administration , fast deployment , reduce infrastructure cost - limitations
Types of hardware virtualization: Full virtualization - partial virtualization - para virtualization
Desktop virtualization: Software virtualization – Memory virtualization - Storage virtualization – Data virtualization – Network virtualization Microsoft Implementation: Microsoft Hyper V – Vmware features and infrastructure – Virtual Box - Thin client
Reference Books

1. Cloud computing a practical approach - Anthony T.Velte , Toby J. Velte Robert Elsenpeter TATA McGraw- Hill , New Delhi - 2010

2. Cloud Computing: Web-Based Applications That Change the Way You Work and Collaborate Online - Michael Miller - Que 2008

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SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model Paper **CLOUD COMPUTING** **[Cluster B]**

Section -A

Answer **FIVE**Questions. Each Question carries **FIVE** Marks. **5 X 5=25M**

1. What are the components of Cloud Computing?
2. Write about Broad-Network Access?
3. Write about Scalability?
4. Explain Government Policies?
5. Explain Google App Engine
6. Explain PaaS Service Providers?
7. Write about Amazon EC2?
8. Write about need of Virtualization?

Section -B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. **5 X 10=50M**

9. What is Cloud Computing? Explain about essential Characteristics?
10. Explain about Measured service in Cloud Computing?
11. Explain Limitations of Cloud Computing
12. Explain Security concern and Privacy concern with third party
13. Explain SPI Framework
14. Explain Evaluating SaaS?
15. Explain Cloud deployment model
16. Explain different types of virtualization?

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COMPUTER SCIENCE	CSC-603 (CL-C)	2018-'19	B.Sc.(MPCs,MCCs)

SEMESTER – VI PAPER – VIII Max. Marks 75

Syllabus **GRID COMPUTING** **[Cluster B]**

Course Objectives:

The student will learn about the Grid environment, building software systems and components that scale to millions of users in modern internet, Grid concepts capabilities across the various Grid services..

Unit-I: Concepts and Architecture **12 Hrs**

Concepts And Architecture :Introduction-Parallel and Distributed Computing-Cluster Computing-Grid Computing- Anatomy and Physiology of Grid- Web and Grid Services-Grid Standards - OGSA-WSRF - Trends, Challenges and applications.

Unit- II : Grid Monitoring **12 Hrs**

Grid Monitoring :Grid Monitoring Architecture (GMA) - An Overview of Grid Monitoring Systems- R-GMA –Grid ICE – MDS- Service Level Agreements (SLAs) -Other Monitoring Systems- Ganglia, Grid Mon, Hawkeye and Network Weather Service.

Unit-III: Grid Security and Resource Management **12 Hrs**

Grid Security and Resource Management: Grid Security-A Brief Security Primer-PKI-X509 Certificates-Grid Security-Grid Scheduling and Resource Management, Grid way and Grid bus Broker-principles of Local Schedulers- Overview of Condor, SGE, PBS, LSF -Grid Scheduling with Qo**S.**

Unit-IV Data Management and Grid Portals **12 Hrs**

Data Management And Grid Portals :Data Management-Categories and Origins of Structured Data-Data Management Challenges-Architectural Approaches-Collective Data Management Services-Federation Services-Grid Portals-Generations of Grid Portals.

Unit-V Grid Middleware **12 Hrs**

Grid Middleware: List of globally available Middleware's - Case Studies-Recent version of Globus Toolkit and gLite - Architecture, Components and Features. Features of Next generation grid.

Reference Books

1. Ian Foster, Carl Kesselman, The Grid 2: Blueprint for a New Computing Infrastructure, Elsevier Series, 2004.

2. Vladimir Silva, Grid Computing for Developers, Charles River Media, January 2006.

3. Parvin Asadzadeh, Rajkumar Buyya, Chun Ling Kei,Deepa Nayar, and Srikumar Venugopal, Global Grids and Software Toolkits: A Study of Four Grid Middleware Technologies, High Performance Computing : Paradigm and Infrastructure, Laurence Yang and Minyi Guo (editor s), Wiley Press, New Jersey, USA, June 2005.

Student Activity:

1. Implement and analyze any one Grid Resource Sharing algorithm.
2. List out various security issues with Grid

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COMPUTER SCIENCE	**CSC-603 (CL-C)**	**2018-'19**	**B.Sc.(MPCs,MCCs)**

SEMESTER – VI **PAPER – VIII** **Max. Marks 75**

Model Paper **GRID COMPUTING** **[Cluster B]**

Section-A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5 X 5=25M**

1. Explain Cluster computing?
2. Explain Grid services?
3. Write about SLAs?
4. Explain about MDS?
5. Explain Grid security?
6. Write about Grid Scheduling with QoS?
7. Explain the Generations of Grid Portals?
8. What are the features of Next Generation Grid?

Section -B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. **5 X 10=50M**

9. What is Grid Computing? Explain the Parallel and Distributed Computing?
10. Explain about Grid Standards and Applications?
11. Explain Grid Monitoring Architecture?
12. Explain Ganglia, Grid Mon and Hawkeye Services?
13. Explain Grid scheduling and Resource Management?
14. Explain about Grid way and Grid Bus Broker?
15. Explain Categories and Origins of structured Data Management?
16. Explain list of globally available Middleware's?

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COMPUTER SCIENCE	**CSC PROJ-602P**	**2018-'19**	**B.Sc.(MPCs)**

SEMESTER – VI **PROJECT(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.

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.

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college within the jurisdiction of Krishna University A.P, India.
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COMPUTER SCIENCE	CCSC 505C	2018-'19	B.Com.(C.A.)

SEMESTER – V PAPER – V Max. Marks 75

Syllabus **PROGMAMMING IN C**

NO Of Hours: 5No Of Credits: 3 **Pass Marks 30**

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 – File used in C Program – Compiling andExecuting 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 505C**	**2018-'19**	**B.Com.(C.A.)**

SEMESTER – V **PAPER – V** **Max. Marks 75**

Model Paper **PROGMAMMING IN C**

Section- A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5*5=25M**

1. Write a short note on Algorithm?
2. Explain data types in C?
3. Explain Jump Statements?
4. Write a short note on 'if'- statements?
5. Explain Call by Value and Call by Reference
6. Describe recursive function with an example?
7. Explain one dimensional array with example?
8. Write about pointers

Section- B

Answer **FIVE** the Questions. Each Question carries **TEN** Marks **5*10=50M**

9. Explain different types of programming languages?
10. Explain about different Categories of Operators in 'C'?
11. Explain Decision Making Looping statements with examples?
12. Explain different categories of functions?
13. Explain about Storage Classes?
14. Write about two dimension arrays? Give an example program?
15. Explain briefly about String function in 'C'?
16. Difference between Structures and Unions?

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COMPUTER SCIENCE	CCSC 505C	2018-'19	B.Com.(C.A.)

SEMESTER – V PAPER – V Max. Marks 75 Pass Marks 30

Guidelines for paper setting **'PROGMAMMING IN C'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	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-505P	2018-'19	B.Com.(C.A.)

SEMESTER – V PAPER – I IIMax. Marks 50 Pass Marks 25

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	CCSC 506C	2018-'19	B.Com.(C.A.)

SEMESTER – V PAPER – VI Max. Marks 75

Syllabus **DATA BASE MANAGEMENT SYSTEMS**

NO Of Hours: 5No Of Credits: 3 **Pass Marks 30**

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's Outlibe 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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SEMESTER – V **PAPER – VI Max. Marks 75**

Model Paper **DATA BASE MANAGEMENT SYSTEMS**

NO Of Hours: 5No Of Credits: 3 **Pass Marks 30**

Section-A

Answer any **FIVE** Questions. Each question carries **FIVE** Marks **4x5=25M**

1. Explain the Components of Database System.
2. Explain Entity Relationship Model .
3. Write about Relational Set Operators.
4. Explain Integrity rules.
5. Describe BCNF.
6. Write about D Normalization.
7. Write about Special Functions.
8. Explain Stored Procedures.

Section-B

Answer any **FIVE** Questions. Each question carries **TEN** Marks **5X10=50M**

9. What is File? Explain the problems with File system
10. Explain any three different Data Models
11. Explain E.F.CODDs' rules.
12. Explain Extended Entity Relationship Model.
13. Explain the concept of Normal Forms.
14. Explain different join operators
15. Explain DDL and DML commands.
16. Explain about triggers.

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SEMESTER – V PAPER – VI Max. Marks 75 Pass Marks 30

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	2	2
Unit-3	2	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-506P	2018-'19	B.Com(CA)

SEMESTER – V **PAPER – IV** **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.

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.

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**	**2018-'19**	**B.Com.(CA)**

SEMESTER – V **PAPER – VIII** **Max. Marks 75**

Syllabus **WEB TECHNOLOGIES**

NO Of Hours: 5No of Credits: 3 **Pass Marks 30**

Unit -I Introduction to XHTML:

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:

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

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

XML: Introduction to XML, Basic XML, document type definition, XML Schema, Document object model, presenting XML, 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**	**2018-'19**	**B.Com(CA)**

SEMESTER – V **PAPER – VIII** **Max. Marks 75**

Model Paper **WEB TECHNOLOGIES**
No of Credits: 3 **Pass Marks 30**

Section-A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. 5 X 5=25M

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 arrays in Java Script
5. Describe Data Object
6. Write about Rollover buttons
7. Describe XML Elements
8. Write the syntax of EL and EL variables

Section-B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. 5 X 10=50M

9. Explain about hyper links? Write about how to link another pages
10. What is Form? Explain about forms with examples
11. What is CSS? How to design Cascading style sheet
12. Explain about Mathematical Functions
13. Explain about Regular Expressions
14. Write about Data validations in DHTML
15. Explain about Document Object Model
16. Explain about JSP Lifecycle with neat diagram

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COMPUTER SCIENCE	CCSC-507C	2018-'19	B.Com(CA)

SEMESTER – VI PAPER – VIII Max. Marks 75 Pass Marks 30

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	2	2
Unit-3	1	2
Unit-4	2	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	COM-CSC-605	2018-19	B.Com (C.A)

SEMESTER –VI **PAPER – IX** **Total: 60 Hrs**

Syllabus **TALLY**

Credits 3 **NO Of Hours 5** **Pass Marks 30**

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, 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, Dreamtech Press, 2000.
4. Tally 9.0, Google eBook, Computer World.
5. Vikas Gupta, Comdex Computer and Financial Accounting with Tally 9.0, 2007.
6. Tally ERP 9 Made Simple Basic Financial Accounting, BPB Publisher.
7. Avichi Krishnan, Tally ERP 9 for Real Time Accounting, Book Ganga.

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COMPUTER SCIENCE	**COM-CSC-605**	**2017-18**	**B.Com (C.A)**

SEMESTER –VI **PAPER – IX** **Total: 60 Hrs**

Model Paper TALLY

Credits 3 **NO Of Hours 5** **Pass Marks 30**

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5x5=25M**

1. Differentiate between Manual Accounting and Accounting Packages?
2. What are the features of Tally?
3. How to maintain account information? Explain
4. How to create a new group in Tally
5. Explain how to create a stock ledger?
6. How to display and alter a ledger?
7. Explain contra Voucher
8. Write a short note on Day Book

Section- B

Answer **FIVE**the Questions. Each Question carries **TEN** Marks 5 X 10=50M

9. Explain evolution of Tally and what are the features and advantages of Tally
10. Explain versions of Tally software
11. Explain about Gateway of Tally
12. Explain about Group and predefined Groups
13. Explain ledger creation
14. How to create a single and multiple ledgers
15. Explain different types of vouchers?
16. Explain how to generate the reports from Tally?

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COMPUTER SCIENCE	**CCSC-605CE**	**2018-19**	**B.Com (C.A)**

SEMESTER –VI **PAPER – IX** **Max. Marks 75** **Pass Marks 30**

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	2	2
Unit-3	2	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	COMCSC-605P	2017-18	B.Com.(C.A.)

SEMESTER – VI **PAPER – V** **Max. Marks:50**
Pass Mark: 25

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	**COM-CSC-606**	**2017-18**	**B.Com (C.A)**

SEMESTER –VI **PAPER – X** **Total: 60 Hrs**

Syllabus **E-COMMERCE**

Credits 3 **NO Of Hours 5** **Pass Marks 30**

Unit-I: **Introduction to E-Commerce**

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 Commerce

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

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:

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

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.

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COMPUTER SCIENCE	**COM-CSC-606**	**2017-18**	**B.Com (C.A)**

SEMESTER –VI **PAPER – X** **Total: 60 Hrs**
Syllabus **E-COMMERCE**

Credits 3 **NO Of Hours5** **Pass Marks 30**

Section-A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. **5*5=25M**

1. Explain Electronic data interchange?
2. Write about Value Chain Model
3. What are the characteristics of B2B Electronic Commerce
4. What is the role of software agents for B2B Electronic Commerce?
5. Write about applications of Intranet?
6. Explain the structure of Extranet?
7. Explain encryption policies?
8. Write about Internet protocols?

Section-B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. **5*10=50M**

9. What are the advantages and limitations of E-commerce?
10. Write Business Strategy in an Electronic age
11. Explain Electronic Data Interchange(EDI)
12. Explain different Models of B2B Electronic Commerce?
13. Explain the Architecture of Internet?
14. Explain Business Models of Extranet Applications?
15. Explain Ethical and Other public Policy Issues?
16. Explain about the future of EC

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COMPUTER SCIENCE	**COM-CSC-606**	**2017-18**	**B.Com (C.A)**

SEMESTER –VI **PAPER – X** **Max. Marks 75** **Pass Marks 30**

Guidelines for paper setting **'E-COMMERCE'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	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

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU.
An Autonomous college withinthe jurisdiction of Krishna University A.P, India.
(With Effect From Academic Year 2017-'18)

COMPUTER SCIENCE	**CCSC-607CE**	**2018-19**	**B.Com (C.A)**

SEMESTER –VI **PAPER – XI**

Syllabus **PHP& MY SQL**

Credits 5

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 UserDefined 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 Unsetting 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 MySQLi 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 Yourself, Pearson Education (2007).
2. Xue Bai Michael Ekedahl, The Web Warrior Guide to Web Programming, Thomson (2006).

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU.
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(With Effect From Academic Year 2017-2018)

COMPUTER SCIENCE	**COM-CSC-607**	**2017-18**	**B.Com (C.A)**

SEMESTER –VI **PAPER – XI** **Total: 60 Hrs**
Syllabus PHP & MYSQL

Credits 5 **NO Of Hours 5** **Pass Marks 30**

Section-A

Answer **FIVE** Questions. Each Question carries **FIVE** Marks. 5*5=25M

1. Explain about different data types available in PHP?
2. Define function? Explain how to call the function?
3. Write a short note on Creating Objects
4. Explain about date and time functions?
5. Write about Session Function?
6. Explain about cookies?
7. Explain about Reading from files?
8. Describe how to create the Record AdditionMechanism?

Section-B

Answer **FIVE** Questions. Each Question carries **TEN** Marks. 5*10=50M

9. Explain different types of Operators in PHP?
10. Explain flow control functions in PHP?
11. What is an Array? Explain about array related functions.
12. Explain different string functions in PHP?
13. Explain about how to create and access a form in PHP?
14. Describe the working with session variables?
15. Explain working with Directories?
16. Explain about how to insert and retrieve the data in PHP?

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES – VUYYURU.
An Autonomous college withinthe jurisdiction of Krishna University A.P, India.
(With Effect From Academic Year 2017-2018)

COMPUTEzR SCIENCE	COM-CSC-607	2017-18	B.Com (C.A)

SEMESTER –VI PAPER – XI Max. Marks 75 Pass Marks 30

Guidelines for paper setting **'PHP & MYSQL'**

Unit wise weightage of Marks

	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1	2	2
Unit-2	2	2
Unit-3	2	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

AG & SG SIDDHARTHA COLLEGE OF ARTS AND SCIENCES - VUYYURU.
An Autonomous college withinthe jurisdiction of Krishna University A.P, India.
(With Effect From Academic Year 2017-2018)

COMPUTER SCIENCE	**CCSC-607**	**2017-18**	**B.Com (C.A)**

SEMESTER –VI **PAPER – VI** **Total: 60 Hrs**

Lab List PHP, MySQL **Pass Marks 25**
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 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 demonstrate 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.

→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.
- 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.
- 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 is 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.

Evaluation of a student is done by the following procedurefor All II & III Year B.Sc. (MPCs) &B.Com.(C.A). For the Batch of Students Admitted from 2016-17.

Internal Assessment Examinations:

i) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment.

ii) Out of these 25 marks, 20 marks are allocated for announced internal tests. Two announced internal tests will be conducted and average of these two tests shall be deemed as the marks obtained by the student, remaining 5 marks are allocated on the basis of candidate's percentage of attendance.

Semester-End Examinations:

i) The maximum marks for Semester-End examinations shall be 75 marks and duration of the examination shall be 3 Hours.

ii) Semester-End examinations shall be conducted in theory papers and the practical papers are conducted at the end of every Semester for II & III B.Sc. (MPCs) only.

iii) 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.

iv) V semester end **C** practical examination are to be evaluated by Internal Examiners and Even semester **Tally** Practical examinations are to be evaluated by External Examiner forIII B.Com (Computers) students only.

Question paper guide lines for Practical Examinations at the end of Semesters III &IV
Two Practical Programs to be conducted out of 15 programs at the end of Semester III & IV
Practical Examination time 3Hrs and Maximum Marks 50
Scheme of valuation Semesters – II & IV B.Sc. (M.P.Cs), B.Com (Computers)

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

1. 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...
2. Discussed and empowered the HOD to suggest the panel of the paper setters and examiners to the controller of the examinations.
3. Nil.

Chairman

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

DEPARTMENT OF ECONOMICS

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

EC0-1

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 11-04-2018 in the Department of Economics.

Sri G.S.S.SINGH, HOD, Economics has Presided over the BOS meeting.

Members Present:

1) (G.S.S.SINGH)	Chairman	Head, Department of Economics AG & SG S Degree College of Arts & Science Vuyyuru-521165
2) (PROF.M.PRASADA RAO) 11/4/18	University Nominee	Prof. Department of Economics ANDHRA UNIVERSITY VISAKHAPATNAM 530003
3) (Dr.K.VENU MADHAVA RAO) 11/4/18	Academic Council Nominee	Head, Department of Economics A.N.R College GUDIVADA
4) (Smt.A.MADHAVI) 11/4/18	Academic Council Nominee	Lecturer in Economics V.S.R Govt. Degree College MOVVA
5) (Sri N. RAMA RAO)	Member	Lecturer in Economics AG & SG S Degree College of Arts & Science Vuyyuru-521165

Agenda for B.O.S Meeting

1. To recommend the syllabi for I and II SEMESTERS OF I Degree B.A,B.COM Economics papers Under CBC System for the Academic Year 2018 – 2019.
2. To recommend the syllabi for III and IV SEMESTERS OF II Degree B.A, Economics papers Under CBC System for the Academic Year 2018 – 2019.
3. To recommend the syllabus for V SEMESTER OF III Degree B.A, Economics paper Under CBC System for the Academic Year 2018 – 2019.
4. To recommend the Change the syllabus for VI SEMESTER OF III Degree B.A, Economics paper Under CBC System for the Academic Year 2018 – 2019.
5. To recommend to introduce the certificate course for II YEAR B.Sc Students in the IV Semester by The Department of Economics or Arts Departments.
6. To recommend the teaching and evolution methods under autonomous status.
7. Any other matter.

E6 - 2

RESOLUTIONS

1.It is resolved to continue the same syllabi under CBC system approved by the Academic Council of 2016 – 2017 for I and II Semesters of I Degree B.A and B.COM ECONOMICS papers.

2. Discussed and Recommended The Syllabi ,Model Question Papers Under CBC System and Guidelines to be followed by the Question paper Setters of III and IV Semesters of II Degree B.A Economics for the Approval of the Academic Council (enclosed) from the Academic year 2016-2017.

3.Discussed and Recommended The Syllabi ,Model Question Papers Under CBC System and Guidelines to be followed by the Question paper Setters of V of III Degree B.A Economics for the Approval of the Academic Council (enclosed) from the Academic year 2016-2017.

4. It is resolved to change in the syllabi of VI semester General Elective and Cluster Elective papers Under CBC system. To introduce A Project Work to be conducted instead of III Paper in the cluster of Economics Subject.

5. It is resolved to introduce a certificate /Value added course forII Bsc Studients by the Arts Departments.

6. It is resolved to follow the APSCHE syllabi Under CBCS for the Academic year2018-2019 and also resolved to follow the model question papers for the Academic year2018-2019.

7. Discussed and Recommended the Teaching and evaluation methods for approval of Academic Council.

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 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 regarding I &II Semesters.

II) Out of these 30 marks, 20 marks are allocated for internal tests, 5 Marks are allocated for Assignment for I&II 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.

III) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment regarding III &IVSemesters.

a) Out of these 25 marks, 15 marks are allocated for internal tests and 5 Marks are allocated for Assignment for III and IV 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.

IV) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment regarding V &VI Semesters. (A Project Work to be conducted instead of III Paper in the cluster of Economics Subject.The same pattern is also applicable to the project work paper in the cluster of Economics Subject under VI Semester)

a) Out of these 25 marks, 15 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 allocated for Assignment and remaining 5 marks are allotted for attendance regarding V and VI Semester end Examinations in the III B.A Economics Papers.

b) There is no Internal Assessment Examinations for the certificate course for the II B.Sc students(NON ARTS COURSE) in the IV Semester. This course is useful to the non arts students to improve their General knowledge and to appear the competitive Examinations.

C) Semester-End Examinations:

I) The maximum marks for I and II Semester-End examinations shall be 70 and duration of the examination shall be3Hours.

2) Semester-End examinations shall be conducted at the end of every semester.

3) The maximum marks for III, IV,V and VI Semester-End examinations shall be 75 and duration of the examination shall be3 Hrs.The maximum marks for certificate course shall be 50 and duration of the examination shall be 2 hours)

5) There are no changes in the syllabi of the 1st,2nd, 3rd, 4th and 5th semesters of the First, Second and Third BA,B.COM Economics Papers during the Academic Year 2018-19. There is change in the syllabi of VI semester General Elective and Cluster Elective papers. To introduce A Project Work to be conducted instead of III Paper in the cluster of Economics Subject.

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.

7) 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.

Chairman

Bo-3

I BA PROGRAMME - ECONOMICS SYLLABUS FOR THE YEAR(2018 – 2019)

(CBCS PATTERN)

FIRST YEAR BA – FIRST SEMESTER (CORE PAPER)

TITLE: MICRO ECONOMICS -1 Hours:5 Credits:4

MODULE -1:

Nature, Definition and Scope of economics –Wealth, welfare, Scarcity and modern definitions

MODULE -2

Methodology in economics-Micro and Macro, Static and Dynamic analysis; Normative and Positive science, Inductive and Deductive methods ; Partial and General Equlibrium.

MODULE -3:

Utility analysis :– Cardinal approach –The Law of Diminishing marginal utility-the Law of Equi-marginal utility-concept of consumer's surplus.

MODULE -4:

Demand analysis – Law of Demand – Elasticity of Demand – Measurement of elasticity of demand-Price, Income and Cross elasticities of Demand.

MODULE -5:

Ordinal approaches; Indifference curve analysis – Properties of Indifference curves – Price or Budget line – Equilibrium of the consumer with the help of Indifference curves-samuelson's revealed preference theory.

REFERENCES:

[Additional Input Underlined] Suggested Books: 1. R.G. lipsey and K.A.Chrysal – " ECONOMICS" Oxford University press, 10/e
2. P.A. Samuelson & W.D Nordhaus – " ECONOMICS" Tata mc.Graw Hill, 18/e, 2005
3. N.Gregory Mankiw – "Principles of Economics", Thompson, 4/e 2007
4. H.L. Ahuja – "Advanced Economic Theory", S Chand, 2004
5. M.L.Sethy – " Micro Economics", Laxmi Narayana Agarwal, 2007
6. D.M. Mithani & G.K Murthy – "Fundamentals of Business Economics", Himalaya Publishing, 2007
7. Telugu Academy Publications
8. AUSSDE – Study material
9. Bilas, A.-"Micro economic Theory", International Student edition, Mc. Graw Hill, 1971
10. Dr. N.Koti Reddy – "Dictionary of Economics, Samatha Publications, 2011.

ECO-4

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018 – 2019)

MODEL QUESTION PAPER

SEMESTER - I	COURSE CODE : ECO-101C
PAPER TITLE : MICRO ECONOMICS	

Duration : 3Hours Maximum marks : 70 Pass marks : 24 Marks

SECTION-A

Answer any TWO of the following questions. 2x5=10 Marks

1. modern definition
2. normative science
3. cordinal utility
4. Demand function

SECTION-B

Answer any FOUR of the following questions. 4x15 =60 M

5. discuss the nature, significance and scope of economics.
6. distinguish between micro and macro economics? Explain their usefulness.
7. what do you understand by the law of diminishing marginal utility ?explain by diagram and discuss its assumptions and limitations.
8. explain clearly the law of equi-marginal utility with sutabul examples and diagrams.
9. state the law of demand , why demand curve slope down words? are there any exceptions to it.
10. explain the concept of elasticity of deamand .how it is measured .
11. Show with the help of in difference curves how a consumer reaches equilibrium .
12. explain the Properties of difference curves.

EC0-5

The Guidelines to be followed by the question paper setters in MICRO ECONOMICS for the first semester - end exams (2018-2019)

PAPER TITLE : MICRO ECONOMICS

Paper- I Semester – I Maximum marks : 70 Duration : 3Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (20Marks)	1	1
Unit-2 (20Marks)	1	1
Unit-3 (35Marks)	1	2
Unit-4 (35Marks)	1	2
UNIT-5 (30Marks)	----	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 paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

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A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(AUTONOMOUS)

VUYYURU – 521165 - (2018 – 2019)

IB.COM GENERAL ---------- SEMESTER - I

DSC 3A -Business Economics-I ----- (CBE103GC)

No. of Hours per week: 5 Max.Marks:100

No. of Credits: 4

Unit-I- Introduction

Meaning and Definitions of Business Economics - Nature and scope of Business Economics- Micro and Macro Economics and their differences.

Unit-II- Demand Analysis

Meaning and Definition of Demand - Determinants of Demand -- Demand function – Law of demand- Demand Curve - Exceptions to Law of Demand.

Unit –III- Elasticity of Demand

Meaning and Definition of Elasticity of Demand – Types of Elasticity of Demand – Measurements of Price elasticity of demand – Total outlay Method – Point Method – Arc Method.

Unit – IV- Cost and Revenue Analysis

Classification of Costs – Total - Average – Marginal and Cost function – Long-run – Short-run – Total Revenue - Average revenue – Marginal Revenue.

Unit-V- Break-Even Analysis

Type of Costs – Fixed Cost – Semi-variable Cost – Variable Cost– Cost behaviour - Breakeven Analysis - Its Uses and limitations.

References:

1. S.Sankaran, Business Economics, Margham Publications, Chennai.

2. Business Economics - Kalyani Publications.

3. Business Economics – Himalaya Publishing House.

4. Aryasri and Murthy Business Economics , Tata McGraw Hill.

5. Business Economics, Maruthi Publication

EG-7

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

AUTONOMOUS

VUYYURU – 521165 - (2018 – 2019)

MODEL QUESTION PAPER

SEMESTER - I	COURSE CODE – CBE 103GC
PAPER TITLE : BUSINESS ECONOMICS – IB.COM GENERAL	

Duration : 3Hours Maximum marks : 70 Pass marks : 24M arks

SECTION-A

Answer any FOUR of the following questions. ---------- 4x5=20 M

1. Explain the differences between micro Economics and macro Economics.
2. Demand Function.
3. Types of Price elasticity of demand
4. Relationship between average cost and marginal cost.

SECTION- B

Answer any FOUR of the following questions. 4X15 = 60M

5. Explain the Nature and Scope of business Economics.
6. Explain the Importance of macro Economics.
7. Explain the types of demand with the help of Diagrams.
8. Explain the Law of demand and its exceptions.
9. Explain the measurement methods of elasticity of demand.
10. Explain the determinants of elasticity of demand.
11. Explain the nature of revenue curves in perfect competition and monopoly.
12. Explain the Breakeven analysis.

E6-8

The Guidelines to be followed by the question paper setters in BUSINESS ECONOMICS for the first semester - end exams (2018-2019)

PAPER TITLE : BUSINESS ECONOMICS – I B.COM GENERAL

paper- I Semester – I Maximum marks : 70 Duration : 3Hours

Weight age 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 (35Marks)	1	2
Unit-4 (20Marks)	1	1
Unit-5 (15Marks)	-------	1
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 paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

EC0-9

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018 – 2019)

I Year B. A. Programme (UG) Courses – Under CBCS

Semester – II. HOURS: 5 CREDITS: 4

Paper – II (Core Paper)

Micro Economics - Production and Price Theory

Module - 1

Production function-Concept of homogeneous production function-Cobb- Douglas Production function- Law of variable proportions-Law of Returns to Scale - Different Concepts of Costs – Explicit & Implicit, Opportunity, Total – fixed and Variable Costs, Marginal & Average Costs & its Relationship. Concept of Revenue – Total, Marginal & Average Revenue and Break – Even Point .

Module - 2

Analyse different types of Market structures - Perfect Competition - Price determination and equilibrium of firm and industry under perfect competition - Monopoly - Price determination - Price discrimination.

Module - 3

Monopolistic competition - price determination - Oligopoly - Kinked demand curve approach.

Module - 4

Marginal Productivity theory of distribution - Theories of wage determination Subsistence theory of wages, Standard of living theory of wages, Modern theory of wages Wages and collective bargaining - concept of minimum wage.

Module - 5

Theory of Rent: Ricardian theory of rent - Quasi rent concept of Alfred Marshall. Theories of Interest - Classical, Neo-classical and Keynes Liquidity Preference theory - Profit - dynamic, innovations, Risk and Uncertainty theories.

E6 -10

REFERENCES:

1. R.G. Lipsey and K.A.Chrystal - "Economics", Oxford University Press, 10/e, 2004.
2. P.A.Samuelson & W.D. Nordhaus-"Economics", Tata Mc.Graw Hill, 18/e, 2005.
3. N.Gregory Mankiw-"Principles of Economics", Thompson 2015.
4. H.L.Ahuja-"Advanced Economic Theory"' S.Chand, 2004.
5. M.L.Seth-"Micro Economics", Laxmi Narayana Agarwal, 2015.
6. Bilas, A.-"Micro Economic Theory", International Student Edition, Mc.Graw Hill, 1971.
7. Telugu Academy Publications
8. D.M. Mithani & G.K. Murty - Business Economics, Himalaya Publishing, 2015.
9. Bilas, A.-"Micro Economic Theory", International Student Edition, Mc.Graw Hill, 1971.

ECO-4

A.G & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (ATUONMOUS)

VUYYURU – 521165 – (2018-2019)

MODEL QUESTION PAPER

SEMESTER - II	COURSE CODE – ECO 201C
PAPER TITLE : MICRO ECONOMICS	

Duration : 3Hours Maximum marks : 70 Pass marks : 24 Marks

Section-A

Answer any TWO of the following Questions. 2x5=10 Marks

1. Features of perfect competition.
2. Features of Monopolistic competition.
3. Minimum wages.
4. Quasirent.

Section-B

Answer any FOUR of the following Questions. 4X15=60 Marks

5. Explain the law of variable proportions.
6. What are returns to scale? How do we arise? How do they differ from the law of variable proportions?
7. Explain how price is determined under perfect competition.
8. Define monopoly? How is price determined under monopoly?
9. What do you understand by monopolistic competition? How is price determined under it?
10. State and explain the marginal productivity theory of distribution and point out its limitations.
11. State and examine the Ricardian theory of rent.
12. Explain liquidity preference theory of interest. How is it an improvement over earlier theories of interest?

ECO-II

The Guidelines to be followed by the question paper setters in MICRO ECONOMICS for the SECOND semester - end exams (2018-2019)

PAPER TITLE : MICRO ECONOMICS

Paper- I Semester – II Maximum marks : 70 Duration : 3Hours

Weight age 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 (20Marks)	1	1
Unit-4 (20Marks)	1	1
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 paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

Eco-13

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)
VUYYURU – 521165 - (2018– 2019)

IB.COM GENERAL ---------- SEMESTER - II

DSC 3 B - Business Economics –II----------(CBE 203GC)

No. of Hours per week: 5 Max.Marks:100
No. of Credits: 4

Unit-I: Production and Costs : Techniques of Maximization of output, Minimization of costs and Maximization of profit - Scale of production - Economies and Dis-economies of Scale - Costs of Production – Cobb-Douglas Production Function.

Unit-II: Market Structure-I : Concept of Market - Market structure - Characteristics - Perfect competition -characteristics equilibrium price - profit maximizing output in the short and long run Monopoly- characteristics - Profit maximizing out-put in the short and long run - Defects of Monopoly – Distinction between Perfect competition and Monopoly.

Unit-III: Market Structure-II : Monopolistic Competition - Characteristics – Product differentiation - Profit maximization - Price and output in the short and long - run – Oligopoly - characteristics - Price rigidity - Kinked Demand Curve - Distribution - Concepts - Marginal Productivity - Theory of Distribution.

Unit-IV: National Income And Economic Systems : National Income - Definition Measurement - GDP - Meaning Fiscal deficit - Economic systems - Socialism - Mixed Economic System - Free Market economy.

Unit-V: Structural Reforms : Concepts of Economic liberalization, Privatization, Globalization - WTO Objectives Agreements - Functions - Trade cycles - Meaning - Phases - Benefits of International Trade - Balance of Trade and Balance of payments.

Reference Books:

1. Aryasri and Murthy, Business Economics, Tata McGraw Hill
2. H.L Ahuja, Business Economics, Sultan Chand & Sons
3. KPM Sundaram, Micro Economics
4. Mankiw, Principles of Economics, Cengage Publications
5. Mithani, Fundamentals of Business Economics, Himalaya Publishing House
6. DAR Subrahmanyam &V Hari Leela, A Text Book on Business Economics, Maruthi Publishers.
7. A.V. R. Chary, Business Economics, Kalyani Publishers, Hyderabad.

EC0-II

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

(AUTONOMOUS)

VUYYURU – 521165 - (2018 – 2019)

MODEL QUESTION PAPER

SEMESTER - II	COURSE CODE – CBE 203GC
PAPER TITLE : BUSINESS ECONOMICS – IB.COM GENERAL	

Duration : 3Hours Maximum marks : 70 Pass marks : 24

SECTION-A

Answer any TWO of the following questions. ---------- 2x5 = 10 M

1. Internal Economies.
2. Features of Perfect Competition.
3. Features of Oligopoly.
4. Socialism.

SECTION - B

Answer any FOUR of the following questions. ..... 4X15 = 60M

5. Explain the Economies of large scale production.
6. Explain the price determination under Perfect Competition.
7. Explain the price determination under Monopoly.
8. Explain the price determination under Oligopoly.
9. Explain the Marginal productivity theory of Distribution.
10. Explain the measurement methods of National Income.
11. Explain the phases of Trade cycles.
12. Explain the liberalization policy in india.

EC0-15

The Guidelines to be followed by the question paper setters in BUSINESS ECONOMICS for the Second semester - end exams (2018-2019)

PAPER TITLE : BUSINESS ECONOMICS – I B.COM GENERAL

Paper- I Semester – II Maximum marks : 70 Duration : 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 (35Marks)	1	2
Unit-4 (20Marks)	1	1
Unit-5 (30Marks)	--------	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 paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

E6-16

DSC 2 B -Business Economics

I B.Com (computers) ---- II SEMESTER (2018 – 2019)

w.e.f. 2015-16 (Revised in April, 2016)

No. of Hours per week: 5 **Max.Marks:100**

No. of Credits: 4

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: Definition - Determinants of Demand -- Demand function – Law of demand- Demand Curve - Exceptions to Law of Demand - Elasticity of Demand – Types of Elasticity of Demand – Measurements of Price elasticity of Demand :

Unit – III:- Cost and Revenue Analysis:-Classification of Costs – Total - Average – Marginal; Cost function – Long-run – Short-run – Total Revenue - Average revenue – Marginal Revenue - Production and Costs: Techniques of Maximization of output, Minimization of costs and Maximization of profit .

Unit-IV:- Market Structure: Concept of Market - Market structure - Perfect competition - characteristics - equilibrium price - Monopoly- characteristics - Defects of Monopoly – Distinction between Perfect competition and Monopoly - Monopolistic Competition – Characteristics-Product differentiation - Oligopoly - characteristics - Price rigidity.

Unit-V:- National Income And Economic Systems: National Income - Measurement - GDP -Growth Rates - Problems in Assessment - Economic Systems - Socialism - Mixed Economic System - Free Market Economy -

References:

1. S.Sankaran, Business Economics, Margham Publications, Chennai.
2. Business Economics - Kalyani Publications.
3. Business Economics – Himalaya Publishing House.
4. Aryasri and Murthy Business Economics , Tata McGraw Hill.
5. Aryasri and Murthy, Business Economics, Tata McGraw Hill
6. H.L Ahuja, Business Economics, Sultan Chand & Sons
7. Mankiw, Principles of Economics, Cengage Publications
8. Mithani, Fundamentals of Business Economics, Himalaya Publishing House
9. A.V. R. Chary, Business Economics, Kalyani Publishers, Hyderabad.DSC 3B: Enterprise Resource Planning

EC0-12

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)
VUYYURU – 521165 - (2018 – 2019)

MODEL QUESTION PAPER

SEMESTER - II	COURSE CODE – CBE 203C
PAPER TITLE : BUSINESS ECONOMICS – IB.COM COMPUTERS	

Duration : 3Hours Maximum marks : 70 Pass marks : 24

SECTION-A

Answer any FIVE of the following questions. **5x5 = 25 M**

1. Differences between Micro and Macro Economics.
2. Types of Demand.
3. AC&MC Relation
4. Features of Oligopoly.

SECTION - B

Answer any FOUR of the following questions. **4X15 = 60M**

5. Explain the Nature and Scope of Business Economics.
6. Explain the Law of Demand and its Exceptions.
7. Explain the Measurement Methods of Elasticity of Demand.
8. Explain the Short run cost curves with the help of Diagrams.
9. Explain the price determination under Perfect Competition.
10. Explain the price determination under Monopoly.
11. Explain the Measurement Methods of National Income
12. Explain the Features of Mixed Economy.

EC-18

The Guidelines to be followed by the question paper setters in BUSINESS ECONOMICS for the SECOND semester - end exams (2018-2019)

PAPER TITLE : BUSINESS ECONOMICS – I B.COM COMPUTERS DURATION : 3Hours

Weight age 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

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 15 marks in Section –B
- The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

E6 -19

A.G & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (ATUONMOUS)

VUYYURU – 521165 – (2018-2019)

B. A. ECONOMICS

II Year B. A. Programme (UG) Courses – Under CBCS

Semester – III Paper – III (Core Paper) HOURS: 5

CREDITS:4

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).

EC-20

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 Narayana Agarwal, 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.Mish ra & S.B.Mishra - "Insurance Principles & Practice" S.Chand 2012.
9. Bharati V.Pathak "The Indian Financial System Markets. Institutions & Services". Pearson 2008.
10. Telugu Academy Publication

EC0-21

B.A. ECONOMICS (CBCS) w.e.f 2018-19

II B.A. - SEMESTER -III
PAPER - 3 MACRO ECONOMICS - 1

Time: 3. hrs max. marks 75

Section A (5 X 5 = 25 Marks)

Answer any FIVE of the following:

1. Macro Economics
2. macro economic paradox
3. National Income
4. Percapital income
5. Say's law of market
6. Aggregate demand
7. Gresham's law
8. circulation of money

Section B (5X10= 50 Marks)

Answer any FIVE of the following

9. Define Macro Economics and Explain its Scope.

10. Distinguish between Micro Economics and Macro Economics.

11. What is National Income? What are various concepts of National Income?

12. Explain the methods of estimating National Income.

13. Explain say's law of markets and it's importance in the theory of employment.

14. state and explain consumption function. What are it's limitations and uses.

15. what is money? What are the functions of money.

16. critically examine the fisher's quantity theory of money.

EC-22

The Guidelines to be followed by the question paper setters in MACRO ECONOMICS for the Third semester - end exams (2018-2019)

PAPER TITLE : MACRO ECONOMICS

Paper- III Semester – III Maximum marks : 75 Duration : 3Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	2	2
Unit-2 (30Marks)	2	2
Unit-3 (15Marks)	1	1
Unit-4 (15Marks)	1	1
UNIT-5 (30Marks)	2	2
TOTAL - 120	40	80

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

EC -23

A.G & S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (ATUONMOUS)

VUYYURU – 521165 – (2018-2019)

B. A. ECONOMICS

II Year B. A. Programme (UG) Courses – Under CBCS

Semester – IV HOURS:5

Paper – IV (Core Paper) CREDITS:4

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.

E10-44

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 Narayana Agarwal, 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.Mish ra & S.B.Mishra - "Insurance Principles & Practice" S.Chand 2012.
9. Bharati V.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.,
17. New Delhi

ECO-25

II B.A. - SEMESTER -IV
PAPER - 4 MACRO ECONOMICS - II

Time: 3. hrs max. marks 75

Section A (5 X 5 = 25 Marks)

Answer any FIVE of the following:

1. Prosperity
2. Boom and depression
3. credit creation by commercial banks
4. Banker to the banks (RBI)
5. Definition of NBFIS
6. Types Of Debentures
7. Regional Trade
8. Balance of Trade

Section B (5X10= 50 Marks)

Answer any FIVE of the following:

9. What is a trade cycle? What are its Stages.

10. What are the measures to control business cycles?how far may be effective.

11. What are the functions of commercial banks.

12. explain the functions of the Reserve bank of India .

13. explain the concept and functions of non-banking financial institution (NBFIS)

14. Define Stock Market and explain its functions.

15. . Explain the Regional and international Trade.

16. Explain the comparative cost theory of international trade .

ECO-26

The Guidelines to be followed by the question paper setters in MACRO ECONOMICS for the Fourth semester - end exams (2018-2019)

PAPER TITLE : MACRO ECONOMICS

Paper- IV Semester – IV Maximum marks : 75 Duration : 3Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	2	2
Unit-2 (30Marks)	2	2
Unit-3 (15Marks)	1	1
Unit-4 (15Marks)	1	1
UNIT-5 (30Marks)	2	2
TOTAL - 120	40	80

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

EC-27

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018 – 2019)

B. A. ECONOMICS
III Year B. A. Programme (UG) Courses – Under CBCS
Semester – V
Paper – V (Core Paper)
Economic Development and Indian Economy

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. Ruddar Dutt 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.Hanumantha Rao & N.Venu Gopal (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

ECO-V8

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

MODEL QUESTION PAPER

III BA	SEMESTER - V	COURSE CODE – ECO-501C
PAPER TITLE : ECONOMIC DEVELOPMENT AND INDIAN ECONOMY		

Duration : 3Hours Maximum marks : 75 Pass marks : 30

SECTION-A

Answer any FIVE of the following questions. 5x5 = 25 M

1. Adam Smith's growth theory
2. Labour intensive
3. Population Dividend
4. Natural Resources
5. Types of Unemployment
6. Poverty
7. Pivatization
8. Globalisation

SECTION - B

Answer any FIVE of the following questions. 5X10 =50M

9. Critically examine the Ricardian theory of growth
10. Write an essay on Sustainable development
11. What are the basic features of Indian Economy
12. Write a note on the important demographic features of India
13. Explain the Composition and Trends in India's National Income.
14. What is Poverty? Mention the measures taken by the Government?
15. Write a note on Economic reforms in India
16. Briefly Explain the Foreign trade policy of India.

EL6 -99

The Guidelines to be followed by the question paper setters in ECONOMIC DEVELOPMENT AND INDIAN ECONOMY for the v semester - end exams (2018-2019)

PAPER TITLE : ECONOMIC DEVELOPMENT AND INDIAN ECONOMY –III BA

PAPER CODE – 501C

Paper- V Semester – V Maximum marks : 75 Duration : 3Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (15Marks)	1	1
Unit-2 (15Marks)	1	1
Unit-3 (30Marks)	2	2
Unit-4 (30Marks)	2	2
Unit-5 (30Marks)	2	2
TOTAL -120	40	80

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

EC -30

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018 – 2019)

B. A. ECONOMICS
III Year B. A. Programme (UG) Courses – Under CBCS
Semester – V
Paper – VI (Core Paper)
Indian and Andhra Pradesh Economy

Module – 1

Indian Agriculture - Importance of Agriculture in India - Agrarian structure and relationsFactors 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

REFERENCES:

1. Dhingra, I.C - "Indian Economy", Sultan Chand, 2014.

2. Ruddar Dutt 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.

EC0-31

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.Hanumantha Rao & N.Venu Gopal (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.

ECO →2

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

MODEL QUESTION PAPER

SEMESTER - V	COURSE CODE : ECO-502C
PAPER TITLE : INDIAN AND ANDHRA PRADESH ECONOMY --- III BA	

Duration : 3Hours Maximum marks : 75 Pass marks : 30

SECTION-A

Answer any FIVE of the following questions. 5x5=25M

1.Micro Finance.
2. Land Reforms.
3. Industrial policy 1956.
4.Balance of payments
5. Foreign Exchange Management Act.
6.Insurence
7. Objectives of File Year plans
8. Special Economic Zones.

SECTION-B

Answer any FIVE of the following questions 5X10=50M

9. Explain the importance of Agriculture in India
10.What are the sources of Rural Credit?
11. Write an essay on The Structure of growth of Indian Industry.
12.state the Industrial policy of 1991.
13.Write an essay on the Services Sector in India.
14. Review the disinvestment in India.
15.Review the performance of Five year plans in India.
16.Briefly Explain The Structure of AP Economy .

EL0 -33

The Guidelines to be followed by the question paper setters IN INDIAN AND ANDHRA PRADESH ECONOMY for the v semester - end exams (2018-2019)

PAPER TITLE : INDIAN AND ANDHRA PRADESH ECONOMY –III BA

PAPER CODE – 502C

Paper- V Semester – V Maximum marks : 75 Duration : 3Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	2	2
Unit-2 (30Marks)	2	2
Unit-3 (30Marks)	2	2
Unit-4 (15Marks)	1	1
Unit-5 (15Marks)	1	1
TOTAL - 120	40	80

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

ECO-34

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

B. A. ECONOMICS

III Year B. A. Programme; PAPER CODE : ECO-601C

(UG) Courses – Under CBCS Semester – VI Paper – VII-(A)

General 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

. 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

ECO -> 5

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

MODEL QUESTION PAPER

SEMESTER – VI G.E – VII-(A)	PAPER CODE : ECO-601C
PAPER TITLE : AGRICULTURAL ECONOMICS --- III BA	

Duration : 3Hours Maximum marks : 75 Pass marks : 30

SECTION-A

Answer any FIVE of the following questions. 5x5=25M

1.
2.
3
4.
5.
6.
7.
8.

SECTION-B

Answer any FIVE of the following questions **5X10=50M**

9.
10.
11.
12
13.
14.
15.
16.

ECO-336

The Guidelines to be followed by the question paper setters IN for AGRICULTURAL ECONOMICS in the VI semester - end exams (2018-2019)

PAPER TITLE - AGRICULTURAL ECONOMICS III BA

PAPER CODE : ECO-601C

Paper- VII-(A) Semester – VI Maximum marks : 75 Duration : 3Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	2	2
Unit-2 (15Marks)	1	1
Unit-3 (15Marks)	1	1
Unit-4 (30Marks)	2	2
Unit-5 (30Marks)	2	2
TOTAL - 120	40	80

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

EC6 -3A

A.G & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

B. A. ECONOMICS

III Year B. A. Programme (UG) Courses – Under CBCS

Semester – VI; PAPER CODE : ECO-602CE

Paper – VIII-A; Cluster Elective–A: Agribusiness

Paper VIII-A-1: Agribusiness Environment in Andhra Pradesh

Module-1 Role of agriculture in development process in Andhra Pradesh vis-à-vis other developed states. Economy wide effects of agriculture in Andhra pradesh through trickle down effects. Backward and forward linkages of agriculture with rest of economy.

Module-2 Agricultural finance-importance in modern agriculture- performance of agricultural finance in Andhra Pradesh -problems of agricultural finance – Inter linkages of agricultural credit and other input markets and product markets.

Module-3 Dynamics of agriculture-crop (horticulture, field crops), sector-livestock (poultry dairy and fisheries) sector and inter linkages among the sectors. Agribusiness sector in Andhra Pradesh-salient futures, constraints, sub sectors of agribusiness-input sector, production sector, processing sector.

Module-4 Growth performance of major agricultural commodities in Andhra Pradesh-production and processing trends in exports and imports of major agricultural commodities.

Module-5 Marketing policy- structure of agri markets – regulated markets – need – activities – structure – APMC act – market legislations – Role of Farmer Groups in the marketing of Agricultural Produce.

References: 1. Adhikary M. 1986. Economic Environment of Business. S. Chand & Sons.

2. Aswathappa K. 1997. Essentials of Business Environment. Himalaya Publ.

3. Francis Cherunilam 2003. Business Environment. Himalaya Publ.

4. Agarwal Raj, 2001, Business Environment, Excel Books, New Delhi.

ECO-602

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

MODEL QUESTION PAPER

SEMESTER – VI (VIII-A-1)	PAPER CODE : ECO-602CE
PAPER TITLE : Agribusiness Environment in Andhra Pradesh –III B.A	

Duration : 3Hours Maximum marks : 75 Pass marks : 30

SECTION-A

Answer any FIVE of the following questions. 5x5=25M

1
2
3
4
5
6
7
8

SECTION-B

Answer any FIVE of the following questions 5X10=50M

9.
10.
11.
12.
13.
14.
15.
16.

ECO-39

The Guidelines to be followed by the question paper setters IN for Agribusiness Environment in Andhra Pradesh in the VI semester - end exams (2018-2019)

PAPER TITLE - Agribusiness Environment in Andhra Pradesh - III B.A

PAPER CODE : ECO-602CE

Paper- (VIII-A-1) Semester – VI Maximum marks : 75 Duration : 3Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	2	2
Unit-2 (30Marks)	2	2
Unit-3 (30Marks)	2	2
Unit-4 (15Marks)	1	1
Unit-5 (15Marks)	1	1
TOTAL - 120	40	80

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

ECO-603

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

B. A. ECONOMICS

III Year B. A. Programme (UG) Courses – Under CBCS

Semester – VI PAPER CODE : ECO-603CE

Paper – VIII-A; Cluster Elective – A: Agribusiness

Paper VIII-A-2: Agricultural Output Marketing

Module-1 Structure and Model of Agri-Marketing Organizations with functions: Functions of intermediaries, Marketing Practices in Primary and secondary and terminal market, Regulated markets, co-operative marketing.

Module-2 Marketing costs and margins, Marketing Finance. Marketing Structure of Major agricultural commodities, food grains: Rice, and Maize. Cash Crops; Cotton, Oil Seeds, Vegetables and Fruits, Milk, Meat and Poultry products.

Module-3: Problems and Challenges in Agriculture Marketing - Market Yards - Support prices - Rural Warehousing.

Module-4: State Intervention in Agricultural Marketing, Role of Various agencies (Andhra Pradesh Agro, MARKEED, State Department, and FCI, Tobacco Board, Cotton Corporation) and its impact on market efficiency. Agriculture Price Commission.

Module-5: Inter-regional and international trade in agriculture; emerging scenario of international trade in agricultural commodities; concept of terms of trade and balance of payments,. WTO and Indian agriculture with special reference to Andhra Pradesh .

References: 1. C.S.G.Krishnamacharyulu & Lalitha Ramakrishnan, "Rural Marketing: Text and Cases", Pearson Education, New Delhi.

2. Awadhesh Kumar Singh & Satyaprakash Pandey, Rural Marketing: Indian Perspective, New Age International Publishers, New Delhi.

3. Mamoria, C.B. & Badri Vishal: Agriculture Problems in India

4. Arora, R.C., "Integrated Rural Development", S. Chand Limited, New Delhi.

5. Gopalaswamy, T.P., "Rural Marketing: Environment, Problems and Strategies, Vikas Publishing House Pvt. Ltd., New Delhi.

6. Bedi & Bedi, "Rural Marketing", Himalaya Publishing House, New Delhi

ECO-III

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165 (2018– 2019)

MODEL QUESTION PAPER

SEMESTER – VI (VIII-A-2)	PAPER CODE : ECO-603CE
PAPER TITLE : Agricultural Output Marketing –III B.A	

Duration : 3Hours Maximum marks : 75 Pass marks : 30

SECTION-A

Answer any FIVE of the following questions. 5x5=25M

1.
2.
3.
4.
5.
6.
7.
8.

SECTION-B

Answer any FIVE of the following questions 5X10=50M

9.
10.
11.
12.
13.
14.
15.
16.

ECO-402

The Guidelines to be followed by the question paper setters IN for Agricultural Output Marketing in the VI semester - end exams (2018-2019)

PAPER TITLE - Agricultural Output Marketing – III B.A

PAPER CODE : ECO-603CE

Paper- (VIII-A-2) Semester – VI Maximum marks : 75 Duration : 3Hours

Weight age for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (30Marks)	2	2
Unit-2 (15Marks)	1	1
Unit-3 (15Marks)	1	1
Unit-4 (30Marks)	2	2
Unit-5 (30Marks)	2	2
TOTAL - 120	40	80

- Each Short answer question carries 5 marks in Section –A
- Each Essay question carries 10 marks in Section –B

The Question paper setters are requested to cover all the topics in the syllabus stipulated as per the Weight age given by us.

EC0 -43

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)

VUYYURU – 521165 (2018– 2019)

VI SEMESTER ECONOMICS CLUSTER PAPER- 3 i.e, Project Work

PAPER CODE :-604CE

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

23rd April, 2018

Eng-1

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 23-04-18 in the English Language Laboratory at 10:30 am.

Ms G.Soni ... Presiding

Members Present:

1)..... **(G.Soni)**	Chairman	Head, Department of English AG & SG S Degree College Vuyyuru-521165
2)..... **(Dr.M.Koteswara Rao)**	University Nominee	Assistant Professor, Department of English Krishna University, Machilipatnam.
3)..... **(Sri P.Gopichand)**	Academic Council Nominee	Associate Professor, Department of English JKC College, Guntur.
4)..... **(Dr.G.Srilatha)**	Academic Council Nominee	Head, Department of English PG Centre, PB Siddhartha College of Arts & Science, Vijayawada.
5)..... **(B.Bulli Babu)**	Member	Lecturer in English AG & SG S Degree College Vuyyuru-521165

Agenda for B.O.S Meeting of General English for I, II & III SEMESTERS for the Academic Year 2018-19

1. To recommend syllabi for 1st and 2nd semesters of I Degree students of all disciplines for the Academic Year 2018-19.
2. To recommend the Model Question Papers of 1st and 2nd semesters of I Degree of all disciplines for the Academic Year 2018-19.
3. To recommend the Guidelines to be followed by the question paper setters in General English for the 1st and 2nd semester-end exams of I Year students of all disciplines
4. To recommend syllabi for 3rd Semester of II Degree students of all disciplines for the Academic Year 2018-19.
5. To recommend the Model Question Paper of 3rd semester of II Degree of all disciplines for the Academic Year 2018-19.
6. To recommend the Guidelines to be followed by the question paper setters in General English for the 3rd semester-end exam of II Year students of all disciplines.
7. To recommend the teaching and evaluation methods to be followed under Autonomous status.
8. To introduce Certificate Course on "Competitive English" for the III year students of 6th Semester.
9. Any suggestions regarding Certificate/Add-on Courses, Seminars, Workshops, Guest Lectures and student competitions to be organized.
10. Any other matter.

RESOLUTIONS

1. Discussed and recommended the syllabus with a minor change for 1st Semester of I Year students of all disciplines for the approval of the Academic Council. **(The topic "Interrogatives and Question Tags" is removed in Unit – V of the Language Activity)**
2. Discussed and recommended the syllabus with a minor change for 1st Semester of I Year students of all disciplines for the approval of the Academic Council. **(In Unit – III, the second short story "The Loaded Dog by Henry Lawson" has been removed and it is replaced by the short story "What Men Live By" by Leo Tolstoy to promote morale of the student.**
3. Discussed and recommended the Question paper pattern with a minor change for the 1st & 2nd Semesters of I Year students of all disciplines for the approval of the Academic Council.

Change in the Question Paper Pattern of I Semester of I Year Students of all disciplines:

a) Question no.VI - 2 ½ marks are allotted to the odd sounds of the underlined letters of the given words instead of 5 marks.
b) Question no.VII - 2 ½ marks are allotted to the phonemic symbol of the underlined letters of the given words instead of 5 marks.
c) Question no.XI – Instead of Correction of Sentences (Common Errors), Verb forms are given for 5 marks.
d) Competitive pattern of English is being introduced in the question paper instead of traditional pattern.
e) Jumbled sentences into a meaningful order are removed in the external examination and it is included in the internal examination.

Change in the Question Paper Pattern of II Semester of I Year Students of all disciplines:

a) Question no.V (D), 1 mark is allotted to Simple, Compound and Complex sentences (Transformation)
b) Question no. VI – 5 Marks are allotted to the Question Tags.
c) Developing the given hints into a meaningful paragraph has been removed in the external examination pattern and included in the internal examination pattern.

4. Discussed and recommended the guidelines to be followed by the question paper setters of General English with the above said changes for 1st and 2nd semesters of first degree students of all disciplines for the approval of the Academic Council.
5. Discussed and recommended the syllabi with a minor change for 3rd semester of II Degree students of all disciplines for the approval of the Academic Council. **(In Unit – II of Poetry, Digging – Seamus Heaney is replaced by The Solitary Reaper – William Wordsworth. In Unit – V of Language Activity – Transformation of Sentences is replaced by Information Transfer for 5 Marks)**
6. Discussed and recommended the model question paper with a minor change for 3rd semester of II Degree students of all disciplines for the approval of the Academic Council.
   a) Question No.V – 5 Marks are allotted to Information Transfer instead of Transformation of Sentences.

7. Discussed and recommended the guidelines to be followed by the question paper setters of General English with the above said changes for 3rd semester of second degree students of all disciplines for the approval of the Academic Council.

8. 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).

(For the Batch of Students Admitted from 2018-2019 – UG)

Internal Assessment (IA)

- The maximum mark for IA is 30 and SE is 70 for theory.
- Each IA written examination is of 1 hour duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 40 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.
- 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, 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.

Evaluation of a student is done by the following procedure:

Internal Assessment Examinations for III Semester of II year students of all disciplines-2018-19.

i) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment.

ii) Out of these 25 marks, 15 marks are allocated for announced tests. 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 for Student Assignments, remaining 5 marks are allocated on the basis of candidate"s percentage of attendance.

iii) A student who scores 10 marks out of 25 marks is considered to pass the examination.

Eng-5

Semester-End Examination for the III Semester students of II Year – 2018-19.

i) The maximum marks for Semester-End examinations shall be 75 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.
iii) A student who scores 30 marks in Semester end examination of out of 75 marks is considered to pass the examination.

8. Discussed and recommended for 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 III 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.M.Koteswara Rao
(University Nominee)

Sri P.Gopichand
(Academic Council Nominee)

Dr.G.Srilatha
(Academic Council Nominee)

B.Bulli Babu
(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

Academic Year	2018-19
Title of the paper	General English
Semester	I
Course code	ENG 101C
CIA marks	25
Semester End Marks	75
Total Marks	100
Year of Introduction	2017-18
Year of Revision	2018-19
% of revision	20%

Academic Year 2018-19

Changes made in the syllabus

Semester-I General English

Course content suggested by APSCHE	Additions	Deletion
Unit-I **PROSE** 1. The Knowledge Society 2. The Language of African Literature		
Unit – II **POETRY** 1. The Road Not Taken 2. Night of the Scorpion		
Unit – III **SHORT STORY** 1. The Lost Child 2. The Loaded Dog	**Unit – III** What Men Live By - Leo Tolstoy	**Unit – III** The Loaded Dog – Henry Lawson
Unit – IV **ONE - ACT PLAY** The Merchant of Venice (Court Scene – Act IV, Scene -1)		
Unit – V **LANGUAGE ACTIVITY** 1. Classroom and Laboratory Activities i. Single Sentence Answer Questions on Vocabulary (spelling), sound (pronunciation), Phonetic Transcription, sense (meaning), and syntax (usage) 2. Classroom Activity i. Exercises in Articles and Prepositions ii. Exercises in Tenses iii.Question Tags		**Unit – V** Question Tags

1. The topic “Interrogatives and Question Tags” is removed in Unit – V of the Language Activity.
2. In Unit – III, the second short story “The Loaded Dog by Henry Lawson” has been removed and it is replaced by the short story “What Men Live By” by Leo Tolstoy to promote morale of the student.

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ENGLISH	ENG 101C	2018-2019	B.A,B.Com &B.Sc

SEMESTER – I (CBCS)

PAPER – I

Year-I **Semester-I** **Subject: General English** **Year 2018-19**

Unit – I
PROSE

1. The Knowledge Society (*from Ignited Minds*) - A.P. J. Abdul Kalam
2. The Language of African Literature (*from Decolonizing the Mind*)- Ngugi WaThiong"o

Unit – II
POETRY

1. The Road Not Taken - Robert Frost
2. Night of the Scorpion - Nissim Ezekiel

Unit – III
SHORT STORY

1. The Lost Child - Mulk Raj Anand
2. What Men Live By (Taken from the book „What Men Live By and Other Tales") –Leo Tolstoy

Unit – IV
ONE - ACT PLAY

The Merchant of Venice (Court Scene – Act IV, Scene -1) - William Shakespeare

Unit – V
LANGUAGE ACTIVITY

1. Classroom and Laboratory Activities
    i. Single Sentence Answer Questions on Vocabulary (spelling), sound (pronunciation), Phonetic Transcription, sense (meaning), and syntax (usage)
2. Classroom Activity
    i. Exercises in Articles and Prepositions
    ii. Exercises in Tenses

Note: In classroom instruction it may be ensured that the theoretical and practical Components of CSS-I complement the language activity in this semester.

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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

ENGLISH	ENG 101C	2018-2019	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 70**

The Pattern of the Question Paper for Semester – I: ENG 101C

Semester - I

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 passage (Unseen) and answer the questions: **5x1 = 5**
Passage from any Unseen text

VI. Find the ODD Sound from the given options **5 x ½ = 2½**

VII. Write the phonemic symbol of the underlined letters of the given words. **5 x ½ = 2½**

VIII. Identify the correct spelled word from the given options. **5x1= 5**

IX. Choose the correct response from the options given. **5x1=5**

X. Fill in the blanks with the suitable articles/prepositions. **5x1 = 5**

XI. Fill in any FIVE of the blanks with suitable verb forms given in brackets. **5x1 = 5**

(10 sentences to be given)

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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

ENGLISH	ENG 101C	2018-2019	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 70**

Model Question Paper

Section-A

I. Answer any TWO of the following in about 75 words each: 2x5 = 10

1. What are the benefits of efficient knowledge utilisation?

2. How does Kalam‟s model of a city differ from a conventional city?

3. Describe the daily routine of a child in the Kenya of Ngugi‟s childhood.

4. What does Ngugi propose to do to reverse colonial alienation?

II. Answer any TWO of the following in about 75 words each: 2x5 = 10

1. What do the two roads symbolise? Why did the traveller choose the road not taken?

2. "I took the one less travelled by,

   And that has made all the difference" - Explain

3. Bring out the Indianness of the poem, Night of the Scorpion.

4. Explain the theme of the poem "Night of the Scorpion".

III. Answer any TWO of the following in about 75 words each: 2x5 = 10

1. What are the things the child sees on his way to the fair? How do his parents respond to this?

2. How are the anxiety and fear of the lost child described?

3.What is the relevance to today's life of the three truths revealed in Tolstoy's "What Men Live By," and how is Man incomplete without them?

4. What is the theme of the short story "What Men Live By" by Leo Tolstoy?

IV. Answer any TWO of the following in about 75 words each: 2x5 = 10

1. What is Antonio‟s attitude throughout this scene?

2. What was Shylock adamant about and why?

3. What is the theme of Portia‟s first major speech addressed to Shylock?

4. How is Shylock utterly defeated at the end of this scene?

Section – B

V. Read the following passage and answer the questions. 5x1 = 5

There were only two Americans stopping at the hotel. They did not know any of the people who passed on the stairs on their way to and from their room. Their room was on the second floor facing the sea. It also faced the public garden and the war monument. There were big palms and green benches in the public garden. In the good weather there was always an artist with his easel. Artists liked the way the palms grew and the bright colors of the hotels facing the gardens and the sea. Italians came from a long way off to look up at the war monument. It was made of bronze and glistened in the rain. It was raining. The rain dripped from the palm trees. Water stood in pools on the gravel paths. The sea broke in a long line in the rain and slipped back down the beach to come up and break again in a long line in the rain. The motor cars were gone from the square by the war monument. Across the square in the doorway of the café a waiter stood looking out at the empty square.

1. Where were the Americans staying in the hotel?
2. In good weather who would you find in the garden?
3. Why did the Italians visit the place?
4. Who was looking at the empty square from the doorway?
5. Write down the antonym to the word „bright".

VI. Find the ODD Sound out. 5 x ½ = 2½

1. this	thought	think
2. tent	future	mat
3. smell	sugar	smile
4. man	fan	about
5. fill	fight	bright

VII. Write the phonemic symbol of the underlined letters of the given words.5 x ½ = 2½

1. Pleasure 2. University 3. Around 4. Judgement 5. Weather

VIII. Identify the correct spelled word from the given options. 5x1 = 5

1.	a. neccessary	b. necessary	c. necesary
2.	a. acomodation	b. accammadation	c. accommodation
3.	a. bussiness	b. buseness	c. business
4.	a. stationeri	b. stationary	c. stationerry
5.	a. asistant	b. assistant	c. assisstant

IX. Choose the correct response from the options given: 5x1=5

1. He hardly works. In this statement **„hardly"** means
    a. Very hard b. Rather c. Rarely d. Scarcely
2. It"s quite a distance. In this statement **„quite"** means
    a. Very far b. Moderately far c. Remarkably d. Completely
3. Whichever you **prefer** means:
    a. Whatever you like b. You have a choice c. You have d. It is binding on you
4. It is **terribly cold** today means
    a. It is terrifyingly cold b. It is not at all cold
    b. c. It is extremely cold d. It is not really cold
5. Cinema is an invention by Edison of modern science. Here **„invention"** means
    a. Discovery b. innovation c. creation d. development

X. Fill in the blanks with the suitable articles/prepositions. 5x1 = 5

I believe that my writing_____(at, in) Gikuyu language,_____(the, a) Kenyan language,_____(an, a) African language, is part and parcel of the anti-imperialist struggles of Kenyan and African peoples. In schools and universities our Kenyan languages – that is the languages_____(for, of) the many nationalities which make up Kenya – were associated _____ (from, with) negative qualities of backwardness, underdevelopment, humiliation and punishment.

XI. Fill in any FIVE of the blanks with suitable verb forms given in brackets. 5x1=5

a) When I saw her , she_____(play) chess.
b) If you go now you_____(catch) the train.
c) The train_____(leave) the station, before I reached there.
d) English_____(speak) all over the world.
e) If he_____(work) hard, he would have passed in first division.
f) Don"t disturb me, I_____(do) my homework.
g) Leela as well as Radha _____(be) here.
h) Pooja_____(sing) when I visited her.
i) Ravi usually_____(sit) at the back of the class.
j) My mother always_____(cook) food.

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Semester – II
COURSE STRUCTURE

Academic Year	2018-19
Title of the paper	General English
Semester	II
Course code	ENG 201C
CIA marks	30
Semester End Marks	70
Total Marks	100
Year of Introduction	2017-18
Year of Revision	2018-19
% of revision	10%

Academic Year 2018-19

Changes made in the syllabus

Semester-II General English

Course content suggested by APSCHE	Additions	Deletion
Unit – I **PROSE** 1. The Scientific Point of View 2.My Struggle for an Education **Unit – II** **POETRY** 1Ode to Autumn 2. I am not that Woman **Unit –III** **SHORT STORY** 1. The Boy Who Broke the Bank 2. Half a Rupee Worth **Unit – IV** **ONE ACT PLAY** The Proposal **Unit – V** **LANGUAGE ACTIVITY** **1. Classroom and Laboratory Activities** i. Transformation of Sentences (Voice, Speech, Degrees & Simple, Compound and Complex) ii. Dialogue Practice (Oral) iii. Listening Comprehension **2. Classroom Activity** i. Guided Composition ii. Dialogue Writing iii. Reading Comprehension	**Unit – V** Question Tags	Nil

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(An Autonomous college in the Jurisdiction of Krishna University, Machilipatnam.)

Accredited with "A" Grade by NAAC, Bengaluru

ENGLISH	ENG 201C	2018-2019	B.A,B.Com & B.Sc

GENERAL ENGLISH

SEMESTER – II (CBCS)

PAPER – I

Unit – I

PROSE

1. J. B.S Haldane: The Scientific Point of View
2. Booker T. Washington: My Struggle for an Education

Unit – II

POETRY

1. John Keats: Ode to Autumn
2. Kishwar Naheed : I am not that Woman

(from *An Anthology of Commonwealth Poetry* edited by C.D. Narasimhaiah)

Unit –III

SHORT STORY

1. Ruskin Bond: The Boy Who Broke the Bank
2. R. K. Narayan: Half a Rupee Worth

Unit – IV

ONE ACT PLAY

Anton Chekhov: The Proposal

Unit – V

LANGUAGE ACTIVITY

1. Classroom and Laboratory Activities

i. Transformation of Sentences (Voice, Speech, Degrees & Simple, Compound and Complex)
ii. Dialogue Practice (Oral)
iii Question Tags
iv. Listening Comprehension

2. Classroom Activity

i. Guided Composition
ii. Dialogue Writing
iii. Reading Comprehension

Reference Book:

Engage with English (for Semester-II) - Published by Orient Black Swan

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

(An autonomous college in the Jurisdiction of Krishna University, Machilipatnam.)

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ENGLISH	ENG 201C	2018-2019	B.A,B.Com & B.Sc

Time: 3 hours **GENERAL ENGLISH** **Max Mark: 70**

The Pattern of the Question Paper – I for Semester –II: ENG 201C

Section-A

I. Answer any TWO of the following in 75 words each: **2x5 = 10 M**
(4 paragraph questions from Prose)
II. Answer any TWO of the following in 75 words each: **2x5 = 10M**
(4 paragraph questions from Poetry)
III. Answer any TWO of the following in 75 words each: **2x5 = 10M**
(4 paragraph questions from Short Story)
IV. Answer any TWO of the following in 75 words each: **2x5 = 10M**
(4 paragraph questions from One-Act Play)

Section – B
(Language Activity)

V. Rewrite the following sentences as directed: **10 Marks**

a) Voice – 3 Marks (5 sentences to be given)
b) Direct and Indirect Speech -3 Marks (5 sentences to be given)
c) Degrees of Comparison -3 Marks (5 words to be given)
d) Simple, Compound and Complex Sentences -1 Mark (3 sentences to be given)

VI. Add Question Tags to any FIVE of the given sentences (8 Sentences to be given) **5 Marks**

VII. Read the given conversation and fill in the blanks **5 Marks**

VIII. Write a dialogue with FIVE exchanges on any ONE of the given contexts. **5 Marks**

(TWO contexts to be given)

IX. Read the paragraph and answer the questions from the given appropriate options. **5 Marks**

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SEMESTER – II (CBCS)
GENERAL ENGLISH, PAPER – I

Time: 3 hours **Max Mark: 70**

Model Question Paper

SECTION –A

I. Answer any TWO of the following in 75 words each. 2x5=10M

1. How does Haldane respond to the suggestion that man must „return to nature"?
2. Are Science and religion said to be contradictory in their thinking? Explain.
3. What did Booker have to go through in order to get admission to the Hampton Institute?
4. Why did Booker T. Washington feel that the examination he passed to gain admission into the Hampton Institute was the best one he ever passed?

II. Answer any TWO of the following in 75 words each. 2x5=10M

1. What are the special features of the autumn season according to John Keats?
2. Analyze the poem „Ode to Autumn" in your own words.
3. Examine the theme of captivity in the poem „I am not that Woman".
4. Is the poem „I am not that Woman" about empowerment? Illustrate.

III. Answer any TWO of the following in 75 words each. 2x5=10M

1. How did people react to the rumour of the imminent collapse of the bank? What did they tell each other? What new rumours started to spread?
2. Enumerate the steps taken by the bank manager to resolve the crisis.
3. Examine the theme of greed in the story „Half a Rupee Worth".
4. Describe the character of Subbaiah. Does it change over time?

IV. Answer any TWO of the following in 75 words each. 2x5=10M

1. Make a brief sketch of social life as you find in the play "The Proposal".
2. Sketch the character of Natalya Stepanovna.
3. Bring out the irony/satire and humour in the play „The Proposal".
4. Compare and Contrast the characters of Chubukov and Lomov.

V. Rewrite the sentences as directed.

A. Rewrite any THREE of the following sentences in the passive voice. 3x1=3M

1. My sister will cook dinner tonight.
2. Give him some money
3. The doctor asked us many questions
4. Did you understand the lesson?
5. When do they open the gate?

B. Rewrite any THREE of the following sentences in indirect speech 3x1=3M

1. You said to me, „You must give me your email id".
2. Sudha said to us, „Let us go to the Upstate emporium today".
3. Mohan said to me, „Don"t put your things here".
4. I said to her, „Will you teach me knitting?"
5. They said to me, „Oh, we are delighted to be in your class!"

C. Write the comparative and the superlative degrees to any THREE of the following words. 3x1=3M

1. dependent
2. many
3. heavy
4. low
5. ill

D. Transform any ONE of the following sentences. 1M

1. I have informed him that he has succeeded.(change into simple sentence)
2. She was too poor to educate her children. (change into compound sentence)
3. I have no money to lend you. (change into complex sentence)

VI. Add Question Tags to any Five of the following sentences. 5x1=5M

1. She draws a beautiful picture,_____?
2. We came home late last night,_____?
3. No one will hear us,_____?
4. Your uncle goes jogging every day,_____?
5. The authorities will see to the problem,_____?
6. You came by train,_____?
7. He never drinks alcohol,_____?
8. Nobody left a message, _____?

VII. Read the following conversation and fill in the blanks. 5M

(After finishing his work in the bank, Sunil returns to his office.)

Boss : I have been looking for you, Mr. Sunil. Where have you been?
Sunil : _____
Boss : The bank! What did you do there?
Sunil : _____
Boss : Did you deposit a large sum there?
Sunil : _____
Boss : I see. How are the people there'? Are they helpful?
Sunil : _____
Boss : Are you happy with the service you got?
Sunil : _____

VIII. Write a dialogue with FIVE exchanges on any one of the following contexts. 5M

You are a travel agent. A young couple visits your office and asks about arranging a visit to the Andaman Islands. They seek a number of clarifications before deciding on the trip. Write a dialogue.

Or

You are a sales assistant in a textile shop. A woman customer asks you to show her different kinds of sarees and to explain about their quality. Finally she leaves without buying anything. Write a dialogue.

IX. Read the following paragraph and answer the questions given below. Choose an appropriate option (i.e., A or B) from those given under each question and rewrite the entire sentence along with the answer. 5x1=5M

The Shah of Persia had heard of Birbal‟s intelligence and he wrote to Emperor Akbar requesting that Birbal be allowed to visit his court. Akbar was pleased because he was extremely proud of Birbal, and sent him to the Persian court in all splendour.

As soon as Birbal reached the Persian capital, the Shah sent for him. When he reached the royal audience chamber, he saw a semi-circular arrangement of seats. In each of t hem was a well-dressed regal figure and all of them were dressed exactly alike. Anyone of them could have been Shah of Persia. Birbal stopped for a while, then looked keenly, went and bowed the real Shah.

Taken aback by this, the Shah of Persia listened to Birbal‟s flowery address and replied in the same flowery language. Then he asked, “Birbal how did you recognize me?” Birbal replied toi the question by saying “Your Majesty! When I looked round, I found everyone looking at you.

Only you did not look at anyone. I knew at once who the real Shah of Persia was."The Shah bestowed upon Birbal the title Ocean of Intelligence by which men knew him ever after.

Questions:

1. The Shah of Persia invited Birbal because he wanted to
   a. test his immense wisdom b. test his well-known
2. In each seat sat a well-dressed regal figure. The phrase a regal figure here suggests
   a. a royal person b. a typical person
3. Emperor Akbar sent Birbal to Persia in splendour. The underlined phrase here means.
   a. in all glory and pomp b. in all majesty and glory
4. The Shah of Persia was taken aback by the way in which Birbal recognized him. In other words, he
   a. was perturbed b. was surprised
5. The author has used the flowery to show that Birbal
   a. was a handsome man b. was very learned

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Semester – III
COURSE STRUCTURE

Academic Year	2018-19
Title of the paper	General English
Semester	III
Course code	ENG 301C
CIA marks	25
Semester End Marks	75
Total Marks	100
Year of Introduction	2017-18
Year of Revision	2018-19
% of revision	20%

Academic Year 2018-19

Changes made in the syllabus

Semester-III General English

Course content suggested by APSCHE	Additions	Deletion
Unit – I **PROSE** *1.* Shyness My Shield (from *The Story of My Experiments with Truth)* 2. Why People Really Love Technology: An Interview with Genevieve Bell - Alexis C. Madrigal **Unit – II** **POETRY** 1. Once upon a Time 2. Digging **Unit – III** **SHORT STORY** 1. The Interpreter of Maladies 2. The Beloved Charioteer **Unit – IV** **ONE ACT PLAY** *Kanyasulkam,*(Acts I & II) - **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. Transformation of Sentences ii. Note Making iii. Report Writing iv. Writing for the Media	**Unit – II** The Solitary Reaper – William Wordsworth **Unit - V** Information Transfer	**Unit – II** Digging – Seamus Heaney **Unit-V** Transformation of Sentences

1. In Unit – II of Poetry, Digging – Seamus Heaney is replaced by The Solitary Reaper – William Wordsworth.
2. In Unit – V of Language Activity – Transformation of Sentences is replaced by Information Transfer for 5 Marks

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SEMESTER – III (CBCS)

PAPER – II

Year-II **Semester-III** **Subject: General English** **Year 2018-19**

Unit – I
PROSE
1. Shyness My Shield (from *The Story of My Experiments with Truth)* - M.K. Gandhi
2. Why People Really Love Technology: An Interview with Genevieve Bell - Alexis C. Madrigal

Unit – II
POETRY
1. Once upon a Time - Gabriel Okara
2. The Solitary Reaper – William Wordsworth

Unit – III
SHORT STORY
1. The Interpreter of Maladies - JhumpaLahiri
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
- ii. Note Making
- iii. Report Writing
- iv. Writing for the Media

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	2018-2019	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 75**

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. Write a report to the news paper on one of the following topics. **5M**

(Three topics to be given)

IX. Expand one of the following into a paragraph. **5M**

(Three proverbs to be given)

X. A. Brainstorm one of the topics and show it in a diagram. **5M**

(Three topics to be given)

B. Develop the given ideas into a paragraph of 100 words. **5M**

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ENGLISH	ENG 301C	2018-2019	B.A,B.Com & B.Sc

Time: 3 hours **Max Mark: 75**

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. What does Genevieve Bell say about women"s gadget adoption?
4. What does Genevieve Bell say about the different trajectories of technology adoption the globe over?

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. The reaper seemed to be happy with her life and fate. What are indications from the poem to this effect?
4. What is the poet"s mood as he listened to the reaper"s song?

III. Answer any TWO of the following in about 75 words each. 2x5= 10M

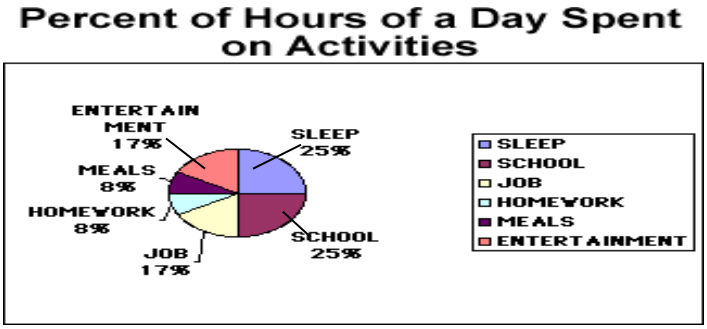
1. Write a note on Mr. Kapasi.
2. Sketch briefly the character of Mrs. Mina Das.
3. Give an account of mother"s nature and behaviour depicted in "My beloved Charioteer".
4. Explain the bond of mother and daughter in the context of "My beloved charioteer".

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**



i. Which two activities took up half of the time of the day?
ii. Which two activities took up the least amount of time?
iii. Which of the activities took up one fourth of the day?
iv. What percent of the day does homework take up?
v. 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. 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.

IX. 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.

X. Brainstorm one of the topics and show it in a diagram. 5M

1. Corruption 2. Yoga 3. Motherhood

XI. 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

23rd April, 2018

CSS-1

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 23-04-18 in the English Language Laboratory at 11:30 am.

Ms G.Soni ... Presiding

Members Present:

1)..... **(Ms.G.Soni)**	Chairman	Head, Department of English AG & SG S Degree College Vuyyuru-521165
2)..... **(Dr.M.Koteswara Rao)**	University Nominee	Assistant Professor, Department of English Krishna University, Machilipatnam.
3)..... **(Sri P.Gopichand)**	Academic Council Nominee	Associate Professor, Department of English JKC College, Guntur.
4)..... **(Dr.G.Srilatha)**	Academic Council Nominee	Head, Department of English PG Centre, PB Siddhartha College of Arts & Science, Vijayawada.
5)..... **(B.Bulli Babu)**	Member	Lecturer in English AG & SG S Degree College Vuyyuru-521165

Agenda for B.O.S Meeting of the Foundation course in Communication Skills and Soft Skills for II, III & IV SEMESTERS for the Academic Year 2018-19

1. To recommend syllabus for 2nd semester of I Degree students of all disciplines for the Academic Year 2018-19.
2. To recommend the Model Question Paper of CSS for 2nd Semester-End examination of I Degree of all disciplines for the Academic Year 2018-19.
3. To recommend the Guidelines to be followed by the question paper setters in CSS for the 2nd semester-end exams of First Year students of all disciplines
4. To recommend syllabi of CSS for 3rd and 4th semesters of II Degree students of all disciplines for the Academic Year 2018-19.
5. To recommend the Model Question Papers of CSS for 3rd and 4th semesters of II Degree of all disciplines for the Academic Year 2018-19.
6. To recommend the Guidelines to be followed by the question paper setters in CSS for the 3rd and 4th semester-end exams of II Year students of all disciplines.
7. To recommend the teaching and evaluation methods to be followed under Autonomous status.
8. Any suggestions regarding Certificate/Add-on Courses, Seminars, Workshops, Guest Lectures and student competitions to be organized.
9. Any other matter.

RESOLUTIONS

1. Discussed and recommended the syllabus prescribed by APSCHE with some changes for 2nd Semester of I year students of all disciplines for the approval of the Academic Council.

In Unit – III of Grammar part, Tense is replaced by Common Errors as it is covered in the I Semester of General English Syllabus and Articles & Prepositions are removed.

2.Discussed and recommended CSS201C—Communication and Soft skills-I, CSS301C-Communication and Soft skills-II, and CSS401C—Communication and Soft skills-III to be implemented for II,III and IV Semesters of all streams from the academic year 2018-19.

Changes Made in CSS - I

Part – A (Vocabulary Building)

1. One word substitutes for 5 Marks
2. Synonyms for 5 Marks
3. Antonyms for 5 Marks
4. Phrasal Verbs in own sentences for 5 Marks

Part – B (Subject-Verb agreement)

Sentences with Subject-Verb Agreement for 10 Marks

Part – C (Common Errors)

Common Errors for 5 Marks

Part – D (Listening Skills)

Essay question on Listening skills for 10 Marks

Part – E (Reading Skills)

Reading Comprehension (Interview Transcript) for 5 Marks

(Choice has been increased for better academic performance of our students)

2. Discussed and recommended the guidelines to be followed by the question paper setters of CSS for 2nd semester of first degree students of all disciplines for the approval of the Academic Council.

Changes Made in the question paper pattern in II Semester of CSS - I

A. Introduced the grammar topic ‑Words often confused‖ for 5 marks to promote competitive English in question no.2 of Part-A.
B. Instead of writing the phrasal verbs on own sentences options are given to complete the sentences in question no.5 of Part-A.
C. Types of verbs are given for matching in question no.6 of Part-B.

Note : A consolidated list of Grammar, Vocabulary, Words often confused and One-word substitutes are enclosed for the use of the Question paper setters.

3. Discussed and recommended the syllabi of CSS for 3rd and 4th semesters of Second Degree of all disciplines for the approval of the Academic Council.

4. Discussed and recommended the model question papers of CSS for 3rd and 4th semesters of Second degree of all disciplines for the approval of the Academic Council.

No changes are made in the question paper pattern in III Semester of CSS-II.

Changes Made in the question paper pattern in IV Semester of CSS – III

A. Paragraph writing on a given topic for 10 marks is removed and the topic is replaced by a proverb in question no. VI of Section-C and it is given for 5 marks.
B. Instead of summarizing a given paragraph a general question on paraphrasing or summary writing is given with internal choice for 5 marks in question no.VII of Section-C.

5. Discussed and recommended the guidelines to be followed by the question paper setters of CSS for 3rd and 4th semesters 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

6. 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.

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.

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. It has been suggested that the Certificate Courses may be made mandatory to all the students of all disciplines of I & 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.

8. 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.

CSS-5

BOS Members:

Dr.M.Koteswara Rao
(University Nominee)

Sri P.Gopichand
(Academic Council Nominee)

Dr.G.Srilatha
(Academic Council Nominee)

B.Bulli Babu
(Member)

Chairman

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CSS	CSS 201C	2018-2019	B.A,B.Com &B.Sc

COMMUNICATION AND SOFT SKILLS -1 (CSS-1)
FOUNDATION COURSE SYLLABUS
Semester – II

Unit I: Vocabulary Building
1a. Prefixes and Suffixes
1b. Conversion
1c. Compounding
1d. Analogy
2. One-Word Substitutes
3. Words Often Confused
4. Synonyms and Antonyms
5. Phrasal Verbs

Unit II: Grammar – 1
1. Types of Verbs
2. Subject-Verb Agreement

Unit III: Grammar – 2
1. Meanings of Modals
2. Common Errors (Correction of Sentences)

Unit IV: Listening Skills
1. The Importance of Listening
2. Types of Listening
3. Barriers/Obstacles to Effective Listening
4. Strategies for Effective Listening

Unit V: Reading Skills
1. Skimming
2. Scanning
3. Intensive Reading and Extensive Reading
4. Comprehension

Reference Book:
English in Use – A Course in Communication Skills and Soft Skills -1 published by Orient Black Swan

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CSS	CSS 201C	2018-2019	B.A,B.Com &B.Sc

COMMUNICATION AND SOFT SKILLS -1 (CSS-1)
FOUNDATION COURSE - Semester – II

The Pattern of the Question Paper for CSS -1

Time: 2 Hours **Maximum Marks: 50**

Part – A (Vocabulary Building)

1. Pick out one word substitute for the following expressions from the given options.

5 Marks

2. Choose the correct option from the brackets. (Words often confused) **5 Marks**

2. Match the synonyms in the two columns **5 Marks**

3. Pick out the suitable antonyms for the following words. **5 Marks**

4. Choose the correct Phrasal Verb from the given options **5 Marks**

Part – B (Subject-Verb agreement)

Match the given types of verbs in column _A' with column _B'. **5 Marks**

Part – C (Common Errors)

Correct any FIVE of the following underlined/italicized part of the given sentences (8 sentences to be given) **5 Marks**

Part – D (Listening Skills)

Answer any One Essay question on Listening skills (3 questions to be given) **10 Marks**

Part – E (Reading Skills)

Answer the following questions from the Reading Comprehension (Interview Transcript to be given – 5 questions) **5 Marks**

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CSS	CSS 201C	2018-2019	B.A,B.Com & B.Sc

COMMUNICATION AND SOFT SKILLS -1 (CSS-1)

FOUNDATION COURSE - Semester – II

Time: 2 Hours **Maximum Marks: 50**

Model Question Paper

Part- A

1. Pick out one word substitute for the following expressions from the given options. 5M

1. The way somebody looks or behaves
   a) Enigma b) Demeanour
2. One who pursues noble principles and goals
   a) Idealist b) Feminist
3. Longing for the past
   a) Progeny b) Nostalgia
4. One who always expects negative things to happen
   a) Optimist b) Pessimist
5. Something which cannot be expressed
   a) Indelible b) Inexpressible

2. Choose the correct option from the brackets given below. 5x1=5

1. I can resist anything_____(accept/except) temptation.
2. The loud noise from the motor_____(affect/effect) my hearing for days.
3. Please lay that pipe_____(beside / besides) the car in the garage.
4. Please do not_____(lie / lay) on that sofa.
5. The_____(stationary / stationery) store sells personalized envelopes.

3. Match the synonyms in the two columns 5M

A	B
Faith	Right
Dirty	Belief
Correct	Collect
Fraud	Filthy
Gather	Cheat

4. Pick out the suitable antonyms for following words 5M

1. Exclude
   a) Include b) Undo
2. Lend
   a) Convict b) Borrow
3. Timely
   a) Untimely b) Oversize
4. Clockwise
   a) Inactive b) Anticlockwise
5. Compulsory
   a) Guilty b) Optional

5. Choose the correct Phrasal Verb from the options given below. 5M

1. Quick!_____the bus. It's ready to leave.
   a. get on b. call for c. try on
2. I don't know where my book is. I have to_____it.
   a. take off b. look for c. put out
3. It's dark inside. Can you_____the light, please?
   a. switch on c. believe in c. made up
4. _____the form, please.
   a. called off b. keep up c. fill in
5. I need some new clothes. Why don't you_____these jeans?
   a. passed away b. carried away c. try on

PART – B

6. Match the following types of verbs in column 'A' with column 'B'. 5x1=5 M

A	B
1. Main Verb	A. **Does** Sam write all his own reports?
2. Auxiliary Verb	B. It's time to **get on** the plane.
3. Gerund	C. They **jumped.**
4. Phrasal Verb	D. Daniel quit **smoking** a year ago.
5. Intransitive Verb	E. My mother **cooks** well.

PART-C

7. Correct any FIVE of the following underlined/italicized part of the sentences. 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.
h) Don't make *noise*.

PART- D

8. Answer any ONE of the following questions in about 150 words. 10M

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?

PART – E

9. Read the following Transcript and answer the questions that follow. 5M

Interviewer: Could you tell us something about your background and how you reached the national level in cricket?

Dhoni: Well, I grew up in Ranchi, in the state of Jharkhand, where not much cricket is played. So it was rather difficult for me to reach the national level. Actually, I started off as a footballer, but after a couple of years I shifted to cricket, while I was still in school. I managed to get into the under-16 state team and then the under-19 team. I made my debut in the Ranji Trophy tournament in 1999-2000. My performance in domestic tournaments was quite consistent. Then, last year, I was selected for the India-A team that toured Kenya and Zimbabwe, and that was the turning point for me. I played well on that tour and later got into the Indian team on the tour of Bangladesh.

Interviewer: You are one of the hardest hitters of the ball in the game. What is the secret of _Dhoni Power‘?

Dhoni: I don‘t know if there is any secret. I seldom go to a gym for workouts. But may be the training I received as a footballer has helped.

Interviewer: What about the story of the 4 liters of milk that you are said to drink everyday?

Dhoni (laughing): I‘monkey afraid that\s a bit of an exaggeration. But yes, I do love milk and drink about a litre a day. Earlier, it used to be just plain milk, but now it‘s mostly milk with hot chocolate.

Interviewer: Not only do you hit those big sixes, but you are also an excellent runner between the wickets, in spite of the conditions being hot and humid. So are you a fitness freak?

Dhoni: Not really. I think it just comes naturally to me. You know, my family is from Almora, from the mountains of Uttaranchal. One has to be very fit to live there. I suppose physical fitness must be in my genes, although I have never actually lived in the mountains. But I am working hard on my fitness right now, following the training schedule given by Gregory King, our trainer.
Interviewer: What aspects of your game do you want to improve?
Dhoni: My batting as well as my wicket keeping. I would love to improve my wicket keeping, especially against the spinners. We have quality spinners in our team like Harbhajan and Anil Kumble, and it‘s really difficult to keep wickets when they are bowling. Soi that‘s one thing I must improve. And, of course, my batting. I have been shifted quite a lot in the batting order, from batting at number 6 or 7 to batting at number 3, or even opening the innings. So the more I play, the more I must get used to different batting slots. Lots of things are going on in my head…
Interviewer: How do you spend your day when you are not playing in matches?
Dhoni: Oh, I listen to a lot of music. I love music, you know. Then, I love motorbikes, I enjoy riding my motorbike. And I like playing computer games. I play a bit of badminton when I get time. But I love bikes more than anything else.

Questions:

a) Why was it difficult for Dhoni to find a place in the Indian cricket team?
b) When was Dhoni selected for a national team?
c) What makes Dhoni special as a cricketer?
d) What does Dhoni have to say about his batting?
e) What is Dhoni‘s favourite way of relaxing?

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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**	**2018-2019**	**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. Information Transfer
    - Tables
    - Bar Diagrams
    - Line Graphs
    - Pie Diagrams
    - Flow Charts
    - Tree Diagrams
    - Pictures

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

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CSS	CSS 301C	2018-2019	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. (5 Transcriptions to be given) **5x1=5M**

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. Study the given diagram and answer the questions that follow. **5x1=5M**
(5 questions related to the diagram)
(Table/Pie-Chart/Bar-Graph/Tree Diagram/Line Graph/Flow Chart/Picture… to be given)

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CSS	CSS 301C	2018-2019	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?

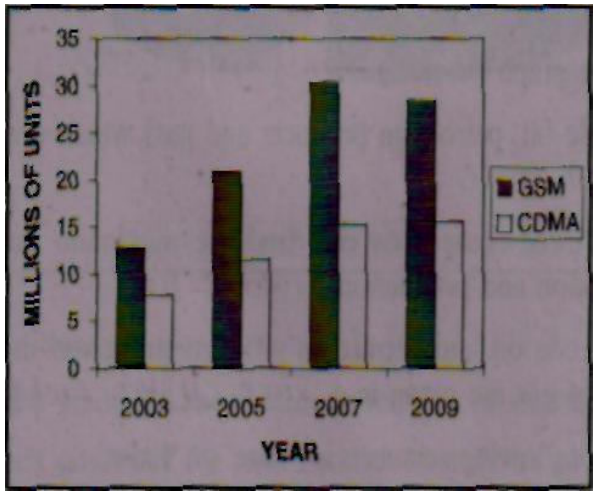
b. Prepare FIVE debate points for the topic –The Media is responsible for violence in society‖.
c. List out FIVE important skills needed in a group discussion.
d. List out any FIVE expressions one can use to perform different functions during a group discussion.

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. Study the graph given below and answer the questions that follow: **5x1=5M**

INDIAN MOBILE PHONES TECHNOLOGY FORECAST



1) What is this graph called as?
2) When were the least number of CDMA phones sold?
3) In which year is the maximum number of GSM phones expected to be sold?
4) Is the number of CDMA units increasing or decreasing between 2003 and 2007?
5) Which of the following statements is correct?
   i. The usage of CDMA phones is decreasing over the years.
   ii. The usage of GSM phones is increasing over the years.
   iii. The usage of GSM phones increased till 2007 and then it started to decrease.

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CSS	**CSS 401C**	**2018-2019**	**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

1. Paragraph Structure
2. Development of Ideas

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	2018-2019	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. Arrange the jumbled sentences into a meaningful paragraph **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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CSS	**CSS 401C**	**2018-2019**	**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. Arrange the jumbled sentences into a meaningful paragraph. **1X5=5M**

a. It contains, of course, the meanings of ‗difficult words'.
b. One of the most important reference books that you must possess is a dictionary.
c. The dictionary can be referred to for the various grammatical forms of words as well.
d. Every college dictionary should provide at least these four kinds of information about words, namely pronunciation, meaning, grammatical patterns and usage.
e. Finally, a good dictionary contains illustrative sentences or phrases, showing how words are actually used.

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

DEPARTMENT OF ENVIRONMENTAL STUDIES

2018-2019

BOARD OF STUDIES

Minutes of Meeting

23-04-2018

Minutes of the meeting of Board of studies in Environmental Studies for the Autonomous courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at *10.30 A.M on 23-04-2018* in the

Department of Environmental Studies

Sri R.V. Sivarao ..... ***Presiding***

Members Present:

1) R.V Siva Rao **(R.V. Sivarao)**	Chairman	Head, Department of Environmental Studies AG & SG S Degree College of Arts & Science Vuyyuru-521165
2) J.Navaneetha **(Dr.J.N. Lavanaya latha)**	University Nominee	Department of Bio-Technology Krishna University Machilipatnam

Agenda for B.O.S Meeting

1 .To recommend the syllabi for I, semester of I Degree B.A, B.com B.SC , BBA and ZPC Environmental Studies Paper Under CBC System for the Academic year 2018-2019.

2. To recommend the Teaching and Evaluation Methods to be followed under Autonomous Status.

3. Any other matter.

RESOLUTIONS

1). Discussed and Recommended The Syllabi, Model Question Papers Under CBC System and Guidelines to be followed by the Question paper Setters of I Semester of I degree B.A,B.COM , B.SC BBA and Z,P.C for the Approval of the Academic Council (enclosed) for the Academic year 2018 – 2019.

2). Discussed and Recommended the Teaching and evaluation methods for approval of Academic Council.

A) Teaching methods:
Besides the conventional methods of teaching, it is also resolved to use various other methods like Group discussions, Quiz, for the better understanding of the contents.
B) Evaluation of a student is done by the following procedure:

a) There is no Internal Assessment Examinations.

b) Semester-End Examinations:

i) The maximum marks for Semester-End examinations shall be 50 and duration of the examination shall be 2 Hours.

ii) Semester-End examinations shall be conducted at the end of I semester.

3) 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.

R.V. Siva Rao
Chairman

ENVIRONMENTAL STUDIES

2018-19

Common for BA/B.Com/BSc Programmes COURSE CODE:

ENS101Semester – I(Total 30 Hours)

Unit-I : Natural Resources:

Definition, scope and importance. Need for public awareness. Brief description of; Forest recourses: Use and over-exploitation. Deforestation; timber extraction, mining, dams. Effect of deforestation environment and tribal people Water resources: Use and over–utilization. Effects of over utilisation of surface and ground water. Floods, drought. Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources. Food resources: World food problems, Effects of modern agriculture; fertilizer-pesticide, salinity problems. Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Land resources: Land as resources, land degradation, man induced landslides, soil erosion and desertification

Unit-II : Ecosystems, Biodiversity and its conservation

Concept of an ecosystem Structure and function of an ecosystem Producers, consumers and decomposers Food chains, food webs and ecological pyramids Characteristic features of the following ecosystems:- Forest ecosystem, Desert ecosystem, Aquatic ecosystem. Value of biodiversity: Consumptive use, productive use. Biodiversity in India. Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts. Endangered and endemic species of India Conservation of biodiversity

Unit-III : Environmental Pollution

Definition Causes, effects and control measures of :- a. Air pollution b. Water pollution c. Soil pollution d. Noise pollution Solid waste management; Measures for safe urban and industrial waste disposal Role of individual in prevention of pollution Disaster management: Drought, floods and cyclones

Unit-IV : Social Issues and the Environment

From Unsustainable to Sustainable development Water conservation, rain water harvesting, watershed management. Climate change, global warming, ozone layer depletion, Environment protection Act Wildlife Protection Act, Forest Conservation Act

Unit-V : Human Population and the Environment

Population explosion, impact on environment. Family welfare Programme Environment and human health Women and Child Welfare Value Education Role of Information Technology in Environment and humanhealth.

Reference Books :

1. Environmental Studies by Dr.M.Satyanarayana, Dr.M.V.R.K.Narasimhacharyulu, Dr.G. Rambabu and Dr.V.VivekaVardhani, Published by Telugu Academy, Hyderabad.
2. Environmental Studies by R.C.Sharma, Gurbir Sangha, published by Kalyani Publishers.
3. Environmental Studies by Purnima Smarath, published by Kalyani Publishers.

AG&SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCES –AUTONOMOUS

VUYYURU-521165

SEMESTER –III **MODEL QUESTION PAPER** **COURSE CODE – ENE-301**

Common for BA/B.Com/BSc Programmes

PAPER TITLE: ENVIRONMENTAL EDUCATION

DURATION :2 HOURS **SECTION – A** **Max:50**

ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS **(4x5=20M)**

1. Environmental Education.
2. Bio-Diversity
3. Deforestation
4. Global warming.
5. Floods
6. Forest Resources
7. Environmental laws
8. Chipko Movement.

SECTION – B

ANSWER ANY THREE OF THE FOLLOWING QUESTIONS **(3x10=30M)**

9. Write an essay on Forest Resource?

10. Explain the Scope and importance of Environmental Studies

11. Give an account of Renewable Energy Resource?

12. Write an essay on Air Pollution?

13. What is Sustainable Development?

14. Give an Account on Environmental Acts?

ENTREPRENEURSHIP

Syllabus, For all Degree Programmes.

COURSE CODE: ENP403

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 International Publishers, New Delhi, 2011
6. Khanka, SS, Entrepreneurship Development, S. Chand, New Delhi.
7. Peter F. Drucker,Innovation and Entrepreneurship. 8. A.Sahay, M. S. Chhikara, New Vistas of Entrepreneurship: Challenges &Opportunities

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
(AUTONOMOUS)
(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

Paper code: HVPE101

SEMESTER –I

MODEL PAPER

HUMAN VALUES PROFESSIONAL ETHICS (HVPE)

LIFE SKILLS COURSES UNDER CBCS FRAMEWORK WITH EFFECT FROM 2020-21

DURATION: 2 HOURS **SECTION – A** **Max:50**

ANSWER ANY FOUR OF THE FOLLOWING QUESTIONS **(4x5=20M)**

1. Need for value education.
2. Process of value education.
3. Trust.
4. Samadhan .
5. Universal order.
6. Physical facilities.
7. Respect
8. Positive co-operation.

SECTION – B

ANSWER ANY THREE OF THE FOLLOWING QUESTIONS **(3x10=30M)**

9. Explain the basic Guidelines for value education?

10. Explain the classification of value education?

11. Explain the Harmony in the family

12. Explain the problems faced due to differentiation in relation?

13. Write about locality towards goals and objectives?

14. Write about professional integrity?

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU
(AUTONOMOUS)
(MANAGED BY SIDDHARTHA ACADEMY OF GENERAL & TECHNICAL EDUCATION VIJAYAWADA)

SEMESTER –I ***Paper code: HVPE101***

GUIDLINESS

HUMAN VALUES PROFESSIONAL ETHICS (HVPE)

LIFE SKILLS COURSES UNDER CBCS FRAMEWORK WITH EFFECT FROM 2020-21

Marks	UNIT-I	UNIT-II	UNIT-III
	Value Education	Harmony	Professional Ethics in Education
5Marks	2	5	1
10Marks	2	2	2
Weight age	30	45	25

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

DEPARTMENT OF HINDI

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

7th Meeting

Minutes of the meeting of Board of Studies in Hindi for t he Autonomous courses of A.G. & S.G. Siddhartha Degree College of arts & Science, Vuyyuru at 11-00 A.M. on 11-04-2018 in the Department of Hindi.

Members Present :

1.	P. Gangadhara Rao. P. Gangadhara Rao	Chariman	Head of the Department of Hindi. A.G. & S.G.S Degree college of Arts & Science, Vuyyuru.
2.	Prof. N. Satyanarayana	University Nominee	Head of the Department of Hindi. Andhra University, Visakhapatnam.
3.	Dr. P.V.D. Sree Devi	Academic Council. Nominee	Head of the Department of Hindi. Saptagiri Degree College, Vijayawada.
4.	P. Deva Raj Kumar	Academic Council Nominee	Head of the Department of Hindi. K.B.N. Degree College, Vijayawada

Agenda for BOS meeting

1. To discuss about the syllabi, Model question papers and guidelines of I and II semesters of I Degree in Hindi for the academic year 2018-19.
2. To discuss about the change of question papers of I and II semesters for the academic year 2018-19.
3. To discuss about the III semester syllabus for the academic year 2018-19.
4. To discuss about the evaluation ratio 70 : 30 for the I and II semesters of I Degree for the academic year 2018-19.
5. Any other matter.

Resolution

1. It is unanimously resolved that there is no change in the syllabus of I and II semesters of I Degree in Hindi for the academic year 2018-19.
2. It is unanimously resolved that there is no to change the question papers of I and II semesters of I Degree for the academic year 2018-19.
3. It is unanimously resolved that there is no change in the syllabus and the question paper of III semester for the academic year 2018-19.
4. It is unanimously resolved to follow the evaluation ratio of 70:30 (External and Internal) for the I and II semesters of I Degree for the academic year 2018-19.
5. NIL

P. Gangadhara Rao

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

An Autonomous College in the jurisdiction of Krishna University, Machilipatnam

Hindi	Hindi - 101C	2018-19	I Degree

SYLLABUS FOR B.A., B.COM., B.Sc.

I Semester - Hindi

Text Book	Gadya Sandesh
1. गद्य संदेश (Prose)	साहित्य की महत्ता सच्ची वीरता मित्रता
2. कथा लोक (Non-detailed)	मुक्तिधन गूदड़ साई उसने कहा था
3. व्याकरण (Grammar)	लिंग वचन काल वाच्य वाक्यों की शुद्धि
4. व्याकरण (Grammar)	शब्द प्रयोग कार्यालयी हिन्दी (पारिभाषिक शब्दावली अंग्रेजी से हिन्दी) विलोम शब्द
5. पत्र लेखन (Letter Writing)	व्यक्तिगत और सरकारी पत्र

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

An Autonomous College in the jurisdiction of Krishna University, Machilipatnam

Hindi	Hindi - 101C	2018-19	I Degree

MODEL QUESTION PAPER

Time : 3 Hours	I Semester	Max. Marks : 70
	Hindi	Min. Marks : 28

Section - A

1. *निम्न लिखित में से किन्हीं दो की संदर्भ सहित व्याख्या कीजिए।* 2 x 6= 12

   A. शरीर का खाद्य भोजनीय पदार्थ है और मस्तिष्क का खाद्य साहित्य ।

   B. वीर पुरूष का दिल सब का दिल हो जाता है,
   उसका मन सबका मन हो जाता है ।

   C. हमें उनका पल्ला उसी तरह पकडना चाहिए, जिस तरह सुग्रीव ने
   राम का पल्ला पकडा था ।

   D. अपनी भाषा का साहित्य ही जाति और स्वदेश की उन्नति का साधक है ।

2. *निम्न लिखित गद्यांशों में से किसी एक पाठ का सारांश लिखिकर उसकी विशेषताओं पर प्रकाश डालिए ।* 12

   A. साहित्य की महत्ता B. मित्रता

3. *निम्न लिखित कहानियों में से किसी एक कहानी का सारांश लिखकर उसकी विशेषताओं पर प्रकाश डालिए ।* 12

   A. गूदड साई B. उस ने कहा था

4. *निम्न लिखित में से किसी एक की टिप्पणी लिखिए ।* 8

   A. रहमान B. लहनासिंह

Section - B

सूचना के अनुसार बदलिए ।

5. निम्न में से किन्हीं चार का लिंग बदलिए । 4x1= 4

   A. शेर B. सुनार C. तपस्वी D. भिखारी

   E. मालिक F. मोर G. सदस्य H. छात्र

6. निम्न में से किन्हीं चार का वचन बदलिए । 4x1= 4

A. स्त्री B. गुडिया C. पुस्तक D. लिपि

E. कपडे F. धातुएँ G. अध्यापिका H. डाकू

7. किन्हीं पाँच का विलोम शब्द लिखिए । 5x1= 5

A. इहलोक B. कृतज्ञता C. आकाश D. राजा

E. असत्य F. रात G. अंधकार H. ज्ञान

I. पुण्य J. उत्थान

8. *सूचना के अनुसार बदलिए ।* 3x1= 3

A. कृष्ण कंस को मारता है । (भूतकाल में बदलिए)

B. सीता पाठ पढेगी । (वर्तमानकाल में बदलिए)

C. गोपाल ने आम खाया । (भविष्यत काल में बदलिए)

Section - C

9. *हिन्दी में अनुवाद कीजिए ।* 3x1= 3

A) Accommodation B) Administration

C) Authorised D) Casual

E) Circular F) Counter signature

10. *निम्न लिखित में से किसी एक पत्र लिखिए ।* 7

A. नौकरी के लिए आवेदन पत्र लिखिए

अथवा

B. परीक्षा शुल्क माँगते हुए अपने पिताजी के नाम एक पत्र लिखिए ।

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

An Autonomous College in the jurisdiction of Krishna University, Machilipatnam

Guidelines for I semester Hindi question paper for the Academic year 2018-19.

Time : 3 Hours	HIN - 101C	Max. Marks : 70
		Min. Marks : 28

GUIDE LINES

Note : The question paper setters are requested to .....

I. Keep the assignment strictly confidential.

II. Please go through the syllabus and the model question paper supplied.

Section - A

Q. 1 4 Annotations to be set from prose text book
lessons out of which 2 questions to be answered. 2 x 6=12

Q. 2 2 essays to be set from prose text book out of which 1 to be answered. 1 x 12=12

Q. 3 2 stories to be set from Non-detailed book out of which 1 to be answered. 1 x 12=12

Q. 4 2 short questions to be set from Non-detailed book out of which 1 to be answered. 8

Section - B

Grammar

Q. 5 Change the gender : 8 words to be set, out of which 4 to be answered. 4 x 1=4

Q. 6 Change of (Vachan) (Singular and plural) 4 x 1=4

Q. 7 Vilom shabd : 10 words to be set, out of which (Antonyms) 5 to be answered. 5 x 1=5

Q. 8 Change the sentences : 3 sentences to be set 3 to be answered. 3 x 1=3

Section - C

Translation and letter writing

Q. 9 Translation : English to Hindi from the syllabus.
6 words to be set out of which 3 to be answered. 1 x 3=3

Q. 10 Letter writing : Personal and official.
2 letters to be set out of which 1 to be answered. 7

I Semester

English to Hindi

Absence	-	अनुपस्थिति / गैरहाज़िरी
Acceptance	-	स्वीकृति
Accommodation	-	आवास
Acknowledgment	-	पावती
Ad-hoc	-	तदर्थ
Administration	-	प्रशासन
Affidavit	-	शपथ पत्र
Agreement	-	करार
Allotment	-	आबंटन
Allowance	-	भत्ता
Annexure	-	परिशिष्ट
Authorised	-	प्राधिकृत
Bilateral	-	द्विपक्षीय
Bipartite	-	उभयलक्षी
Bonafide	-	वास्तविका / यथार्थ
Casual leave	-	आकस्मिक छुट्टी
Charge sheet	-	आरोप पत्र
Circular	-	परिपत्र
Clarification	-	स्पष्टीकरण
Confidential	-	गोपनीय
Consolidated	-	समेकित
Counter signature	-	प्रंति हस्ताक्षर
Dearness allowance	-	महँगाई भत्ता

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

An Autonomous College in the jurisdiction of Krishna University, Machilipatnam

Hindi	Hindi - 201C	2018-19	I Degree

SYLLABUS FOR B.A., B.COM., B.Sc.

II Semester - Hindi

Text Book	Gadya Sandesh
1. गद्य संदेश (Prose)	1. संस्कृति और साहित्य का परस्पर संबंध 2. भारत एक है 3. ऐच.आइ.वी (एड्स)
2. कथा लोक (Non-detailed)	कथा लोक 1. जरिया 2. भूख हडताल 3. परमात्मा का कुत्ता
3. व्याकरण (Grammar)	1. शब्दों का प्रयोग 2. संधिविच्छेद 3. शुद्ध करके लिखना
4. अनुवाद (Translation)	हिन्दी से अंग्रेजी
5. पत्र लेखन (Letter Writing)	अधिकारिक पत्र

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

An Autonimous College in the jurisdiction of Krishna University, Machilipatnam

Hindi	Hindi - 201C	2018-19	I Degree

MODEL QUESTION PAPER

Time : 3 Hours	II Semester	Max. Marks : 70
	Hindi	Min. Marks : 28

Section - A

1. *निम्न लिखित में से किन्हीं दो की संदर्भ सहित व्याख्या कीजिए।* 2 x 6= 12

   A. यह मानी हुई बात है कि वेदों से भी बढकर प्राचीनतम ग्रंध अभी तक विश्व-भर में प्राप्त नहीं हुआ ।

   B. विचारों की तकता जाति की सबसे बढी एकता होती है ।

   C. इन दोनों रोगों केलिए समाज में नियमित और आवश्यक रूप से जागरूकता अभियान चलाने की आवश्यकता है ।

   D. संस्कृति समाज की जान है और उसकी शान भी है ।

2. *निम्न लिखित गद्यांशों में से किसी एक पाठ का सारांश लिखिकर उसकी विशेषताओं पर प्रकाश डालिए ।* 12

   A. संस्कृति और साहित्य का परस्पर संबंध B. भारत एक है

3. *निम्न लिखित कहानियों में से किसी एक कहानी का सारांश लिखकर उसकी विशेषताओं पर प्रकाश डालिए ।* 12

   A. जरिया B. भूख हडताल

4. *निम्न लिखित में से किसी एक की टिप्पणी लिखिए ।* 8

   A. नारायण राव का चरित्र चित्रण कीजिए ।

   B. जरिया कहानी का उद्धेश्य क्या है ?

Section - B

Grammar

सूचना के अनुसार बदलिए ।

5. **निम्न लिखित शब्दों में से पांच की संधि विच्धेद कीजिए ।** 5x1= 5

   A. महर्षि B. स्वागत C. मरणोन्मुख D. अन्तःपुर

   E. ज्ञानोदय F. वाग्देवी G. सच्चिदानंद H. प्राणेश्वर

   I. चिन्मय J. रामालय

6. **निम्न लिखित में से किन्हीं चार वाक्यों का शुद्ध करके लिखिए ।** 4x1=4

A. मोहन का घर में चार कमरा हैं ।

B. कृष्ण ने कंस को मारता है ।

C. वह उसका काम करता है ।

D. पेड में फल गिरता है ।

E. राम लंका पर चढाई किया ।

F. गोपाल ने किताब लाया ।

G. राजा दशरथ को चार पत्नी थे ।

7. **निम्न लिखित में से किन्हीं चार शब्दों का वाक्यों में प्रयोग कीजिए ।** 4x1=4

A. अज्ञानांधकार B. इकट्ठा करना C. हवन

D. बसर करना E. पथ-प्रदर्शक F. तिनके का सहारा

G. दृष्टि गोचर होना H. हिस्सा लेना

8. ***निम्न लिखित में से किन्हीं तीन का सही कारक चिन्हों से वाक्य पूरा कीजिए ।*** 3x1=3

A. मोहन ..... पत्र लिखा ।

B. पेड ..... फल गिरता है ।

C. कृष्ण ..... कंस मारा जाता है ।

D. हम ..... समाज की सेवा करनी चाहिए ।

E. बुराई ..... दूर रहना है ।

F. जयशंकर प्रसाद ..... घर ..... विद्या का अध्ययन किया था ।

Section - C

9. ***अंग्रजी में अनुवाद कीजिए ।*** 3x1=3

A. आबंटन B. स्वीकृति C. तदर्थ

D. वास्तविक E. स्पष्टीकरण F. महँगाई भत्ता

10. हिन्दी सीखने की आवश्यकता बताते हुए अपने मित्र के नाम एक पत्र लिखिए । 7

अथवा

पुस्तक विक्रेता के नाम एक पत्र लिखिए ।

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

An Autonimous College in the jurisdiction of Krishna University, Machilipatnam

Guidelines for II semester Hindi question paper for the Academic year 2018-19.

Time : 3 Hours | HIN - 201C | Max. Marks : 70, Min. Marks : 28

GUIDE LINES

Note : The question paper setters are requested to .....

I. Keep the assignment strictly confidential.

II. Please go through the syllabus and the model question paper supplied.

Section - A

Q. 1 4 Annotations to be set from prose text book
out of which 2 questions to be answered. 2 x 6=12

Q. 2 2 essays to be set from prose text book out of which 1 to be answered. 1 x 12=12

Q. 3 2 short stories to be set from Non-detailed out of which 1 to be answered. 12

Q. 4 2 short questions to be set from Non-detailed book out of which 1 to be answered. 8

Section - B

Grammar

Q. 5 Sandhi Viched : 10 words to be set, out of which 5 to be answered. 5 x 1=5

Q. 6 Correct the sentences : 7 sentences to be set, out of which 4 to be answered. 4 x 1=4

Q. 7 Usages : 6 words to be set, out of which 4 to be answered. 4 x 1=4

Q. 8 Cases : 6 sentences to be set, out of which 3 to be answered. 3 x 1=3

Section - C

Translation and letter writing

Q. 9 Translation : 6 words to be set, out of which 3 to be answered.
6 words to be set out of which 3 to be answered. 3 x 1=3

Q. 10 Letter writing : 2 letters to be set, out of which 1 to be answered. 7 x 1=7

II Semester

Hindi to English

धोषणा पत्र	-	Declaration form
कटौती	-	Deduction
अर्ध सरकारी	-	Demi Official
प्रतिनियुक्ति	-	Deputation
लिखित प्रमाण	-	Documentary proof
नियत तिथि	-	Due date
विधिवत्	-	Duly
अजिंत छुट्टी	-	Earned leave
बयाना	-	Earnest money
पात्रता	-	Eligibility
अनुलग्नक	-	Enclosure
स्थापना	-	Establishment
कार्यकारिणी समिति	-	Execution Committee
पदेन	-	Ex-Officio
स्वच्छ प्रति	-	Fair copy
जाली दस्तावेज़	-	Fake document
वित्तीय सहमति	-	Financial concurrence
स्वस्थता प्रमाण पत्र	-	Fitness Certificate
अग्रेषण	-	Forward
आगे की कार्रवायी	-	Further action
अनुदान	-	Grant
परिवाद समिति	-	Grievance committee
मुख्यालय	-	Head quarters
एतद्सह	-	Herewith
अवैतनिक	-	Honorary
मानदेय	-	Honorarium
पहचान पत्र	-	Identification card
कार्यन्वयन	-	Implementation

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

An Autonimous College in the jurisdiction of Krishna University, Machilipatnam

Hindi	Hindi - 301 C	2018-19	II Degree

Syllabus for B.A., B.Com., B.Sc

III Semester - Hindi

Text Book	=	Kavya Deep
A) Old poetry	=	1. Kabirdas Sakhi 1 to 10 Dohas
		2. Surdas ka Bal varnan
B) Modern poetry	=	1. Matru Bhoomi
		2. Thodthi pattar
		3. Matru Bhasha ke prathi
C) History of Hindi literature	=	Bhaktikaal
		1. Gnanashrayi shakha - Kabirdas
		2. Premashrayi shakha - Jayasi
D) General Essays	=	1. Samachar patra
		2. Bekari ki samasya
		3. Computer
		4. Paryavaran aur pradushna
		5. Sahitya aur Samaj
E) Translation	=	English to Hindi
		5 sentences from prescribed text book
F) Functional Hindi	=	1. Paripatra
		2. Gnapan
		3. Soochana

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

An Autonimous College in the jurisdiction of Krishna University, Machilipatnam

Hindi	Hindi - 301 C	2018-19	II Degree

MODEL QUESTION PAPER

Time : 3 Hours	III Semester	Max. Marks : 75
	Hindi	Pass Mark : 30

1. ***निम्न लिखित पद्यांशों में से किसी एक की सप्रसंग व्याख्या कीजिए ।*** 1 x 10= 10

A) पाहन पूजे हरिमिलै, तो मैं पूजूँ पहार ।
ताते ये चाकी भली, पीस खाय संसार ।।

अथवा

B) सोभित कर नवनीत लिए ।
घुटुरूनि चलत रेनु-तन-मंडित, मुख दधि लेप किए ।
चारू कपोल, लोल लोचन, गोरोचन तिलक दिए ।
लट-लटकनि मनमत्त मधुप-गत मादक मधुहिं पिए ।

2. ***निम्न लिखित पद्यांशों में से किसी एक की सप्रसंग व्याख्या कीजिए ।*** 1 x 10= 10

A) उन्नति पूरी है तब हि जब घर उन्नति होय ।
निज शरीर उन्नति किय, रहत मूढ सब कोय ।।
निज भाषा उन्नति बिना कबहुँ न हौ हैं सोच ।
लाख उपाय अनेक यों भले करो किन कोय ।।

अथवा

B) पालन - पोषण और जन्म का कारण तूही,
वक्षस्थल पर हमें कर रही धारण तू ही ।
अभ्रंकश प्रासाद और ये महल हमारे ।
बने हुए हैं अहो! तुझी से तुझ पर सारे ।

3. ***किसी एक कविता का सारांश लिखिए ।*** 1 x 15= 15

A) तोडती पत्थर

अथवा

B) मातृभाषा के प्रति

4. *किसी <u>एक</u> साहित्यक विषय पर विश्लेषणात्मक निबंध लिखिए ।*

1 x 15= 15

A) ज्ञानाश्रयी शाखा के बारे में वर्णन करते हुए कबीर का स्थान निर्धारित कीजिए ।

अथवा

B) प्रेमाश्रयी शाखा के बारे में वर्णन करते हुए जायसी का स्थान निर्धारित कीजिए ।

5. *किसी <u>एक</u> विषय पर निबंध लिखिए ।* 1 x 10= 10

A) समाचार पत्र

B) बेकारी की समस्या

C) पर्यावरण और प्रदूष्ण

6. *निम्न लिखित में से किसी <u>एक</u> का उत्तर दीजिए ।* 1 x 5= 5

A) सूरदास

B) सूर्यकान्त त्रिपाठी 'निराला'

7. *हिन्दी में अनुवाद कीजिए ।* 1 x 5= 5

A) As soon as he reached the station, the train left.

B) Swamy Vivekananda was a great saint.

C) Kabirdas travelled through out the country.

D) There is a temple behind the tree.

E) Kalidas is known as the Shakespeare of India.

8. *निम्न लिखित में से किसी <u>एक</u> की टिप्पणी लिखिए ।* 1 x 5= 5

A) परिपत्र

B) ज्ञापन

C) सूचना

* * *

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

An Autonimous College in the jurisdiction of Krishna University, Machilipatnam

Department of Hindi

II Degree - III semester

Guidelines for the question paper setter

Time : 3 Hours	HIN - 301 C	Max. Marks : 75
		Pass Marks : 30

Note : The question paper setters are requested to .....

I. Keep the assignment strictly confidential.

II. Please go through the syllabus and the model question paper supplied.

1. Two annotations to be set from old poetry lessons of which one question to be answered. 1 x 10=10
2. Two annotations to be set from modern poetry lessons of which one question to be answered. 1 x 10=10
3. Two essays to be set from modern poetry lessons of which one to be answered. 1 x 15=15
4. Two essays to be set from history of hindi literature of which one to be answered. 1 x 15=15
5. Three general essays to be set, one to be answered. 1 x 10=10
6. Two short questions to be set one from old poetry and one from modern poetry one to be answered. 1 x 5=5
7. Translation from English to Hindi. 1 x 5=5
   5 simple sentences to be set 5 to be answered. - No choise.
8. Three short questions to be set from prayojan moolak hindi one question to be answered.1 x 5=5

* * *

III Semester

English to Hindi

1. The temple is on the bank of the Tree.
2. Mother land is the mother of all mothers.
3. Service to man is service to god.
4. Although he is poor, yet he is honest.
5. As soon as he reached the station, the train left.
6. The murderer uses caught red-handed.
7. Religion is the foundation of human society.
8. Milk contains all essential nutrients.
9. A scholar is respected every where.
10. Contentment is greatest happiness.
11. Trees keep the atmosphere cool.
12. A book is treasures house of knowledge.
13. India is a secular and socialistic country.
14. The cow gives milk.
15. He is a poor, but not thieve.
16. Peacock is the beautiful bird.
17. Beauty is truth.
18. Rama has eaten bread.
19. We have to read news papers daily.
20. Rama is taller than Krishna.
21. Swamy Vivekananda was a great philosopher.
22. We must respect our elders.
23. Most of people of our country live in villages.
24. Be greatful to your parents.
25. Kalidas is known as the Shakespeare of India.

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

DEPARTMENT OF HISTORY

2018-2019

BOARD OF STUDIES

Minutes of Meeting

18-04-2018

Minutes of the meeting of the Board of Studies in History of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 11.30 A.M ON 18.04.2018 In the Department of History.

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. B. 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 Success College, Vuyyuru

AGENDA

1. To recommend any changes to the syllabi in 1st, 3rd, 5th Semesters of 1st, 2rd 3rd Year B.A. History Papers for Academic Year 2019-2020.
2. To recommend the Blue Print and Model Question Papers of 1st 3rdand 5th Semesters of Degree B.A papers for the Academic Year 2019-2020.
3. To recommend the guidelines to be followed by the Question Paper Setters in History for the1st 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.
6. Any other matter.

RESOLUTIONS

1. Discussed and recommend the syllabi without changes for the 2nd , 4th , 6th Semesters of 1st 2nd&3rd Year B.A. as it is of 2018-2019 Academic Year syllabi for 2018-2019.

2. Discussed and recommended the syllabi of 4th semester to add two topics of Durgabai Deshmukh & Sarojini Naidu in unit –IV of 2nd B.A for the Academic Year 2018-19.

a) Semester- II (HIS 201C): Paper-II. Early Medieval Indian History &Culture (From 600 to 1526 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 4th and 6th semesters 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.1st 2nd 3rd&4th Semesters of 1st 2nd BA and 25 marks as internal assessment for 5th&6th Semesters of IIIBA.

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.

3. Whereas 5th and 6th semesters 15 marks are allocated for internal test the two tests will be conducted and average of these two tests shall be deemed as the marks obtained by a student, 5 marks for Assignment 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 75 for 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.

Chairman

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 **Title of the Paper: ANCIENT INDIAN HISTORY & CULTURE**

(From Earliest Times to 600 A.D) **Pass Mark: 30**

Paper Code: HIS 101 C **(W.e.f. 2016-2017)** **Max Marks: 75**

No. of Hours per week: 5 **No. of Credits: 4**

UNIT -I **(20 Hrs)**

Survey of Sources –Literary Sources – Archaeological Sources Influence of Geography on History – Unity in Diversity – Traces of Stone Age cultures(Circa 3,50,000 B.C to 3,000 B.C) – Indus ValleyCivilization:(Circa 3000 B.C to 1,500 B.C) Origin, Extent, Salient Features of the Civilization.

UNIT –II **(15 Hrs)**

Vedic Age & Religious Reform Movements (Circa 1500 B.C to 600 B.C) Vedic and later Vedic Period – Political, Economic and Religious Conditions in the Society – Rise of New Religious Movements: Jainism – Buddhism –Casus, Doctrine, Spread, Importance and Impact.

UNIT-III **(20 Hrs)**

Transition from Territorial States to Emergence of Empires (Circa 600 to 300 B.C) –Rise of Mahajanapadas – Causes for Magadha's Success – Persian, Alexander's Invasions – Causes and its effects on India – The Mauryan Empire: Origin – Asoka Dharma, It's nature and propagation – Mauryan Administration, Society, Economy, Religion, Art and Architecture – Downfall of Mauryan Empire.

UNIT-IV **(15 Hrs)**

Conditions during 200 B. C. TO 300 A.D, Central Asian Contacts – Kushanas –Aspects of Polity, society, Economy, Religion, Art & Architecture – The Age of Satavahanas – Pattern of Administration , Socio Economic Religious Cultural Developments. Sangam Age; Three Early Kingdoms (Chola, Chera &Pandya) – Society, Language & Literature.

UNIT-V **(20 Hrs)**

India between 300 A.D.- 600 A. D. The Rise and Growth of Guptas – Administrative System, Economy, Art, Architecture, Literature, Science and Technology – Golden Age of Guptas – decline.

Reference Books

1. **A.L. Basham, The Wonder That 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. Nilakantha Shastri, A History of South India**

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(AN AUTONOMOUS COLLEGE IN THE JURISDICTION OF KRISHNA UNIVERSITY, MACHILIPATNAM)

CLASS: I B.A SEMESTER – I (CBCS) PAPER-I

Model Paper: HISTORY Title of the Paper: ANCIENT INDIAN HISTORY & CULTURE

(From Earliest Times to 600 A.D) Pass Mark: 30

Paper Code: HIS 101 C (W.e.f. 2016-2017) Max Marks:75

Time: 3 Hrs.

SECTION – A

ANSWER ANY FIVE OF THE FOLLOWING 5X5=25M

1. **Inscriptions**
2. **Unity in Diversity**
3. **Conditions of 6th Century B.C.**
4. **AjathaSatruvu**
5. **Gandhara Art**
6. **Haludu**
7. **Kumara Gupta**
8. **Navaratnalu**

SECTION– B

ANSWER ANY FIVE OF THE FOLLOWING
5x10=50M

9. **Describe the main features of Indus Valley civilization**

10. **Explain the Conditions of Vedic Culture.**

11. **What are the teachings of Mahaveera**

12. **What are the factors that accounted for the raise of Magadha.**

13. **Bring out the salient features of Mauryan Administration**

14. **Briefly describe the socio-economic conditions under Satavahanas**

15. **Examin the Socio, Economics, Literary conditions of Sangam Age**

16. **Write about the Chandragupta-II**

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VUYYURU, A.P. – 521165

(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

Subject- HISTORY	HIS 101 C	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	2	1	1	2	2
B 10 Marks Questions	1	2	2	2	1
Weightage	20	25	25	30	20

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(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 Mark: 30

Paper Code: HIS 301 C **(W.e.f. 2016-2017)** **Max Marks: 75**

No. of Hours per week: 5 **No. of Credits: 4**

Unit – I **(20hours)**

India from1526 to 1707 A.D. Emergence of Mughal Empire- Sources – Political Condition in India on the eve of Babur Invasions, Brief Summary of Mughal Polity, Sher Sha – Sur Interregnum – Expansion & Consolidation of Mughal Empire.

Unit – II **(20hours)**

Administration –Economy- Society – Cultural Developments Under Mughals, Dis integration of Mughals -Rise of Marathas-Peshwas.

Unit – III **(20hours)**

India Under Colonial Hegemony: Beginning of European Settlements – English and French Struggle – Policies of Expansion – Subsidiary Alliance – Doctrine of Lapse. Consolidation of British Power in India up to 1857

Unit – IV **(15hours)**

Economic Policies of the British (1757 -1857) – Land Revenue Settlements – Permanent – Ryotwari – Mahalwari Systems – Commercialization of Agriculture – Impact of Industrial Revolution on Indian Industry, Administration of Company –Regulating Acts, Cultural & Social Policies; Humanitarian Measures & Spread of Modern Education.

Unit – V (15hours)

Anti-Colonial Upsurge-Peasant and Tribal Revolts – 1857 Revolt-Causes: Results and Nature Consequences.

References:

1. **R.C. Majundar, H.C.- Rayachandhuri & Kalikinkar Datta, 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. **Suchetra Mahajan & Adithya Mukharjee, India's struggle for Independence.**
9. **P.C. Joshi, Rebellion 1857: A Sympossim.**
10. **J.F. Richards, The Mughal Empire**
11. **Irfan Habib, 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. **Muzaffar Alam and Sanjay Subramanaian, eds, The Mughal state, 1526-1750.**
17. **Andre Wink, Land and Sovereignty in India.**
18. **Harbans Mukhia, 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-IIITitle of the Paper: LATE MEDIVAL & COLONIAL HISTORY OF INDIA

(From 1526 -1857 A.D)

Pass Mark: 30

Paper Code: HIS -301 C **(W.e.f. 2016-2017)** **Max Marks: 75**

Time : 3 Hrs

Model Question Paper

SECTION – A

ANSWER ANY FIVE OF THE FOLLOWING **5X5=25**

1. **Sher Shah**
2. **Nurjahan**
3. **Mansabdari System**
4. **Peshwa Balaji Viswanadh**
5. **Subsidiary Alliance**
6. **De Industrialization**
7. **1773 Regulating Act**
8. **Magnacarta of Indian people**

SECTION - B

ANSWER ANY FIVE OF THE FOLLOWING **5X10=50**

9. **Describ the Achievements of Babur .**
10. **What were the causes for the decline of Mughal Empire.**
11. **Bring out the salient features of Mughal Administration.**

12. **How did Shivaji establish an Independent Maratha Empire.**

13. **Discuss the greatness of Robert Clive.**

14. **Write about the Land Revenue settlements adopted by the British .**

15. **Acess how the Indian Economy was ruined under the British rule .**

16. **Analyse the causes for the out break of 1857 Revolt.**

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

VUYYURU, A.P. – 521165

(An Autonomous College in the Jurisdiction of Krishna University, Machilipatnam)

SUBJECT- History	HIS 301C	II B.A

TITLE: LATE MEDIEVAL & COLONIAL HISTORY OF INDIA

(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	2	2	1	2	1
B 10 Marks Questions	2	2	1	2	1
Weightage	30	30	15	30	15

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III BA - HISTORY SYLLABUS

Semester – V (CBCS) Paper – V

Title of the Paper - Age of Rationalism and Humanism -The World Between 15th& 18thCenturies

Paper Code : HIS-501 C **w.e.f. 2017 - 2018**

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; (15 Hrs)

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 (20 Hrs)

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

(25 Hrs)

Unit – IV

Age of Revolutions: The American Revolution (1776) - Opening of New World - Causes - Course - Declaration of Independence, 1776 - Bill of Rights, 1791 - Significance.

(15 Hrs)

Unit – V

Age of Revolutions: The French Revolution (1789) - Causes - Teachings of Philosophers - Course of the Revolution - Results (15 Hrs)

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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III BA HISTORY - Model Question Paper Semester – V (CBCS) Paper – V

Title of the Paper - Age of Rationalism and Humanism –The World Between 15th& 18thCenturies

Paper Code: HIS-501 C (w.e.f. 2017 - 2018) Max Marks: 75

Time: 3 Hrs Pass Marks: 30 SECTION – A

Answer any FIVE of the following 5x5=25M

1. **Geographical Discoveries**
2. **Martin Luther**
3. **Counter Reformation**
4. **Emergence of Nation States**
5. **James – II**
6. **Boaston Tea Party**
7. **Tennis Court Oath**
8. **Reign of Terror**

SECTION – B

Answer any FIVE of the following 5x10=50M

9. **Analyze the features of Feudalism**
10. **Explain the important features of Renaissance**
11. **What is Reformation Movement and its significance**
12. **Describe the causes for the emergence of Nation States**
13. **Give a brief account of Glorious Revolution**
14. **Discuss about the causes of American Revolution**
15. **Write an essay on causes for the French Revolution**
16. **Estimate the rule of Directory in France.**

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The Guidelines to be followed by the question paper setters in HISTORY for the V Semester - End Exams (2017-2018)

Title of Paper: Age of Rationalism and Humanism - The World Between 15th& 18th Centuries

Paper Code: HIS-501 C

Paper- VSemester – VMaximum marks: 75Duration: 3 Hours

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	2	2	1	2
B 10 Marks Questions	1	2	2	1	2
Weightage	15	30	30	15	30

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III BA - HISTORY SYLLABUS

Semester – V (CBCS) **Paper – VI**

Title of the Paper - History & Culture of Andhra Desa (from 12th to 19th Century A.D)

Paper Code: HIS-502 C **w.e.f. 2017 - 2018**

No. of Hours per week: 5 **No. of Credits: 4**

Unit – 1

Andhra during 12th& 13th Centuries A.D.: Kakatiyas – Origin &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. (20 Hrs)

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. (20 Hrs)

Unit - III

Andhra through 16th& 17th Centuries A.D.: Evolution of Composite Culture - The QutubShahis of Golkonda -Origin & Decline -Administration, Society & Economy -Literature & Architecture. (15 Hrs)

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. (15 Hrs)

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. (20 Hrs)

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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III BA HISTORY - Model Question Paper

Semester – V (CBCS) **Paper – VI**

Title of the Paper - History & Culture of Andhra Desa (from 12th to 19th Century A.D)

Paper Code : HIS-502 C **(w.e.f. 2017 - 2018)** **Max Marks:75**

Time:3 Hrs **Pass Marks:30**

SECTION – A

Answer any FIVE of the following **5x5=25M**

1. **Rudrama Devi**
2. **Devarayalu - II**
3. **Battle of Tallikota**
4. **AbdulHasanTanisha**
5. **AkkannaMadannalu**
6. **Duplex**
7. **Thomas Munroe**
8. **Sir Arthur Cotton**

SECTION – B

Answer any <u>FIVE</u> of the following **5x10=50M**

9. Write an essay on Socio-Economic and Cultural conditions of Kakatiyas

10. Discuss the glory of Vijayanagara Empire

11. Briefly explain the Administrative system of QutubShahis

12. Write about the general conditions of Andhra in 17^{th} Century

13. Give a brief account of Carnatic Wars in Deccan

14. Explain about the Acquisition of Northern Circars by British

15. Describe the Land Revenue Settlements under Company Rule

16. Estemate the impact of 1857 Revolt in Andhra.

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The Guidelines to be followed by the question paper setters in HISTORY for the V Semester - End Exams (2017-2018)

Title of Paper: History & Culture of Andhra Desa (from 12th to 19th Century A.D)

Paper Code: HIS-502 C

Paper- VISemester – VMaximum marks: 75Duration: 3 Hours

Guidelines to the Paper Setter

Section	Unit – I	Unit – II	Unit – III	Unit - IV	Unit-V
A 5 Marks Questions	1	2	2	1	2
B 10 Marks Questions	1	1	2	2	2
Weightage	15	20	30	25	30

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(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: EARLY MEDIEVAL INDIAN HISTORY & CULTURE

(From 600to 1526 A.D) Pass Marks 28

Paper Code: HIS 201C (W.e.f. 2019-20) Max Marks 70

No.of Hours per week:5 No. of Credits:4

UNIT –I 20Hrs

Harsha& His Times ,Administration, Religion –Hiuen Tsang –Polity , Society and Culture from 7th to 11th Century A.D. Under Chalukyas of Badami&EsternChalukyas of Vengi.

UNIT – II 15 Hrs

Age of laterPallavas during 7th &8th Centuries A.D. contribution to cultural Development & art &Architecture:The Cholas from 9th to 12th Century A.D.: Rise of the Empire – Administration –and–Cultural Life.

UNIT – III 25Hrs

Conditions in India on the eve of Turkish Invasions; Traces of Arab Invasions, Ghazani&Ghori , DelhiSultanate (1206 -1290 A.D); under Slave Dynasty.

UNIT –IV 15Hrs

Delhi Sultanate (1290 -1526 A.D.)Khalgis: Expansion & Consolidation, Administrative &Economic Reforms ; The Tughlaqs Decline and Dis integration of the Delhi Sultanate Administration ,society ,Economy, Technology, Religion, Art &Architecture under the Delhi Sultanate .

UNIT –V 15Hrs

Cultural Development in India between 13th&15th Centuries A.D. Impact of Islam on Indian society &Culture – Bhakti &Sufi Movements Emergence of Composite Culture.

Reference Books

1.A.LSrivatsava-The Sultanate of Delhi.

2.Eswar Prasad- Short history of Muslim Rule in india.

3.K.H.Neelakantasastry –A History of South India.

4.HermanKulke (ed) The state in India .(A.D.1000-1700 A.D)

5. Mohammad Habib and K.A.Nizami(eds) comprehensive History of India, Vol-V, The DelhiStatement.

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CLASS: I B.A **SEMESTER – II (CBCS)** **PAPER-II**
SYLLABUS: HISTORY Title of the Paper: INDIAN HISTORY AND CULTURE
(From 600to 1526 A.D) **Pass Marks 28**
Paper Code: HIS 201C (W.e.f. 2019-20) **Max Marks 70**

Model Question Paper

SECTION - A

ANSWER ANY TWO OF THE FOLLOWING **5X2=10**

1.Hiuen Tsang

2.Mahendravarma –I

3 .Razia Sultana

4 .Market Reforms of AllauddinKhilgi

SECTION -B

ANSWER ANY FOUR OF THE FOLLOWING 4X15=60

5.Asses the greatness of Harshavardhana

6.Give a brief account of the achievements of Pulakesin –II

7. Sketch the contribution ofPallavas to South Indian Culture.

8 .Bring out the salient features of Cholas Administration.

9.Give a brief account of Muhammad Ghazni's invasions of India.

10.Criticallyexamine the Administrative reforms of Mahammad Bin –Tughlak .

11.Discuss the Socio, Economics Conditions of Delhi Sultanate

12.Write an essay on Bhakti Movement .

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
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SUBJECT- History	HIS 201C	I B.A

TITLE:EARLY MEDIEVAL INDIAN HISTORY AND CULTURE
(From 600 A.D to1526 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

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CLASS: II B.A **SEMESTER – IV (CBCS)** **PAPER-IV**

SYLLABUS: HISTORY **Title of the Paper: Social Reform Movement & Freedom Struggle**

(From 1820-1947A.D) **Pass Marks 28**

Paper Code: HIS 401C **(W.e.f. 2019-20)** **Max Marks 70**

No.of Hours per week:5 No. of Credits:4

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) Gandhiji's in Indian National Movement – Revolutionary Movements– Subhas ChandraBose.**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 Dietmar Rothermund, A History of India Rupa & Co 199*1.

Alladi Vaidehi, Freedom Movement in India (1858-1947)

Suruchi Thapon, Women in the Indian National Movement unseen faces and Unhand Voices, 1930-1942, Delhi, 2006

Raj Kumar, Ramesh Vari Desi & Romula Prulhi, 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 **Max Marks 70**

Model Question Paper

SECTION - A

ANSWER ANY TWO OF THE FOLLOWING **5X2=10**

1.Jyothiba Phule

2.Indian National Congress

3 .Balagangadhara Tilakh

4 .Simon Commission

SECTION -B

ANSWER ANY FOUR OF THEFOLLOWING **4X15=60**

5.Explain the socio-religious movements in the 19^{th} and 20^{th} 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 .

11.Estimate the role of Vallabhai Patel in the integration of Native states into Indian Union .

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SUBJECT- History	**HIS 401C**	**II B.A**

TITLE: INDIAN HISTORY AND CULTURE

(From 1526 -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	2	-
B 15 Marks Questions	2	1	1	2	2
Weightage	35	20	20	40	30

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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, Syllabus, Title of the Paper – History of Modern Europe (from 19th Century to 1945 A.D)

Paper Code ; HIS-601GE (w .e. f 2019 - 20)

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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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 2019-20) Pass Marks: 30

Time : 3Hrs Max. Marks : 75

Model Question Paper

SECTION – A

Answer any FIVE of the following 5x5=25

1. Karl Marx
2.Young Italy
3.Blood& Iron Policy
4.Lenin
5.Versellies Treaty
6.Wilson 14 points
7.Munich Pact
8.Atlantic Charter

SECTION – B

Answer any FIVE of the following 5x10=50
9.Write an essay on Industrial Revolution and its effects
10.Describe the main stages of unification of Italy
11.Briefly explain the different stages of unification of Germany
12.Analyse the causes for 1917 Russian Revolution
13.Give a brief account of the course of First World War
14.Discuss about the causes for the failure of League of Nations
15.Estemate the rise and fall of Fascism in Italy
16.Explain about the role played by America in Second World War.

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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	2	1	2	2
B 10 Marks Questions	1	2	1	2	2
Weightage	15	30	15	30	30

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

DEPARTMENT OF MATHEMATICS

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

Minutes of the meeting of BOS in Mathematics for B.Sc Degree Courses of AG & SG Siddhartha Degree College of Arts & Science, Vuyyuru, held at 10.30 A.M on 11-04-2018 .

N.V. Srinivasa Rao *Presiding*

Members Present:

1)..... (N.V.Srinivasa Rao)	Chairman	Head, Department of Mathematics AG & SG S Degree College.
2)..... (Prof K. Pandu Ranga Rao)	University Nominee	Department of Mathematics Acharya Nagarjuna University Guntur
3)..... (Dr.K.Naveen Kumar)	Subject Expert	Lecturer in Mathematics K.B.N Degree College, Vijayawada
4)..... (P.Babu Rao)	Subject Expert	Lecturer in Mathematics P.B.Siddhartha Degree College, Vijayawada
5)..... (D.Sunitha)	Member	Lecturer in Mathematics AG & SG S Degree College.
6)..... (A.Bhargavi)	Member	Lecturer in Mathematics AG & SG S Degree College.
7)..... (Noor Mohammad)	Member	Lecturer in Mathematics AG & SG S Degree College.

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 Mathematics for 1st and 2nd Semesters as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2018-19.
2. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Mathematics for 3rd and 4th Semesters as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2018-19 and Foundation Course "Analytical Skills" for 4th Semester for all the second Degree students from the Academic Year 2018-19.
3. To discuss and recommend the Syllabi, Model Question Papers and Guidelines to be followed by question paper setters in Mathematics for 5th and 6th Semesters as per the guidelines and instructions under CBCS prescribed by Krishna University from the Academic Year 2018-19.
4. Any other matter.

RESOLUTIONS

1) Discussed and recommended that no changes are required in Syllabi. Model Question Papers and Guidelines to be followed by the question paper setters in Mathematics for 1st and 2nd Semesters from the Academic year 2018-19. The maximum marks for IA is 30 and SE is 70. Each IA written examination is of 1 hour duration for 20 marks. The tests will be conducted centrally. The average of two such IA is calculated for 20 marks. 5 marks will be allotted basing on Assignment and 5 marks are allotted for attendance. There is no minimum passing for IA and there is no provision for improvement in IA. Even though the candidate is absent for two IA exams/obtain zero marks the external marks are considered (if he/ she gets 40 out of 70) and the result shall be declared as 'PASS' from the Academic year 2018-19.
2) Discussed and recommended that no changes are required in syllabi, Model Question Papers and Guidelines for question paper setters in Mathematics for 3rd and 4th Semesters for the Academic year 2018-19 and Foundation Course "Analytical Skills" for 4th Semester for all the second Degree students for the Academic Year 2018-19.
3) Discussed and recommended that no changes are required in Syllabi, Model Question Papers and Guidelines to be followed by the question paper setters in Mathematics for 5th and 6th Semesters and followed General Elective, Cluster Electives from the Academic year 2017-18 and followed same pattern for the Academic Year 2018 - 19.
4) Discussed and recommended for organizing certificate course, seminars, Guest lecturers, Workshops to upgrade the knowledge of students for Competitive Examinations for the approval of the Academic Council.

N.V.Raj
Chairman

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MATHEMATICS	**MAT-101**	**I B.Sc**	**w.e.f 2018-2019**
SEMESTER-I		**PAPER-I**	**Max.Marks:100**

Hours/ Week: 6 **DIFFERENTIAL EQUATIONS** **No.of Credits: 5**

UNIT – I (12 Hours), Differential Equations of first order and first degree:
Linear Differential Equations; Differential Equations Reducible to Linear Form; Exact Differential Equations; Integrating Factors; Change of Variables.

UNIT – II (12 Hours): Orthogonal Trajectories, Differential Equations of first order but not of the first degree.
Equations solvable for p; Equations solvable for y; Equations solvable for x; Equations that do not contain. x (or y); Equations of the first degree in x and y – Clairaut's Equation.

UNIT – III (14 Hours), Higher order linear differential equations-I :
Solution of homogeneous linear differential equations of order n with constant coefficients; Solution of the non-homogeneous linear differential equations with constant coefficients by means of polynomial operators.
General Solution of f(D)y=0
General Solution of f(D)y=Q when Q is a function of x.
f (D) is Expressed as partial fractions.
P.I. of f(D)y = Q when Q= be^{ax}
P.I. of f(D)y = Q when Q is b sin ax or b cosax.

UNIT – IV (12 Hours), Higher order linear differential equations-II :
Solution of the non-homogeneous linear differential equations with constant coefficients.
P.I. of f(D)y = Q when Q= bx^k
P.I. of f(D)y = Q when Q= $e^{ax}V$
P.I. of f(D)y = Q when Q= xV
P.I. of f(D)y = Q when Q= $x^m V$

UNIT –V (10 Hours), Higher order linear differential equations-III :
Method of variation of parameters; Linear differential Equations with non-constant coefficients; The Cauchy-Euler Equation.

Reference Books :
1. Differential Equations and Their Applications by Zafar Ahsan, published by Prentice-Hall of India Learning Pvt. Ltd. New Delhi-Second edition.
2. A text book of mathematics for BA/BSc Vol 1 by N. Krishna Murthy & others, published by S. Chand & Company, New Delhi.
3. Ordinary and Partial Differential Equations Raisinghania, published by S. Chand & Company, New Delhi.
4. Differential Equations with applications and programs – S. Balachandra Rao & HR Anuradhauniversities press.

Suggested Activities:
Seminar/ Quiz/ Assignments/ Project on Application of Differential Equations in Real life

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EXAMINATION AT THE END OF FIRST SEMISTER (w.e.f: 2016-17)

Mathematics Paper - I Mat - 101 C Max. Marks : 75 Pass Mark : 30 Time : 3 hrs.

SECTION - A (Short Answer Questions)

5x5 = 25M

Answer any **FIVE** questions

1. Solve $(1+xy)xdy+(1-xy)ydx=0$
2. Solve $x\frac{dy}{dx}+y=y^2\log x$
3. Solve $y+px=p^2x^4$
4. Solve $x^2(y-px)=p^2y$
5. Solve $(D^2-5D+6)y=e^{4x}$
6. Solve $(D^2+4)y=\cos 2x$
7. Solve $(D^2-5D+6)y=xe^{4x}$
8. Solve $(D^2+1)y=\operatorname{Cosec} x$ by the method of Variation of Parameters.

SECTION - B

5x10 = 50M

Answer any **FIVE** questions.

9. Solve $x^2ydx-(x^3+y^3)dy=0$
10. Solve $\frac{dx}{z^2-2yz-y^2}=\frac{dy}{xy+xz}=\frac{dz}{xy-xz}$
11. Show that the family of confocal conics $\frac{x^2}{a^2+\lambda}+\frac{y^2}{b^2+\lambda}=1$ is self orthogonal

12. Solve $p^2 + 2py \cot x = y^2$

13. Solve $x p^3 = a + bp$

14. Solve $(D^2 + 9) y = \cos^3 x$

15. Solve $(D^2 - 2D + 1) y = x e^x \sin x$

16. Solve $(D^2 + a^2)y = \tan ax$ by the method of Variation of Parameters

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DEPARTMENT OF MATHEMATICS

Question Paper Guidelines for SEMESTER-END Examinations

Time: 3 HrsMAT-101Max.Marks:70Min. Marks: 28

Note :- 1). Answer any FOUR questions out of 8 in Section-A. Eachquestion carries 5 marks (4x5=20 Marks)

2). Answer any FIVE questions out of 8 in Section-B. Eachquestion carries10 marks. (5x10=50 Marks)

Questions to be set as follows:

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short answer questions)	2	2	2	1	1
Section-B (Essay questions)	1	1	2	2	2

---The End---

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(An Autonomous College in the jurisdiction of Krishna University, Machilipatnam)

Accredited with "A" Grade by NAAC, Bengaluru

MATHEMATICS	**MAT-201**	**I B.Sc**	**w.e.f 2018-2019**

SEMESTER-IIPAPER-II **Max.Marks:100**

Hours/Week: 6 **SOLID GEOMETRY** **No.of Credits: 5**

UNIT – I (10 hrs) : The Plane :

Equation of plane in terms of its intercepts on the axis, Equations of the plane through the given points, Length of the perpendicular from a given point to a given plane, Bisectors of angles between two planes, Combined equation of two planes, Orthogonal projection on a plane.

UNIT – II (12 hrs) : The Line :

Equation of a line; Angle between a line and a plane; The condition that a given line may lie in a given plane; The condition that two given lines are coplanar; Number of arbitrary constants in the equations of straight line; Sets of conditions which determine a line; The shortest distance between two lines; The length and equations of the line of shortest distance between two straight lines; Length of the perpendicular from a given point to a given line;

UNIT – III (12 hrs) : Sphere :

Definition and equation of the sphere; Equation of the sphere through four given points; Plane sections of a sphere; Intersection of two spheres; Equation of a circle; Sphere through a given circle; Intersection of a sphere and a line; Power of a point; Tangent plane; Plane of contact; Polar plane; Pole of a Plane; Conjugate points; Conjugate planes;

UNIT – IV (14 hrs) : Sphere &Cones :

Angle of intersection of two spheres; Conditions for two spheres to be orthogonal; Radical plane; Coaxial system of spheres; Simplified from of the equation of two spheres.

Definitions of a cone; vertex; guiding curve; generators; Equation of the cone with a given vertex and guiding curve; Enveloping cone of a sphere; Equations of cones with vertex at origin are homogenous; Condition that the general equation of the second degree should represent a cone; Condition that a cone may have three mutually perpendicular generators;

UNIT – V (12 hrs) Cones & Cylinders :

Intersection of a line and a quadric cone; Tangent lines and tangent plane at a point; Conditionthat a plane may touch a cone; Reciprocal cones; Intersection of two cones with a common vertex; Right circular cone; Equation of the right circular cone with a given vertex; axis and semi-vertical angle. Definition of a cylinder; Equation to the cylinder whose generators intersect a given conic and are parallel to a given line; Enveloping cylinder of a sphere; The right circular cylinder; Equation of the right circular cylinder with a given axis and radius.

Reference Books :

1. Analytical Solid Geometry by Shanti Narayan and P.K. Mittal, Published by S. Chand & Company Ltd. 7th Edition.
2. A text book of Mathematics for BA/B.Sc Vol 1, by V Krishna Murthy & Others, Published by S. Chand & Company, New Delhi.
3. A text Book of Analytical Geometry of Three Dimensions, by P.K. Jain and Khaleel Ahmed, Published by Wiley Eastern Ltd., 1999.
4. Co-ordinate Geometry of two and three dimensions by P. Balasubrahmanyam, K.Y. Subrahmanyam, G.R. Venkataraman published by Tata-MC Gran-Hill Publishers Company Ltd., New Delhi.

Suggested Activities:

Seminar/ Quiz/ Assignments/ Project on Application of Solid Geometry in Engineering

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EXAMINATION AT THE END OF SECOND SEMESTER (w.e.f: 2016-17)

Mathematics Paper - II Mat - 201 C Max. Marks : 75 Pass Mark : 30 Time : 3 hrs.

SECTION - A (Short Answer Questions)

Answer any FIVE questions **5 x 5 = 25 M**

1. Find the equation of the plane through (4, 4, 0) and perpedicular to the planes $x+2y+2z=5$ and $3x+3y+2x-8=0$
2. Find the epuation to the plane through the line of intersection of $x-y+3z+5=0$ and $2x+y-2z+6=0$ and passing through $(-3, 1, 1)$.
3. Find the image of the point $(1, 3, 4)$ in the plane $2x-y+z+3=0$.
4. Find the equation to the plane containing the parallel lines $\frac{x-3}{4}=\frac{y-2}{-5}=\frac{z-4}{-1}$ and $\frac{x+2}{-4}=\frac{y}{5}=\frac{z-3}{1}$.
5. Find the equation of the sphere through the points $(0, 0, 0), (0, 1, -1), (-1, 2, 0), (1, 2, 3)$.
6. Find the equation of the sphere for which the circle $x^2+y^2+z^2+7y-2z+2=0, 2x+3y+4z=8$
7. Find the epuation to the cone which passes through the three co-ordinate axes and the lines $\frac{x}{1}=\frac{y}{-2}=\frac{z}{3} \& \frac{x}{2}=\frac{y}{1}=\frac{z}{1}$.
8. Find the equation to the right circular cylinder of radius 2 whose axis passes through the point $(1, 2, 3)$ and has durection ratios $(2, -3, 6)$

SECTION - B

Answer any FIVE questions **5 x 10 = 50 M**

9. Show that the equation $x^2+4y^2+9z^2-12yz-6zx+4xy+5x+10y-15z+6=0$ represents a pair of par allel planes and find the distance between them.
10. Find the length and equation to the line of S. D between the lines $\frac{x-2}{3}=\frac{y-3}{4}=\frac{z-1}{2}, \frac{x-4}{4}=\frac{y-5}{5}=\frac{z-2}{3}$
11. Find the equations of the spheres passing through the circle $x^2+y^2=4, z=0$ and is intersected by the plane $x+2y+2z=0$ in a circle of radius 3.

12. Find the limiting points of the coaxal system spheres $x^2+y^2+z^2-20x+30y-40z+29+\lambda(2x-3y+4z)=0$

13. Show that the two lines of intersection of the plane $ax+by+cz=0$ with the cone $yz+zx+xy=0$ will be perpendicular if $\frac{1}{a}+\frac{1}{b}+\frac{1}{c}=0$

14. Show that the general equation to a cone which touches the three co-ordinate planes is $\sqrt{ax}+\sqrt{by}+\sqrt{cz}=0$

15. Find the equation of the cylinder whose generators are parallel to the line $\frac{x}{1}=\frac{y}{-2}=\frac{z}{3}$ and whose base curve is $x^2+2y^2=1, z=3$.

16. Find the equation to the right circular cylinder whose guiding circle is $x^2+y^2+z^2=9, x-y+z=3$.

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MATHEMATICS MAT-301 B.Sc.(E.M,T.M& CS)w.e.f: 2018-2019

SEMESTER-IIIPAPER-III Max.Marks:100

Hours per week: 6 **Abstract Algebra and Real Analysis-I** **No.of Credits:5**

UNIT – 1 : (10Hrs) GROUPS : -
Binary Operation – Algebraic structure – semi group-monoid – Group definition and elementaryproperties Finite and Infinite groups – examples – order of a group. Composition tables with examples.

UNIT – 2 : (10Hrs) SUBGROUPS : -
Complex Definition – Multiplication of two complexes Inverse of a complex-Subgroup definition– examples-criterion for a complex to be subgroups.Criterion for the product of two subgroups to be a subgroup-union and Intersection of subgroups.
Co-sets and Lagrange's Theorem: -Cosets Definition – properties of Cosets–Index of a subgroups of a finite groups–Lagrange'sTheorem.

UNIT –3 : (12Hrs) NORMAL SUBGROUPS : -
Definition of normal subgroup – proper and improper normal subgroup–Hamilton group – criterion for a subgroup to be a normal subgroup – intersection of two normal subgroups – Subgroup of index 2 is a normal sub group – simple group – quotient group – criteria for the existenceof a quotient group.

UNIT – 4 (14hrs) : REAL NUMBERS :
The algebraic and order properties of R, Absolute value and Real line, Completeness property of R, Applications of supreme property; intervals. **No. Question is to be set from this portion**.
Real Sequences: Sequences and their limits, Range and Boundedness of Sequences, Limit of a sequence and Convergent sequence. The Cauchy's criterion, properly divergent sequences, Monotone sequences, Necessary and Sufficient condition for Convergence of Monotone Sequence, Limit Point of Sequence, Subsequences and the Bolzano-weierstrass theorem – Cauchy Sequences – Cauchey's general principle of convergence theorem.

UNIT –5 (14hrs) : INFINITIE SERIES :
Series: Introduction to series, convergence of series. Cauchey's general principle of convergence for series tests for convergence of series, Series of Non-Negative Terms.
1. P-test, 2. Cauchey's n^{th}root test or Root Test. 3. D'-Alemberts' Test or Ratio Test.
4. Alternating Series – Leibnitz Test. Absolute convergence and conditional convergence.

Reference Books:
1. Abstract Algebra, by J.B. Fraleigh, Published by Narosa Publishing house.
2. Real Analysis by Rabert&Bartely and .D.R. Sherbart, Published by John Wiley.
3.A text book of Mathematics for B.A. / B.Sc. by B.V.S.S. SARMA and others, Published byS.Chand& Company, New Delhi.
4.Modern Algebra by M.L. Khanna.

Suggested Activities:
Seminar/ Quiz/ Assignments/Group discussions.

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EXAMINATION AT THE END OF THE THIRD SEMESTER (w.e.f 2018-2019)

Mathematics Paper III MAT- 301 Max. Marks: 70Pass Mark: 28 Time: 3 hrs.

Abstract Algebra and Real Analysis I

Section – A (short answer questions)

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

Choosing at least ONE question from each Part.

Part - I

1. Show that in a group G for a, b∈ G, $(a\,b)^2 = a^2\,b^2 \Leftrightarrow$ G is abelian.
2. If H, K is two sub groups of a group G, then show that H∩K is also a sub group of G.
3. State and prove Lagrange's Theorem.
4. A subgroup H of a group G is normal subgroup iff $xHx^{-1}=H$, for all x∈ G.

Part - II

5. Every convergent sequence is bounded? Is the converse true?
6. Show that the sequence $S_n = \frac{1}{n+1}+\frac{1}{n+2}+\frac{1}{n+3}+.....+\frac{1}{n+n}$ is convergent.
7. Test for convergence of $\sum \sqrt{n+1}-\sqrt{n}$
8. Examine the conditionally convergence of $\sum (-1)^{n+1}\frac{n}{n^2+1}$

Section – B (long answer questions)

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

Choosing at least TWO questions from each Part.

Part - I

9. Show that the set of Q^+ of all +ve rational numbers forms an abelian group under the composition defined by 'o' such that aob= $\frac{ab}{3}$ for a, b ϵ Q^+.
10. If H is a non-empty complex of a group G. The necessary and sufficient condition for H to be a sub group of G is a, b$\in$H $\Longrightarrow ab^{-1} \in H$ here b^{-1} is the inverse of b.
11. If H_1, H_2 are two subgroups of a group G, then $H_1 \cup H_2$ is a sub group of G if and only if $H_1 \subseteq H_2$ (or) $H_1 \subseteq H_2$.
12. A subgroup H of a group G is normal subgroup of G iff the product of two right (left) cosets of H in G is again a right (left)coset of H in G.

Part - II

13. A sequences is convergent if and only if it is a Cauchy's sequence
14. State and prove Cauchy's First theorem on sequence.
15. Test for convergence of $\sum \frac{1.3.5 \cdots\cdots (2n-1)}{2.4.6 \ldots\ldots\ldots 2n} x^{n-1}$ (x>0)
16. State and prove Leibnitz's test.

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DEPARTMENT OF MATHEMATICS

Question Paper Guidelines for SEMESTER-END Examinations

Time: 3 Hrs. **MAT-301** **Max.Marks:70** **Min. Marks: 28**

Note :- 1). Answer any **FOUR** questions out of 8 in Section-A. Each question Carries 5 marks. (4x5=20 Marks)

2). Answer any **FIVE** questions out of 8 in Section-B. Each question Carries10 marks. (5x10=50 Marks)

Questions to be set as follows:

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short answer questions)	1	2	1	2	2
Section-B (Essay questions)	1	2	1	2	2

---The End---

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DEPARTMENT OF MATHEMATICS

Question Paper Guidelines for SEMESTER-END Examinations

Time: 3 Hrs **MAT- 201** **Max.Marks:70** **Min. Marks: 28**

Note :- 1) Answer any FOUR questions out of 8 in Section-A. Each question carries 4 marks (4x5=20 Marks)

2) Answer any FIVE questions out of 8 in Section-B. Each question carries10 marks. (5x10=50 Marks)

Questions to be set as follows:

	Unit-1	**Unit-2**	**Unit-3**	**Unit-4**	**Unit-5**
Section-A (Short answer questions)	2	2	2	1	1
Section-B (Essay questions)	1	1	2	2	2

---The End---

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MATHEMATICS	**MAT-401**	**B.Sc(E.M,T.M, CCs& CS)**	**w.e.f 2018-2019**
SEMESTER-IV		**PAPER-IV**	**Max.Marks:100**
Hours/ Week: 6			**No.of Credits: 5**

Abstract Algebra and Real Analysis – II

UNIT – 1 : (14 Hrs) HOMOMORPHISM : -

Definition of homomorphism – Image of homomorphism elementary properties of Homomorphism – Isomorphism – automorphism definitions and elementary properties– kernel of ahomomorphism – fundamental theorem on Homomorphism and applications.

UNIT – 2 : (12 Hrs) PERMUTATIONS AND CYCLIC GROUPS : -

Definition of permutation – permutation multiplication – Inverse of a permutation – cyclic permutations – transposition – even and odd permutations – Cayley's theorem.

Cyclic Groups: -Definition of cyclic group – elementary properties – classification of cyclic groups.

UNIT – III (10 hrs) : LIMITS AND CONTINUITY :

Limits : Real valued Functions, Boundedness of a function, Limits of functions. Some extensions of the limit concept, Infinite Limits. Limits at infinity. **No. Question is to be set from this portion.**

Continuous functions: Continuous functions, Combinations of continuous functions, Continuous Functions on intervals, uniform continuity.

UNIT – IV (12 hrs) : DIFFERENTIATION AND MEAN VALUE THEORMS :

The derivability of a function, on an interval, at a point, Derivability and continuity of a function, Graphical meaning of the Derivative, Mean value Theorems; Role's Theorem, Lagrange's Theorem, Cauchhy's Mean value Theorem

UNIT – V (12 hrs) : RIEMANN INTEGRATION :

Riemann Integral, Riemann integral functions, Darboux theorem. Necessary and sufficient condition for R – integrability, Properties of integrable functions, Fundamental theorem of integral calculus, integral as the limit of a sum, Mean value Theorems.

Reference Books :

1. Real Analysis by Rabert & Bartely and .D.R. Sherbart, Published by John Wiley.
2. A Text Book of B.Sc Mathematics by B.V.S.S. Sarma and others, Published by S. Chand & Company Pvt. Ltd., New Delhi.
3. Elements of Real Analysis as per UGC Syllabus by Shanthi Narayan and Dr. M.D. Raisingkania Published by S. Chand & Company Pvt. Ltd., New Delhi.
4. Modern Algebra by M.L. Khanna.

Suggested Activities:

Seminar/ Quiz/ Assignments/Group discussions.

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EXAMINATION AT THE END OF THE FOURTH SEMESTER (w.e.f 2018-19)

Mathematics Paper IV MAT- 401 Max. Marks: 70Pass Mark: 28Time: 3 hrs.

Abstract Algebra and Real Analysis – II

Section – A (short answer questions)

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

Choosing at least ONE question from each Part.

Part - I

1. The set of all automorphisms of a group G forms a group w.r.to composition of mappings.
2. If f = (1 2 3 4 5 8 7 6), g = (4 1 5 6 7 3 2 8) are cyclic permutations, then show that $(fg)^{-1} = g^{-1}f^{-1}$.
3. Every sub group of a cyclic group is cyclic
4. Show that f: R→R is defined by f(x) = 1 if x∈Q and f(x) = -1 if x∈ R −Q is discontinuous for all x∈R

Part - II

5. Show that f(x)= |x|+|x − 1| is continuous at x=0,1 but not derivable at x=0,1.
6. Using Lagrange's Mean value Theorem show that $x>\log(1+x)>\frac{x}{1+x}$ if f(x)=log(1+x), x>0
7. If $f(x)=x^2$ on [0, 1] and P={0,1/4,2/4,3/4,1} find U(p, f) and L(p, f)
8. Show that $\lim_{n\to\infty} \sum_{r=1}^{n} \frac{n}{n^2+r^2} = \frac{\pi}{4}$

Section – B (long answer questions)

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

Choosing at least TWO questions from each Part.

Part - I

9. State and prove Fundamental theorem of group homomorphism.
10. If f: G→G^1 is a group homomorphism, then show that "Ker f" is a normal subgroup of G.

11. State and prove Cayley's theorem for permutation groups.

12. If f: [a, b]→R is continuous on [a, b] then f is bounded on [a, b]

Part - II

13. State and prove Rolle's Theorem

14. Find c of Cauchy's Mean value Theorem for $f(x)=\sqrt{x}$; $g(x)=\frac{1}{\sqrt{x}}$ in [a, b] where o<a<b

15. State and prove Fundamental Theorem of Integral calculus

16. Prove that $\frac{1}{\pi} \leq \int_0^1 \frac{\sin \pi x}{1+x^2} dx \leq \frac{2}{\pi}$ by First mean value theorem in integral calculus.

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DEPARTMENT OF MATHEMATICS

Question Paper Guidelines for SEMESTER-END Examinations

Time: 3 Hrs MAT- 401 Max.Marks:70 Min. Mark: 28

Note :- 1) Answer any FOUR questions out of 8 in Section-A. Each question Carries 5 marks. (4x5=20 Marks)

2) Answer any FIVE questions out of 8 in Section-B. Each question Carries 10 marks. (5x10=50 Marks)

Questions to be set as follows:

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short answer questions)	1	2	1	2	2
Section-B (Essay questions)	2	1	1	2	2

---The End---

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

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MATHEMATICS	MAT-501	III B.Sc	w.e.f 2018-19

SEMESTER-V **PAPER-V** **Max.Marks:70**

Hours/ Week: 5 **No. of Credits: 5**

VECTOR CALCULUS &RING THEORY

UNIT – 1: VECTOR DIFFERENTIATION: - **(12 hrs)**

Vector Differentiation, Ordinary derivatives of vectors, Differentiability, Gradient, divergence, Curl operators, Formulae Involving these operators.

UNIT – 2: VECTOR INTEGRATION: - **(10 hrs)**

Line Integral, Surface Integral and Volume integral with examples.

UNIT – 3: VECTOR INTEGRATION APPLICATIONS: - **(12 hrs)**

Theorems of Gauss and Stokes, Green's theorem in plane and applications of these theorems.

UNIT – 4: RINGS-I: - **(14 hrs)**

Definition of Ring and basic properties, Boolean Rings, divisors of zero and cancellation laws Rings, Integral Domains, Division Ring and Fields, The characteristic of a ring – The characteristic of an Integral Domain, The characteristic of a Field. Sub Rings, Ideals

UNIT – 5: RINGS-II: - **(12 hrs)**

Definition of Homomorphism – Homorphic Image – Elementary Properties of Homomorphism – Kernel of a Homomorphism – Fundamental theorem of Homomorphism

Maximal Ideals – Prime Ideals.

Reference Books:-

1. Abstract Algebra by J. Fralieh, Published by Narosa Publishing house.

2. Vector Calculus by SanthiNarayana, Published by S. Chand & Company Pvt. Ltd., New Delhi.

3. A text Book of B.Sc., Mathematics by B.V.S.S.Sarma and others, published by S. Chand & Company Pvt. Ltd., New Delhi.

4. Vector Calculus by R. Gupta, Published by Laxmi Publications.

5. Vector Calculus by P.C. Matthews, Published by Springer Verlagpublicattions.

6. Rings and Linear Algebra by Pundir&Pundir, Published by PragathiPrakashan.

Suggested Activities:

Seminar/ Quiz/ Assignments/ Project on Ring theory and its applications

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DEPARTMENT OF MATHEMATICS

Question Paper Guidelines for SEMESTER-END Examinations

Time: 3 Hrs MAT- 501 Max.Marks:70Min. Mark: 28

Note :-1) Answer any FOUR questions out of 8 in Section-A. Each question Carries 5 marks. (4x5=20 Marks)

2) Answer any FIVE questions out of 8 in Section-B. Each question Carries 10 marks. (5x10=50 Marks)

Questions to be set as follows:

Blue Print for Question Paper pattern.

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short Answer Questions)	2	2	1	2	1
Section-B (Essay Questions)	2	1	2	2	1

-The End -

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE,
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EXAMINATION AT THE END OF FIFTH SEMESTER (w.e.f 2018-19)

MATHEMATICS Paper V MAT- 501 MAX.MARKS: 70 TIME: 3 hrs

(VECTOR CALCULUS AND RING THEORY)

Section – A (short answer questions)

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

Choosing at least ONE question from each Part.

Part - I

1) If r $= a\cos ti + asintj + at\ tan\theta k$ find $|\frac{dr}{dt} \times \frac{d^2r}{dt^2}|$ and $[\frac{dr}{dt}\ \frac{d^2r}{dt^2}\ \frac{d^3r}{dt^3}]$

2) Find div f and curl f where $f = \text{grad}(x^3 + y^3 + z^3 - 3xyz)$.

3) If $F = 3xyi - y^2j$ evaluate $\oint_c F \cdot dr$ where 'c' is the curve $y = 2x^2$ in the xy plane from (0, 0) to (1, 2).

4) If $F = 2xzi - xj + y^2k$ evaluate the $\int_v F \cdot dv$ where v is the region bounded by the surface $x = 0$, $x = 2$, $y = 0$, $y = 6, z = x^2, z = 4$.

Part - II

5) State and prove Green's theorem in a plane.

6) Prove that $Z_m = \{0,1,2,3,.....m-1\}$ is a ring with respect to addition and multiplication modulo 'm'

7) Prove that a field has no Zero divisors.

8) If f is homomorphism of a ring R into a ring R^1 then kerf is an ideal of R

Section – B (long answer questions)

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

Choosing at least TWO questions from each Part.

Part - I

9) Prove thatgrad $(A \cdot B) = (B \cdot \square)A + (A \,.\, \square)B + B \times \text{curl}\, A + A \times \text{curl}\, B$.

10) Evaluate $\int_s F \cdot N ds$ where $F = zi + xj - 3y^2zk$ and s is the surface $x^2 + y^2 = 16$ included in the first octant between z=0 and z =5.

11) State and prove Gauss divergence Theorem.

12) Verify Green's Theorem in the plane for $\oint_c (3x^2 - 8y^2)dx + (4y - 6xy)dy$ where c is the region bounded by $y = \sqrt{x}$ and $y = x^2$.

Part - II

13) Find the directional derivative of the function $f = x^2 - y^2 + 2z^2$at the pointP (1, 2, 3) in the direction of the line PQ where Q = (5, 0, 4).

14) Define Field. Prove that every field is an integral domain.

15) Prove that Q $(\sqrt{2})$ = {a + b$\sqrt{2}$ / a, b ∈ Q} is a ring with respect to ordinary addition and multiplication.

16) State and prove fundamental theorem of ring homomorphism.

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A.G & S.G SIDDHARTHA DEGREE COLLEGE: VUYYURU-521165

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MATHEMATICS **MAT-502** **III B.Sc** **w.e.f 2018-19**

SEMESTER-V **PAPER-VI** **Max.Marks:70**

Hours/ Week: 5 **LINEAR ALGEBRA** **No. of Credits: 5**

UNIT –I Matrix: **(12 hrs)**

Matrices, Elementary Properties of Matrices, Triangular form, Echelon form, Normal form Inverse Matrices, Non – Singular form, Rank of Matrix, Linear Equations, Characteristic Roots, Characteristic Vectors of square Matrix, Cayley – Hamilton Theorem.

UNIT – II Vector Spaces-I: **(12 hrs)**

Vector Spaces, General properties of vector spaces, n-dimensional Vectors, addition and scalar multiplication of Vectors, internal and external composition, Null space, Vector subspaces, Algebra of subspaces, Linear Sum of two subspaces, linear combination of Vectors, Linear span Linear independence and Linear dependence of Vectors.

UNIT –III Vector Spaces-II: **(12 hrs)**

Basis of Vector space, Finite dimensional Vector spaces, basis extension, co-ordinates, Dimension of a Vector space, Dimension of a subspace, Quotient space and Dimension of Quotient space.

UNIT –IV Linear Transformations: **(12 hrs)**

Linear transformations, linear operators, Properties of L.T, sum and product of LTs, Algebra of Linear Operators, Range and null space of linear transformation, Rank and Nullity of linear transformations – Rank – Nullity Theorem.

UNIT –V Inner product space: **(12 hrs)**

Inner product spaces, Euclidean and unitary spaces, Norm or length of a Vector, Schwartz inequality, Triangle in Inequality, Parallelogram law, Orthogonality, Orthonormal set, complete orthonormal set, Gram – Schmidt orthogonalisation process. Bessel's inequality and Parseval's Identity.

Reference Books:

1. Linear Algebra by J.N. Sharma and A.R. Vasista, published by Krishna Prakashan Mandir, Meerut- 250002.
2. Matrices by Shanti Narayana, published by S.Chand Publications.
3. Linear Algebra by Kenneth Hoffman and Ray Kunze, published by Pearson Education (low priced edition), New Delhi.
4. Linear Algebra by Stephen H. Friedberg et al published by Prentice Hall of India Pvt. Ltd. 4th Edition 2007.

Suggested Activities:

Seminar/ Quiz/ Assignments/ Project on "Applications of Linear algebra Through Computer Sciences"

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DEPARTMENT OF MATHEMATICS

Question Paper Guidelines for SEMESTER-END Examinations

Time: 3 Hrs MAT- 502 Max.Marks:70 Min. Mark: 28

Note :-1) Answer any FOUR questions out of 8 in Section-A. Each question Carries 5 marks. (4x5=20 Marks)

2) Answer any FIVE questions out of 8 in Section-B. Each question Carries 10 marks. (5x10=50 Marks)

Questions to be set as follows:

Blue Print for Question Paper pattern.

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short Answer Questions)	2	1	1	2	2
Section-B (Essay Questions)	2	1	1	2	2

-The End -

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EXAMINATION AT THE END OF FIFTH SEMESTER (w.e.f 2018-19)

MATHEMATICS Paper VI MAT- 502 MAX.MARKS: 70 TIME: 3 hrs

LINEAR ALGEBRA

Section – A (short answer questions)

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

Choosing at least ONE question from each Part.

Part - I

1) Show that the rank of the transpose of a matrix is equal to the rank of the original matrix. i.e., $\rho(A) = \rho(A^T)$.

2) Find the rank of the matrix $\begin{bmatrix} 1 & -2 & 2 & -3 \\ 4 & 1 & 0 & 2 \\ 0 & 3 & 0 & 4 \\ 0 & 1 & 0 & 2 \end{bmatrix}$ by reducing it in the Normal form

3) If S is a subset of a vector space V(F), then prove that S is a subspace of V$\Leftrightarrow L(S) = S$

4) Let w1 and w2 be two subspaces of R^4 given by w_1 ={(a,b,c,d) ;b-2c+d=0}, w_2={(a,b,c,d); a=d, b=2c}.Find the basis and dimension (i)w_1 (ii)w_2 (iii) $w1 \cap w2$ and hence find the $dim(w1 + w2)$

Part - II

5) Let T:$R^2 \rightarrow R^2$ be a linear transformation defined by T(1,0)=(1,1),T(0,1)=(-1,2) then find a linear transformation T

6) The mapping T: $V_3(R) \rightarrow V_2(R)$ is defined by T(x, y, z) = (x – y , x – z) is a linear transformation.

7) State and prove Cauchy – Schwarz's inequality

8) State and prove Triangle inequality

Section – B (long answer questions)

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

Choosing at least TWO questions from each Part.

Part - I

9) State and prove Cayley – Hamilton theorem in Matrices.

10) Find the characteristic roots and the corresponding characteristic vectors of the matrix

$A = \begin{bmatrix} 1 & 4 \\ 3 & 2 \end{bmatrix}$

11) Let V (F) be a vector space. A non-empty set W⊆V. The necessary and sufficient condition for W to be a subspace of V is a,b ∈F and $\alpha, \beta \in V \Longrightarrow a\alpha + b\beta \in W$

12) Let W be a subspace of a finite dimensional vector space V(F) then

$\dim V/W = dimV - dimW$.

Part - II

13) Find the linear Transformation T(x, y, z) where T : $R^3 \rightarrow R$ isdefined by

T(1, 1, 1) = 3, T(0, 1, -2) = 1 and T(0, 0, 1) = -2.

14) State and prove Rank-nullity theorem

15) State and prove Bessel's inequality

16) If (1, 0, 1, 1) (-1, 0,-1, 1) (0,-1, 1, 1) forms a basis of a subspace of $R^4(R)$use Gram-Schmidt process to obtain an orthonormal basis.

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MATHEMATICS	**MAT-601GE**	**w.e.f.2018-19**	**III B.Sc**

SEMESTER-VI **PAPER-VII** **Max.Marks:70**

Hours/ Week: 5 **No.of Credits: 5**

ELECTIVE–VII-(B); NUMERICAL ANALYSIS

UNIT- I: **10 hours**

Errors in Numerical computations: Errors and their Accuracy, Mathematical Preliminaries, Errors and their Analysis, Absolute, Relative and Percentage Errors, A general error formula, Error in a series approximation.

UNIT – II: **12 hours**

Solution of Algebraic and Transcendental Equations: The bisection method, the iteration method, the method of false position, Newton Raphson method, Generalized Newton Raphson method.

UNIT – III: **12 hours**

Finite Differences and Interpolation: Errors in polynomial interpolation, Finite Differences, Forward differences, Backward differences, Symbolic relations, Detection of errors by use of Differences Tables, Differences of a polynomial, Newton's formulae for interpolation

UNIT – IV: **12 hours**

Central Differences: Central Differences, Central Difference Interpolation Formulae, Gauss's central difference formulae, Stirling's central difference formula, Bessel's Formula, Everett's Formula.

UNIT – V: **14 hours**

Interpolation – III:

Interpolation with unevenly spaced points, Lagrange's formula, Error in Lagrange's formula, Divided differences and their properties, Relation between divided differences and forward differences, Relation between divided differences and backward differences Relation between divided differences and central differences, Newton's general interpolation Formula, Inverse interpolation.

Reference Books:

1. Numerical Analysis by S.S.Sastry, published by Prentice Hall of India Pvt. Ltd., New Delhi. (Latest Edition)
2. Numerical Analysis by G. SankarRao published by New Age International Publishers, New – Hyderabad.
3. Finite Differences and Numerical Analysis by H.C Saxena published by S. Chand and Company, Pvt. Ltd., New Delhi.
4. Numerical methods for scientific and engineering computation by M.K.Jain, S.R.K.Iyengar, R.K. Jain.

Suggested Activities:

Seminar/ Quiz/ Assignments

A.G & S.G SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE,
VUYYURU – 521165, KRISHNA Dt., A.P.
(An Autonomous College in the jurisdiction of Krishna University, Machilipatnam)
Accredited with "A" Grade by NAAC, Bengaluru
EXAMINATION AT THE END OF SIXTH SEMESTER (w.e.f 2018-19)

MATHEMATICS Paper VII MAT- 601GE MAX.MARKS: 70 TIME: 3 hrs

ELECTIVE–VII-(B):NUMERICAL ANALYSIS

Section – A (short answer questions)

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

Choosing at least ONE question from each Part.

PART - I

1. Evaluate the sum $S = \sqrt{3} + \sqrt{5} + \sqrt{7}$ to four significant digits and find its absolute and relative errors.
2. Find the real root of the equation $x^3 + x - 1 = 0$ by Iteration method, given that the root lies near 1
3. Find the real root of the equation $x\log_{10} x = 1.2$ by Newton – Raphson method
4. Prove that $\mathbf{e^x} = \left(\frac{\Delta^2}{E}\right) \mathbf{e^x} \frac{\mathbf{Ee^x}}{\mathbf{\Delta^2 e^x}}$ the interval of differencing being unity.

PART - II

5. If $u_0 = 3$, $u_1 = 12$, $u_2 = 81$, $u_3 = 200$, $u_4 = 100$, $u_5 = 8$ find the value of $\Delta^5 u_0$
6. Prove that i) $\mu^2 = 1 + \frac{1}{4}\delta^2$ ii) $\Delta = \frac{1}{2}\delta^2 + \delta\sqrt{1 + \frac{1}{4}\delta^2}$
7. Apply Gauss's Forward formula to find the value of u_9 if $u_0 = 14$, $u_4 = 24$, $u_8 = 32$, $u_{12} = 35$, $u_{16} = 40$
8. Find the third divided difference for the function $f(x) = x^3+x+2$ for the arguments 1, 3, 6, 11

Section – B (long answer questions)

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

Choosing at least TWOquestion from each Part.

PART - I

9. If $U = 5xy^2/z^3$ then find relative maximum error in U, given that $\Delta x = \Delta y = \Delta z = 0.001$ and $x = y = z = 1$
10. Find the real root of the equation $x^2 - 4x - 10 = 0$ by bisection method.
11. Find the real root of the equation $x^3 - 2x - 5 = 0$ by Regula – Falsi method.
12. State and prove Newton's Gregory forward interpolation formula

PART - II

13. The following table gives the marks obtained by 100 students in Mathematics in a certain examination

Marks obtained:	30-40	40-50	50-60	60-70	70-80
No.of Students:	25	35	22	11	7

How many students got more than 55 marks.

14. The population of town is as follows. Find the population for the year 1956 by Gauss's Backward formula from the following table

Year	:	1931	1941	1951	1961	1971
Population (in thousand)	:	15	20	27	39	52

15. State and prove Stirling's formula

16. State and prove Newton's Divided difference formula

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MATHEMATICS	**MAT-602CE**	**w.e.f.2018-19**	**III B.Sc**

SEMESTER-VI **PAPER-VIII** **Max.Marks:70**

Hours/ Week: 5 **No.of Credits: 5**

Cluster Elective- VIII-A-1: INTEGRAL TRANSFORMS UNIT–

1:Application of Laplace Transform to solutions of Differential Equations 12 hrs

Solutions of ordinary Differential Equations. Solutions of Differential Equations with constants co-efficient Solutions of Differential Equations with Variable co-efficient

UNIT – 2:Application of Laplace Transform : - **12 hrs**

Solution of simultaneous ordinary Differential Equations.Solutions of partial Differential Equations.

UNIT – 3:Application of Laplace Transforms to Integral Equations : - **12 hrs**

Integral Equations-Abel's, Integral Equation-Integral Equation of Convolution Type, Integro Differential Equations. Application of L.T. to Integral Equations.

UNIT –4: Fourier Transforms-I : - **12 hrs**

Definition of Fourier Transform – Fourier'sine Transform – Fourier cosine Transform – Linear Property of Fourier Transform – Change of Scale Property for Fourier Transform – sine Transform and cosine transform shifting property – modulation theorem.

UNIT – 5: Fourier Transform-II : - **12 hrs**

Convolution Definition – Convolution Theorem for Fourier transform – parseval'sIndentify Relationship between Fourier and Laplace transforms – problems related to Integral Equations.

Finte Fourier Transforms : -

Finte Fourier Sine Transform – Finte Fourier Cosine Transform – Inversion formula for sine and cosine Transforms only statement and related problems.

Reference Books :-

1. Integral Transforms by A.R. Vasistha and Dr. R.K. Gupta Published by Krishna Prakashan Media Pvt. Ltd. Meerut.

2. A Course of Mathematical Analysis by ShanthiNarayana and P.K. Mittal, Published by S. Chand and Company pvt. Ltd., New Delhi.

3. Fourier Series and Integral Transforms by Dr. S. Sreenadh Published by S.Chand and Company Pvt. Ltd., New Delhi.

4. Lapalce and Fourier Transforms by Dr. J.K. Goyal and K.P. Gupta, Published by Pragathi Prakashan, Meerut.

5. Integral Transforms by M.D. Raising hania, - H.C. Saxsena and H.K. Dass Published by S.Chand and Company pvt. Ltd., New Delhi.

Suggested Activities:

Seminar/ Quiz/ Assignments

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MATHEMATICS	**MAT-603CE**	**w.e.f.2018-19**	**III B.Sc**
SEMESTER-VI	**PAPER-VIII**		**Max.Marks:70**
Hours/ Week: 5		**No.of Credits: 5**	

ELECTIVE – VIII-A-2: ADVANCED NUMERICAL ANALYSIS

Unit – I Curve Fitting: **10 Hours**

Least – Squares curve fitting procedures, fitting a straight line, Polynomial fitting, Curve fitting by a power functions and exponential function.

UNIT- II Numerical Differentiation: **12 hours**

Derivatives using Newton's forward difference formula, Newton's backward difference formula, Derivatives using central difference formula, stirling's interpolation formula, Newton's divided difference formula, Maximum and minimum values of a tabulated function.

UNIT- III Numerical Integration: **12 hours**

General quadrature formula, Trapezoidal rule, Simpson's 1/3 – rule, Simpson's 3/8 – rule, Boole's rule and Weddle's rules (only problems),

UNIT – IV Solutions of simultaneous Linear Systems of Equations: **14 hours**

Solution of linear systems – Direct methods, Matrix inversion method, Gaussian elimination methods, Gauss-Jordan Method , Method of factorization. Iterative methods – Jacobi's method, Gauss-siedal method.

UNIT – V Numerical solution of ordinary differential equations: **12 Hours**

Introduction, Solution by Taylor's Series, Picard's method of successive approximations, Euler's method, Modified Euler's method, Runge – Kutta methods.

Reference Books :

1. Numerical Analysis by S.S.Sastry, published by Prentice Hall India (Latest Edition).
2. Numerical Analysis by G. SankarRao, published by New Age International Publishers, Hyderabad.
3. Finite Differences and Numerical Analysis by H.C Saxena published by S. Chand and Company, Pvt. Ltd., New Delhi.
4. Numerical methods for scientific and engineering computation by M.K.Jain, S.R.K.Iyengar, R.K. Jain.

Suggested Activities:

Seminar/ Quiz/ Assignments

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MATHEMATICS	**MAT-604CE**	**w.e.f.2018-19**	**III B.Sc**
SEMESTER-VI	**PAPER-VIII**		**Max.Marks:70**
Hours/ Week: 5		**No.of Credits: 5**	

ELECTIVE – VIII-A-3: Project

Applications of advanced Numerical Analysis with 'C' Programme

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EXAMINATION AT THE END OF SIXTH SEMESTER (w.e.f 2018-19)

MATHEMATICS Paper VIII MAT-602CE MAX.MARKS: 70 TIME: 3 hrs

Cluster Elective- VIII-A-1: INTEGRAL TRANSFORMS

Section – A (short answer questions)

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

Choosing at least ONE question from each Part.

PART – I

1. Solve $(D^2 – 2D + 2)y = 0$, $y = Dy = 1$, when $t = 0$.
2. Solve $(D^2 – 3D + 2)y = 1 – e^{2t}$, if $y = 1$, $Dy = 0$, when $t = 0$.
3. Solve $(D – 2)x + 3y = 0$, $2x + (D – 1)y = 0$ if $x(0) = 8$ and $y(0) = 3$.
4. Solve $\frac{\partial y}{\partial x} = 2\frac{\partial y}{\partial t} + y$, $y(x, 0) = 6e^{-3x}$ which is bounded for $x > 0, t > 0$.

PART – II

5. Convert $\boldsymbol{y}''(t) – 3\boldsymbol{y}'(t) + 2y(t) = 4 \sin t$, $y(0) = 1$, $\boldsymbol{y}'(0) = -2$ into integral equation.
6. Solve the integral equation $F(t) = t + 2\int_0^t \cos(t - u)\, F(u)\, du$.
7. Find the Fourier sine and cosine transform of $f(x) = x$
8. Show that $\int_o \frac{\cos \lambda x}{\lambda^2+1} d\lambda = \frac{\pi}{2} e^{-x}$, $x \geq 0$.

Section – B (long answer questions)

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

Choosing at least TWOquestion from each Part.

PART – I

9. Solve $(D + 1)^2 = t$, given that $y = - 3$, when $t = 0$ and $y = -1$ when $t = 1$.
10. Solve $\boldsymbol{y}'' – t\,\boldsymbol{y}' + y = 1$ if $y(0) = 1$, $\boldsymbol{y}'(0) = 2$.
11. Solve $(D^2 – 3)x – 4y = 0$, $x + (D^2 + 1)y = 0$, $t > 0$ if $x = y = Dy = 0$, $Dx = 2$.
12. Solve $\frac{\partial y}{\partial t} = \frac{\partial^2 y}{\partial x^2}$, $y(\frac{\pi}{2}, t) = 0$, $(\frac{\partial y}{\partial x})_{x=0} = 0$ and $y(x,0) = \cos 3x$.

PART – II

13. Solve the integral equation F(t) = $1 + \int_0^t F(u)\sin(t-u)\,du$ and verify your solution.

14. Solve the integral equation $\int_o^t \frac{F(u)du}{\sqrt{(t-u)}} = 1 + t + t^2$.

15. Find the Fourier transform of f(x) defined by f(x) = $\begin{cases} 1, |x| < a \\ 0, |x| > a \end{cases}$ and hence evaluate

i) $\int_{-\infty}^{\infty} \frac{sinpa\ cospx}{p}\,dp$ ii) $\int_0^{\infty} \frac{sinp}{p}\,dp$.

16. Find the finite Fourier sine and cosine transforms of the function f(x) = 2x, 0<x<4.

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EXAMINATION AT THE END OF SIXTH SEMESTER (w.e.f 2018-19)

MATHEMATICS Paper VIII MAT-603CE MAX.MARKS: 70 TIME: 3 hrs

Cluster Elective VIII-A-2: ADVANCED NUMERICAL ANALYSIS

Section – A (short answer questions)

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

Choosing at least ONE question from each Part.

PART – I

1. Find the least square line y = a + bx for the data

Xi:	-2	-1	0	1	2
Yi:	1	2	3	3	4

2. Find $f^{1}(5)$ from the following table

x:	1	2	4	8	10
f(x):	0	1	5	21	27

3. Evaluate $\int_0^1 \frac{1}{1+x^2}$ dx by Trapezoidal rule
4. Evaluate $\int_0^4 e^x$ dx by Simpson's $\frac{1}{3}$ rule

PART – II

5. Solve 3x + y + 2z = 3, 2x – 3y – z = -3, x + 2y + z = 4 by Matrix inversion method
6. Solve x + y + z = 9, 2x + 5y +7z = 52, 2x + y – z = 0 by Cramer's rule
7. Given D.E is $\frac{dy}{dx}$ = 1 + xy with y = 1 when x = 0 compute y(0.1)
8. Solve the equation $y^{1} = -y$ with y(0) = 1 for x = 0.04 in four steps

Section – B (long answer questions)

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

Choosing at least TWOquestion from each Part.

PART – I

9. Find the least square power function of the form $y = ax^b$ for the data

X_i:	1	2	3	4
Y_i:	3	12	21	35

10. Using the given table find $\frac{dy}{dx}$ and $\frac{d^2y}{dx^2}$ at x = 1.2

x:	1.0	1.2	1.4	1.6	1.8	2.0	2.2
y:	2.7183	3.3201	4.0552	4.9530	6.0496	7.3891	9.0250

11. Find the value of $\int_0^1 \frac{1}{1+x^2}$ dx by using simpson's 3/8 rule and hence find the value of " π"

12. Evaluate $\int_4^{5.2} logx$ dx by using Weddle's rule.

PART – II

13. Solve 2x + y + z = 10, 3x + 2y + 3z = 18, x + 4y + 9z = 16 by Gauss elimination method

14. Solve 3x + 2y + 4z = 7, 2x + y + z = 7, x + 3y + 5z = 2 by Factorization method

15. Solve the D.E $\frac{dy}{dx} = 1 + y^2$, y(0) = 0 by Picard's method

16. Given $\frac{dy}{dx} = y - x$ with y (0) = 2 find y (0.1) and y (0.2) correct to four decimal places by RK method.

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EXAMINATION AT THE END OF SIXTH SEMESTER (w.e.f 2018-19)

MATHEMATICS Paper VIII MAT-604CE MAX.MARKS: 70 TIME: 3 hrs

Cluster Elective- VIII-A-3: PROJECT

Applications of advanced Numerical Analysis with 'C' Programme

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DEPARTMENT OF MATHEMATICS

Guidelines of III B.Sc for Question Paper Setters VI Semester-End Exams: 2018-19

Time: 3 Hrs **Elective.MAT- 601GE** Max.Marks:70

Paper Title : Numerical analysis

Note :- 1). Answer any FOUR questions out of 8 in Section-A.
Each question carries 5 marks. (4x5=20 Marks)

2). Answer any FIVE questions out of 8 in Section-B.
Each question carries 10 marks. (5x10 =50 marks)

Questions to be set as follows:

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short Answer Questions)	1	2	2	2	1
Section-B (Essay Questions)	1	2	2	2	1

-The End -

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DEPARTMENT OF MATHEMATICS

Guidelines of III B.Sc for Question Paper Setters VI Semester-End Exams: 2018-19

Time: 3 Hrs **Cluster.MAT- 602CE** Max.Marks:70

Paper Title: Integral Transforms

Note :- 1). Answer any FOUR questions out of 8 in Section-A.
Each question carries 5 marks. (4x5=20 Marks)

2). Answer any FIVE questions out of 8 in Section-B.
Each question carries 10 marks. (5x10 =50 marks)

Questions to be set as follows:

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short Answer Questions)	2	2	2	1	1
Section-B (Essay Questions)	2	2	2	1	1

-The End -

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DEPARTMENT OF MATHEMATICS

Guidelines of III B.Sc for Question Paper Setters VI Semester-End Exams: 2018-19

Time: 3 Hrs **Cluster.MAT- 603CE** Max.Marks:70

Paper Title: Advanced Numerical Analysis

Note :- 1). Answer any FOUR questions out of 8 in Section-A.
Each question carries 5 marks. (4x5=20 Marks)

2). Answer any FIVE questions out of 8 in Section-B.
Each question carries 10 marks. (5x10 =50 marks)

Questions to be set as follows:

	Unit-1	Unit-2	Unit-3	Unit-4	Unit-5
Section-A (Short Answer Questions)	1	1	2	2	2
Section-B (Essay Questions)	1	1	2	2	2

-The End -

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

DEPARTMENT OF PHYSICS

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

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 11-04-2018 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) (Asst. Prof. R.V.S.S.N. Ravi Kumar)	University Nominee	Professor, Department of Physics, Acharya Nagarjuna University, Guntur.
3) (Dr.G. Srinivas Rao)	Academic Council Nominee	Reader in Physics, Andhra Loyola College, Vijayawada.
4) (Dr. K. Suresh)	Academic Council Nominee	Lecturer in Physics, VSR & NVR College for Arts & Sciences Tenali.
5) (P.V. Ramana)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
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)	Member	Lecturer in Physics, A.G. & S.G.S.Degree College of Arts & Science, Vuyyuru - 521165.
9) (Ch. Jayasri)	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 and II semesters of I Degree B.Sc., Physics for the Academic year 2018-2019.

2. To recommend the syllabi and model papers for III and IV semesters of II Degree B.Sc., Physics for the Academic year 2018-2019.

3. To recommend the syllabi and model papers for V and VI semesters of III Degree B.Sc. Physics for the Academic year 2018-19.

4.To recommend the Blue print of question papers for I,II,III,IV,V & VI semesters of B.Sc. Physics for the Academic year 2018-19.

5. To recommend the Guidelines to be followed by the question paper setters in Physics for I, II, III,IV,V & VI 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 continue the same **syllabi for I & II semesters of I B.Sc.** under Choice Based Credit System (CBCS) for the Academic year 2018-19 also.
2) It is resolved to continue the same **syllabi and model papers** under Choice Based Credit System (CBCS) for **III and IV semesters of II B.Sc.** for the Academic year 2018-19 also.
3) It is resolved to follow the **syllabi and model papers** under Choice Based Credit System (CBCS) prescribed by Krishna University for **V and VI semesters of III B.Sc.**

- It is resolved to follow electives and clusters for VI semester for the academic year 2018-19.

4) It is resolved to change the **Blue prints** of I, II semesters of Degree IB.Sc. for the Academic year 2018-19.

- It is resolved to continue the same **Blue prints** of III, IV, V and VI semesters of Degree B.Sc. for the Academic year 2018-19.

5) It is resolved to change the **Guidelines** of I, II semesters of Degree IB.Sc. for the Academic year 2018-19.

- It is resolved to continue the same **Guidelines** of III, IV, V and VI semesters of Degree B.Sc. for the Academic year 2018-19.

6) It is resolved to continue the following teaching and evolution methods for Academic year 2018-19.

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 and II) 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 B.Sc.**
- For II&III B.Sc**(i.e. III, IV,V,andVI semesters)** out of 100 marks in each paper, 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.**

➢ **Semester – End Examination:**

- The maximum marks for IB.Sc Semester – End examination shall be 70 marks and duration of the examination shall be 3 hours.
- 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** in theory papers and **practical Examinations** shall be conducted at the end of every semester **I,II,III,IV,V&VI for I, II &III B.Sc.**

7) Discussed and recommended for organizing **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 Physics to suggest the panel of paper setters and examiners to the controller of examinations.
9) Proposed to conduct add on Programme /Certificate course.

Chairman.

DEPARTMENT OF PHYSICS

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

(AUTONOMOUS) , VUYYURU – 521 165

I B.Sc. 1st Semester (2018-2019)

Physics Paper I: Mechanics & Properties of Matter

Work load: 60hrs per semester **4 hrs/week**

UNIT I (14 hrs)

1. Vector Analysis :

Scalar and vector fields, gradient of a scalar field and its physical significance. Divergence and curl of a vector field with derivations and physical interpretation. Vector integration (line, surface and volume), State and proof of Gauss and Stokes theorem.

UNIT II : (10hrs)

2. Mechanics of particles:

Laws of motion, motion of variable mass system, motion of a rocket. Conservation of energy and momentum. Collisions in two and three dimensions. Concept of impact parameter, scattering cross-section.

UNIT III (16 hrs)

3. Mechanics of Rigid bodies : 10 hrs

Definition of rigid body, rotational kinematic relations, equation of motion for a rotating body, angular momentum. Euler equation,applications, precession of a top. Gyroscope, precession of the equinoxes.

4. Mechanics of continuous media : 6hrs

Elastic constants of isotropic solids and their relation, Poisson's ratio and expression for Poisson's ratio in terms of y, n, k. Classification of beams, types of bending, point load, distributed load, shearing force and bending moment, sign conventions.

UNIT IV (10Hrs)

5. Central forces :

Central forces, definition and examples, conservative nature of central forces, conservative force as a negative gradient of potential energy, equation of motion under a central force. Derivation of Kepler's laws. Motion of satellites.

UNIT V (10 hrs)

6. Special theory of relativity :

Galilean relativity, absolute frames. Michelson-Morley experiment, negative result. Postulates of special theory of relativity. Lorentz transformation, time dilation, length contraction, addition of velocities, mass-energy relation.

Reference Books:

1. BSc Physics -Telugu Akademy, Hyderabad
2. Mechanics - D.S. Mathur, *Sulthan Chand & Co, New Delhi*
3. Mechanics - J.C. Upadhyaya, *Ramprasad& Co., Agra*
4. Properties of Matter - D.S. Mathur, *S.Chand& Co, New Delhi ,11thEdn.,2000*
5. Physics Vol. I - Resnick-Halliday-Krane ,*Wiley, 2001*
6. Properties of Matter - Brijlal&Subrmanyam ,*S.Chand&Co. 1982*
7. Dynamics of Particles and Rigid bodies– Anil Rao, *Cambridge Univ Press, 2006*
8. Mechanics-EM Purcell, *McGraw Hill*

The Guidelines to be followed by the question paper setters in Physics for the First semester - end exams (2018-2019)

PAPER TITLE: Mechanics & Properties of Matter

Paper- I Semester – I Maximum marks: 70 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 (30 Marks)	**T+P**	**2**
Unit-3 (20 Marks)	**T+P**	**1**
Unit-4 (20 Marks)	**T+P**	**1**
Unit-5 (25 Marks)	**T**	**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.

A.G. &S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), VUYYURU. Year (2018-2019)

SEMESTER – I	**COURSE CODE : PHY- 101C**
PAPER TITLE : Mechanics and Properties of Matter	

Duration : 3Hours Maximum marks : 70 marks Pass marks : 28 marks

MODEL PAPER

PAPER TITLE : Mechanics and Properties of Matter

Duration : 3Hours Maximum marks : 70 marks Pass marks : 28 marks

Section – A

Answer any Four of the following questions 4x5=20m

1. Define and Explain the gradient of a scalar field.
2. Write a note on impact parameter.
3. Write a note on Gyroscope.
4. What is Central Force? Give to Two examples.
5. Explain length contraction.

6. If the earth be one – half of its present distance From the sun, What will be the number of days in a year.
7. Calculate the poisson's ratio For Silver Given Its Young's modulus = 7.25×10^{10} N/m^2 and bulk modulus = 11×10^{10} N/m^2.
8. A rocket burns 0.05 kg Fuel per Second and ejects the burnt gases with a velocity of 5000m/s
   Find the reaction?

Section – B

Answer any FIVE of the following questions 5X10=50M

9. State and prove gauss's theorem of divergence.

10. What is divergence and curl of a vector field with derivations and their physical Interpretation?

11. Derive an expression for the velocity of a variable mass System.
12. Derive an expression for the velocity of rocket at any time.
13. Define Y,n,K and derive the relation among them.
14. State kepler's laws of planetary motion. Derive kepler's first laws of planetary motion.

15. State the postulates of special theory of relativity. Derive the Lorentz transformation equation
16. Describe the Michelson – Morley Experiment with relevant theory and discuss the importance of its result.

Practical paper 1: Mechanics

Exam duration : 3Hours Maximum marks : 50 marks

Work load: 30 hrs per semester

Minimum of 6 experiments to be done and recorded

1. Volume resonator
2. Viscosity of liquid by the flow method (Poiseuille's method)
3. Young's modulus material a rod by uniform bending
4. Young's modulus material a rod by non- uniform bending
5. Surface tension of a liquid by the method of drops
6. Surface tension of a liquid by capillary rise method
7. Determination of radius of capillary tube by Hg thread method **8.**Viscosity of liquid by logarithmic decrement method
9. Bifilar suspension –moment of inertia.
10. Rigidity modulus of material of a wire-dynamic method (torsional pendulum)
11. Fly-wheel
12. Determination of Y of bar –cantilever.

DEPARTMENT OF PHYSICS

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

(AUTONOMOUS), VUYYURU – 521 165

I B.Sc. 2nd Semester (2018-2019)

Paper II: Waves & Oscillations **II SEMESTER**

Work load:60 hrs per semester **4 hrs/week**

UNIT- I

1. Simple Harmonic oscillations :12 hrs

Simple harmonic oscillator and solution of the differential equation-Physical characteristics of SHM, torsion pendulum-measurements of rigidity modulus,compound pendulum-measurement of 'g', combination of two mutually perpendicular simple harmonic vibrations of same frequency and different frequencies. Lissajous figures.

UNIT- II

2. Damped and forced oscillations :12 hrs

Damped harmonic oscillator, solution of the differential equation of damped oscillator. Energy considerations, comparison with un-damped harmonic oscillator, logarithmic decrement, relaxation time, quality factor, differential equation of forced oscillator and its solution, amplitude resonance and velocity resonance.

UNIT- III

3. Complex vibrations : 10 hrs

Fourier theorem and evaluation of the Fourier coefficients, analysis of periodic wave functions-square wave, triangular wave, saw tooth wave

UNIT -IV

4. Vibrating strings :8 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, energy transport and transverse impedance.

5. Vibrations of bars :9 hrs

Longitudinal vibrations in bars-wave equation and its general solution. Special cases i) bar fixed at both ends ii) bar fixed at the mid point iii) bar free at both ends iv) bar fixed at one end. Tuning fork.

UNIT- V

6. Ultrasonics :9 hrs

Ultrasonics, properties of ultrasonic waves, production of ultrasonics by piezoelectric and magnetostriction methods, detection of ultrasonics, determination of wavelength of ultrasonic waves. Applications of ultrasonic waves.

Reference Books:

1. BSc Physics -Telugu Akademy, Hyderabad
2. First Year Physics - *Telugu Academy*.
3. Fundamentals of Physics. Halliday/Resnick/Walker ,*Wiley India Edition 2007*.
4. Waves and Oscillations. S. Badami, V. Balasubramanian and K. Rama Reddy *Orient Longman*.
5. Mechanics of Particles, Waves and Oscillations. Anwar Kamal, *New Age International*.
6. College Physics-I. T. Bhimasankaram and G. Prasad. *Himalaya Publishing House*.
7. Introduction to Physics for Scientists and Engineers. F.J. Ruche. *McGraw Hill*.
8. Waves and Oscillations. N. Subramaniyam and Brijlal *Vikas Publishing House Private Limited*.

9. Unified Physics Vol.I Mechanics, Waves and Oscillations – *Jai Prakash Nath &co.*
10. Science and Technology of Ultrasonics- Bladevraj, *Narosa, New Delhi,2004*

The Guidelines to be followed by the question paper setters in Physics for the Second semester - end exams (2018-2019)

PAPER TITLE: Waves & Oscillations

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(30 Marks)	**T+P**	**2**
Unit-2(30 Marks)	**T+P**	**2**
Unit-3(15 Marks)	**T**	**1**
Unit-4(20 Marks)	**T+P**	**1**
Unit-5(25 Marks)	**T**	**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.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS),VUYYURU

SEMESTER – II	COURSE CODE : PHY-201 C
PAPER TITLE : Waves and Oscillations	

Duration : 3Hours Maximum marks : 70marks Pass marks : 28 marks

MODEL PAPER – Sem II

PAPER TITLE : Waves and Oscillations

Duration : 3Hours Maximum marks : 70marks Pass marks : 28 marks

SECTION-A

Answer any FOUR of the following **4x5=20m**

1. write any five application of ultrasonic.
2. Explain fundamental frequency, overtone and harmonics
3. Write the physical characteristics of simple harmonic oscillator
4. Explain amplitude resonance
5. State and prove fourier theorem.
6. A steel wire of length 150cm has 5gm mass it is stretched with a tension of 200n the velocity of transverse wave travelling in the wire
7. Calculate the fundamental frequency of a quartz crystal of thickness 0.001m. Given $y=7.9x10^{10}$ n/m^2 $p=2650kg/m^3$
8. The Q-factor of an oscillator is 500. Find its initial energy it its amplitude is 0.01m. Also calculate the energy lost in first cycle. Given $S=m^2=100n/m^2$

SECTION-B

Answer any FIVE of the following 5x10=50m

9. What is the simple harmonic oscillator? Derive equation of motion of the simple harmonic oscillator and its solution.
10. Derive the equation for the combination of two mutually perpendicular simple harmonic vibration of equal frequency.
11. What is damped oscillator? Derive the expression for energy of a damped oscillator.
12. What is forced oscillation? Derive the differential equation of forced oscillation. Obtain its solution
13. Deduce the frequencies longitudinal vibration of a bar clamped at both ends.
14. State Fourier's theorem and use if to analysis of a square wave.
15. Explain the production of ultrasonic by magnetostriction method
16. Describe the how ultrasonic waves are produced by piezo electric effect.

Practical Paper 2: Waves & Oscillations

Exam duration : 3Hours Maximum marks : 50 marks

Work load: 30 hrs per semester

Minimum of 6 experiments to be done and recorded.

1. Determination of 'g' by compound/bar pendulum
2. Simple pendulum normal distribution of errors-estimation of time period and the error of the mean by statistical analysis
3. Determination of the force constant by static and dynamic method and evaluation of 'g'.
4. Determination of the elastic constants of the material of a flat spiral spring.
5. Determination of moment of inertia of a cylindrical rod -bifilar suspension
6. Coupled oscillators
7. Verification of laws of vibrations of stretched string –sonometer
8. Determination of velocity of transverse wave along a stretched string-sonometer
9. Determination of frequency of a bar –Melde's experiment.
10. Study of a damped oscillation using the torsional pendulum immersed in liquid-decay constant and damping correction of the amplitude.
11. Searls viscometer
12. Lissajous figures-CRO

DEPARTMENT OF PHYSICS

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

(AUTONOMOUS), VUYYURU – 521 165

II B.Sc. 3rd Semester (2018-2019)

Paper III: Wave Optics

Work load:60 hrs per semester **4 hrs/week**

III SEMESTER

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 .. (14 hrs)

2. Interference :

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 –change of phase on reflection-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- III .. (12 hrs)

3. 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- IV ..(10 hrs)

4.Polarisation: 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.

UNIT- V .. (17 hrs)

5. 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.

6. Fiber Optics: 7 hrs

Introduction- different types of fibers, rays and modes in an optical fiber, fiber material, principles of fiber communication (qualitative treatment only), advantages of fiber optic communication.

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: 75 marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A	Section-B

	(Short answer questions)	(essay questions)
Unit-1(20 Marks)	**T+P**	**1**
Unit-2(30 Marks)	**T+P**	**2**
Unit-3(25 Marks)	**T**	**2**
Unit-4(20 Marks)	**T+P**	**1**
Unit-5(25 Marks)	**T**	**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 **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 – III	COURSE CODE : PHY- 301 C
PAPER TITLE : Wave Optics	

Duration : 3Hours Maximum marks : 75 marks Pass marks : 30 marks

MODEL PAPER

II B.Sc (PHYSICS) - III SEMESTER - WAVE OPTICS

TIME: 3 HRS PHY – 301 C MAX MARKS: 75

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SECTION – A

ANSWER ANY FIVE OF THE FOLLOWING (5 X 5 = 25 M)

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 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

II B.Sc. 4th Semester (2018-2019)

Paper IV: Thermodynamics &Radiation Physics

Work load:60 hrs per semester **4 hrs/week**

IV SEMESTER

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-Carnnot'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 and Vanderwaal's gas.

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-Disappearing filament optical pyrometer-experimental determination-Angstrompyrheliometer-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: 75 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**	**1**
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 **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 : PHY- 401 C

PAPER TITLE : THERMODYNAMICS AND RADIATION PHYSICS

Duration : 3Hours Maximum marks : 75 Pass marks : 30

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: 75**

SECTION – A

ANSWER ANY FIVE OF THE FOLLOWING **(5 X 5 = 25 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 chloro flouro carbons on ozone layer
5) Define black body. Explain about ferrys black body
6) Calculate the efficiency of a reversible carnots 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) What is Joule-Kelvin effect? Derive an expression for the cooling produced when a real gas suffers Joule-Thomson effect.
14) Explain the method of adiabatic demagnetization for producing low temperatures
15) State Planck's hypothesis and derive Planck's law.
16) What is a pyrometer? Describe the construction and working of Disappearing filament optical pyrometer

Practical Paper IV: Thermodynamics

Exam duration : 3Hours Maximum marks : 50 marks

Work load: 30 hrs

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. 5th Semester (2018-2019)
Paper V: Electricity, Magnetism and Electronics

Work load:60 hrs per semester **4 hrs/week**

V SEMESTER **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 theorem (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: 75 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 **5**, 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 : 75 Pass marks : 30 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: 75**

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SECTION – A

ANSWER ANY FIVE OF THE FOLLOWING **(5 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.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS), VUYYURU – 521 165
III B.Sc. Physics – V Semester – Paper –VI (2018 – 19)

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 –Heisenberg's uncertainty principle for position and momemtum (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: 75 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 **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 – V	COURSE CODE : PHY-502 C

PAPER TITLE : Modern Physics

Duration : 3Hours Maximum marks : 75 Pass marks : 30 marks

Model Paper

III B.Sc. Physics – V Semester – Paper –VI (2018 – 19)
Modern Physics

Paper Code : PHY 502C **Max.Marks:75**

SECTION-A

Answer any **FIVE** questions : (**5x5=25M)**

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. Desribe 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.

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III B.Sc. Physics – VI Semester – Paper –VII (2018 – 19)

Elective VII (A):(Electronics) Course Code: PHY - 601c

SEMISTER-VI **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, ECL 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: 75 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

- **Section-A** contains **6** short questions and **2** 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 – V	COURSE CODE : PHY-601 C
PAPER TITLE : ELECTIVE PAPER –VII-A: ANALOG AND DIGITAL ELECTRONICS	

Duration : 3Hours Maximum marks : 75 Pass marks : 30 marks

Model paper –VII(A) Elective (Electronics) **Semester -VI**

Elective Paper –VII-(A): Analog and Digital Electronics

SECTION-A

Time:3hr **Max.marks:75M**

Answer any five of the following questions: 5x5=25M

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 3 hrs.

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 (2018 – 19)

SEMISTER-VI Course Code: PHY -602C(1) 4 hrs/week

CLUSTER ELECTIVES VIII-A

PAPER-VIII-A-1: INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER

UNIT- I (10hours)

MICROPROCESSOR:

Organization of microprocessor based system, 8085 microprocessor, its pin diagram and Architecture, Concept of data bus, and address bus, 8085 programming instruction classification.

UNIT-II: (10hours)

8051 Architecture:

Introduction to microcontroller- comparison of microcontroller and microprocessor- block diagram-I/o pins, ports and circuits- external memory-counter and timers- serial I/O interrupts.

UNIT-III (15hours)

8051 Instruction set:

Classification of instruction set addressing modes-logical operation: byte level-bit level rotate and swap operation.

Arithmetic operation: Instructions affecting flags – incrementing and decrementing -addition –subtraction-multiplication and division- example programs

UNIT-IV: (13hours)

Jump and call instruction:

Introduction- the jump and call program rang-jump: bit – byte unconditional: calls and subroutine-interrupts and returns- example programs. Time delay generation and calculation, timer/counter programming, generating a rectangular waveform.

UNIT-V: (12hours)

Interfacing:

Interfacing of keyboard, 7-Segment display, stepper motor and ADC(0844) Interfacing & DAC(0808/MC 1408) Interfacing.

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: 75 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 (15 Marks)	**T**	**1**
Unit-3 (30Marks)	**T+T**	**2**
Unit-4 (20 Marks)	**T+T**	**1**
Unit-5 (30 Marks)	**T+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 **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 – VI	**COURSE CODE : PHY-602 C(1)**
PAPER TITLE : CLUSTER ELECTIVES VIII-A	
PAPER-VIII-A-1: INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER	

Duration : 3Hours Maximum marks : 75 Pass marks : 30 marks

Model Paper- Sem VI

III B.Sc - PHYSICS (cluster) – VI SEMESTER

INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLERS

PHY- 602 CE **Max marks : 75**

SECTION-A

Answer any FIVE of the following questions : **(5x5=25M)**

1) Draw the pin diagram of 8085 MP.
2) Write the short notes on timer TO.
3) Write the short notes on timer 0 in mode 1(16 – bit timer).
4) Discuss # data 16.
5) Define the term Flag.
6) What do you mean by instructions affecting flags?
7) Write a short note on machine cycle and delay calculation.

8) Explain the concept control of stepper motor.

SECTION – B

Answer any FIVE of the following questions : (5x10 = 50 M)

9) Draw the block diagram of 8051 MC and explain each block.
10) Draw the 8051 MC pin diagram and explain about different pins.
11) Describe how you interface the keyboard to 8051 microcontroller along with suitable assembly language programs.
12) What are the different types of instruction sets of 8085 MP?
13) Draw the pin diagram of 8051.
14) Discuss input/output ports (I/O ports) of 8051.
15) Discuss the types of instructions.
16) Write ALP to generate rectangular wave form.

PAPER-VIII-A-1: Practical: INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER 3Hrs.

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 parts 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.

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III B.Sc. 6th Semester (2018-2019)

Semester – VI **COURSE CODE : PHY-602 C(2)**

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 – Inputing 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 functios. Recursion. ANSI C functions – Function declaration . scope and life of variables in functions.

UNIT – IV (12 hrs) **(Algarithms and flow charts only)**

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) **(Algarithms and flow charts only)**

9. Interpolations : Concept pf linear interpolation – Finite differences – Newton's and Lagrange's interpolation formulae – principles and Algorithms.
10. 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: 75 marks Duration: 3Hours

Weightage for the question paper

Syllabus	Section-A (Short answer questions)	Section-B (Essay questions)
Unit-1 (30 Marks)	**T+T**	**2**
Unit-2 (30 Marks)	**T+T**	**2**
Unit-3 (30Marks)	**T+T**	**2**
Unit-4 (15 Marks)	**T**	**1**
Unit-5 (15 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 **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 – VI	COURSE CODE : PHY-602 C(2)
PAPER TITLE : Cluster Elective Paper – **VIII- A-2** : Computational Methods and Programming	

Duration : 3Hours Maximum marks : 75 Pass marks : 30 marks

Model Paper :Sem VI

III B.Sc - PHYSICS (cluster) – VI Semester

COMPUTATIONAL METHODS AND PROGRAMMING

Paper Code : PHY 603 CE **Max.Marks : 75**

SECTION-A

Answer any FIVE of the following questions : **(5x5=25M)**

1) Write different data types in C with Examples.
2) Structure of C programme 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

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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III B.Sc. 6th Semester (2018-2019)

Semester- VI **COURSE CODE : PHY-602 C(3)**

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. Measurement of dc voltage: DC Voltmeter – Multi Range Voltmeter- Voltmeter sensitivity- Loading Effect- A.c voltmeter using rectifiers.

UNIT – II (10 HOURS)

3. **Analog Multimeter:** Multimeter as micro ammeter- as dc ammeter-as dc voltmeter-as ac voltmeter- as ohm meter-Multimeter operating instructions-General Specifications of a multimeter.

4. Electronic voltmeter : Advantage over conventional multimeter for voltage measurement with Electronic voltmeter. A.c, dc voltage measurements with TVM (FET) (block diagram only).

UNIT –III (14 HOURS)

5. 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.
   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)

Digital Multimeter : Block diagram and working of DMM, Digital frequency meter principle of Operation. Block diagram of digital frequency meter, working-Universal counter. Advantages of DMM over Analog Multimeter.

6. Digital instruments : Principle and working of digital instruments, characteristics of a digital meter, working principle of digital voltmeter.

UNIT – V (12 HOURS).

7. Signal Generators : Block diagram, working and specifications of low frequency signal generators, pulse generator, function generator – wave analysis: Definition of wave analyser- Types of Wave Analyser- Basic Wave analyser- Harmonic distortion analyser(Distortion factor meter).

8. 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: 75 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+T**	**1**
Unit-3 (30Marks)	**T+T**	**2**
Unit-4 (15 Marks)	**T**	**1**
Unit-5 (30 Marks)	**T+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 **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 – VI	COURSE CODE : PHY-602 C(3)

PAPER TITLE : Cluster Elective Paper – **VIII-A-3**: **Electronic Instrumentation**

Duration : 3Hours Maximum marks : 75 Pass marks : 30 marks

Model Paper :Sem VI

III B.Sc - PHYSICS (CLUSTER) – VI Semester

ELECTRONIC INSTRUMENTATION

Paper Code : PHY 604 CE **Max.Marks:75**

SECTION-A

Answer any FIVE OF THE FOLLOWING questions : (**5x5=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.

Minimum of 6 experiments to be done and recorded.

1. Study the loading effect of a multimeter by measuring voltage across a low and high resistance.
2. Study the limitations of a multimeter for measuring high frequency voltage and currents.
3. Measurement of voltage , frequency, time period and phase angle using CRO.
4. Measurement of time period and frequency using universal counter/ frequency counter.
5. Measurement of rise, fall and delay times using a CRO.
6. Measurement of distortion of a RF signal generator using distortion factor meter.
7. Measurement of R with Wheat stone bridge.

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

DEPARTMENT OF POLITICAL SCIENCE

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

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 11-04-2018 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)..... **(Prof.B.Meena Rao)**	**University Nominee**	Dept of Politics Andhra University, Visakhapatnam
3)..... **(Sri K.V. Vijaya Babu)**	**Academic Council Nominee**	Head ,Department of Political Science Andhra Loyola College Vijayawada
4)..... **(Dr.B.Rajendra Prasad)**	**Academic Council Nominee**	Department of Political Science Maris Stella College, Vijayawada

AGENDA

1. To review and recommend changes to the syllabi, model paper and guidelines in the 1st, 2nd, 3rd, 4th, 5th and 6th semesters B.A ;
2. To discuss and recommend the pattern of assessment i.e internal and external to be followed from the academic year 2018-19;
3. To discuss and recommend the Introducing of student group Project Work in Sixth Semester;
4. To recommend the guidelines to be followed by the Question Paper Setters in Political Science for the all the semester-end exams;
5. To recommend the teaching and the evaluation methods to be followed under the Autonomous System;
6. To suggest innovative methods of teaching; and
7. To propose the panel of Question Paper Setters and Examiners.

RESOLUTIONS : The following resolutions were passed unanimously :

1) Resolved to delete the topic "relationship between Liberty and Equality" in the IV unit and also to delete the topic "relationship between Rights and Duties" in the Unit V of Paper I entitled Basic Concepts of Political Science of First Semester.

2) To continue the existing syllabi of all other papers without any change for the academic year 2018-19;

3) To adopt 30 marks for internal assessment and 70 marks for external assessment from the academic year 2018-19 batch onwards

4) To follow the new model question paper from the academic year 2018-19 for the I year BA Students;

5) To introduce student Group Project Work in Sixth Semester instead of cluster paper III as per the guidelines of the university

6) 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 II & III year students is to be done by the following procedure:

a) Internal Assessment Examinations:

i) Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment;

ii) Out of these 25 marks, 15 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 BA Admitted from 2018-19 Batch

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 /mini project / 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 75 for the present II & III year students and 70 for I BA admitted from 2018-19 batch ,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 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), (2018-2019) VUYYURU

SEMESTER – I	COURSE CODE:POL – 101C
PAPER TITLE : BASIC CONCEPTS OF POLITICAL SCIENCE	

UNIT- I

Introduction:

Nature, Definitions, and Scope of Political Science

Significance of Political Science

UNIT – II

State –Theories of Origin Of The State:

State – Essential Elements of State.

The Divine Origin Theory ;

The Social Contract Theory of Hobbes, Locke and Rousseau;

The Historical or Evolutionary theory.

UNIT – III

Sovereignty:

Meaning and definitions of Sovereignty;

Characteristics and Kinds of sovereignty;

Austin's theory of sovereignty;

The pluralist Theory of Sovereignty

UNIT – IV

Law- Liberty- Equality:

Definition, meaning, features and kinds of law; Sources of law.

Definition, meaning and importance of liberty ; Kinds and Safeguards of liberty.

Definition, meaning and importance of equality; Kinds of equality

UNIT – V

Rights And Duties:

Definition, meaning and features of Rights.

Classification of Rights.

Women's Rights

Safeguards of Rights

Duties of citizen.

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A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS),VUYYURU – 521 165

(2018-2019)

SEMESTER – I	COURSE CODE:POL-101C
PAPER TITLE : **BASIC CONCEPTS OF POLITICAL SCIENCE**	

Duration : 3Hours Maximum marks : 70 Pass marks : 30

SECTION – A

Answer any TWO of the following question (2x5=10Marks)

1. ~~Nationality~~ Government
2. Pluralism
3. Safeguards of liberty
4. Fundamental duties

SECTION – B

Anwer any FOUR of the following questions (4x15=60 Marks)

9. Exmine the Scope and importance of Political Science
10. Explain the theory of Divine Rights
11. Write an essay on social contract theory
12. Examine nature characteristics of sovereignty
13. Explain the meaning and sources of Law
14 Bring out the relationship between liberty and equality
15. Meaning and features of rights
16 What are the characteristics of a modern state

The Guidelines to be followed by the question paper setters in political science

I st Semester - End Exams (2018-2019)

PAPER TITLE : **BASIC CONCEPTS OF POLITICAL SCIENCE**

Paper- I Semester – I Maximum marks : 70 Duration : 3Hours

Weightage for the question paper

syllabus	Section-A (Short answer questions)	Section-B (essay questions)
Unit-1 (15Marks)		1
Unit-2 (35Marks)	1	3
Unit-3 (20Marks)	1	1
Unit-4 (35Marks)	1	2
Unit-5 (15Marks)	1	1

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

   Note: In view of vast syllabus in unit-ii more weightage is given.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2018-2019) VUYYURU

SEMESTER – II	COURSE CODE: POL – 201C
PAPER TITLE : CONCEPTS THEORIES AND INSTITUTIONS	

No. of Hours per week: 6 Max. Marks: 100

No. of Credits: 4 External: 70 Internal: 30

Unit - I: Democracy

Definition and Meaning of Democracy, forms of Democracy – Conditions necessary for the success of democracy, Merits and demerits of democracy

Unit - II: Ideology

A) Individualism, Anarchism Fascism, Marxism and Gandhism
B) Theory of Separation of Powers: Montesquieu's theory of separation of powers.

Unit - III: Constitutionalism

Legislation Unicameralism and Bi-Cameralism- Powers and Functions of Legislature- Role of opposition parties in the legislature, Committee System-Stages of making the Law – Reasons for the decline of the importance of the legislature.

Unit - IV: Executive

A) Meaning and Importance of Executive-types of Executive- Functions of Executive- Delegated Legislations features of Parliamentary- Executive Merits and demerits - Features of presidential executive merits and demerits.
B) Judiciary meaning and importance of Judiciary- Structure of Judiciary Powers and Functions of Judiciary.

Unit-V: Popular Control

Welfare State and Human Rights - Meaning and importance of popular control, methods of popular control - Meaning and definition of welfare state - Functions of welfare state reasons for the growing importance to the welfare state - United Nations Declaration of Human Rights.

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
6. Political Theory - Aseervadam

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 301C	2018-2019	II BA

SEMESTER – III SYLLABUS PAPER III

TITLE: INDIAN CONSTITUTION

Unit – I: Introduction

- Constituent Assembly of India and its composition
- Sources of Indian Constitution
- Salient Features of the Constitution of India

Unit-II: Philosophy of Indian Constitution

- Preamble
- Fundamental Rights
- Directive Principles of State Policy
- Fundamental Duties

Unit-III: Union Government

- Union Executive – President -, Election, Impeachment ,Powers ;

  Prime Minister: Powers and Role

- Indian Parliament: Rajya Sabha, Vice- President ; Lok Sabha, Speaker
- Parliamentary Committees: Public Accounts Committee, Estimates Committee and Committee on Public Sector Undertakings.

Unit-IV: Federalism in India

- Unitary and Federal Features in Indian Constitution
- Legislative, Administrative and Financial Relations – Constitutional provisions
- A Study of Sarkaria and Venkatachalaiah Commissions..

Unit-V: Judiciary

- Supreme Court of India: Composition, Powers and Functions
- Public Interest litigation, Judicial Review, Judicial Activism,
- Judiciary Vs Parliament.

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Text Books:

1. Indian Government and Politics, Abbas H Kuma, R & Alam M.A. 2011
2. Indian Politics contemporary issues and Concerns New Delhi. PHI
3. Oxford companion to Indian politics by Jayal N.G. & Mehatha P.B. (Eds.), Oxford University Press

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	2018-2019	II BA

SEMESTER – IV **SYLLABUS** **PAPER - IV**

INDIAN POLITICAL PROCESS

UNIT – I: **Introduction to Indian Party System :**

a) Definition and role of Political Parties

b) Characteristics of Indian Party System

c) Classification of Indian Political Parties

UNIT – II: **Elections in India :**

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: **Political Parties in India:**

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 - causes for the 1964 split;

d) Akali Dal, DMK and AIADMK, Telugu Desam Party, T.R.S

Unit-IV: **Voting Behavior :**

a) Voting Behaviour and its determinants.

b) Caste in politics.

c) Class in politics.

d) Gender in politics.

e) Religion in politics

UNIT – V: **Trends in political System**

a) Coalition Politics in India - Causes and limitation

b) National Integration : Meaning , importance and threats .

c) Social movements : Women and Environmental Movements.

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TEXT BOOK:

Indian Government and Politics - Telugu Academy

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
5. Introduction for Constitution of India - D.D.Basu
6. Indian Government and Politics - D.C.Gupta

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2018-2019) VUYYURU

SEMESTER – V	COURSE CODE: POL – 501C
PAPER TITLE :	PAPER-V (CORE): INDIAN POLITICAL THOUGHT

External: 75 Internal: 25

Unit -I:

1. Manu: Social laws, danda neethi

2. Kautilya: kingship, Mandala Theory, Saptanga Theory

UNIT – II

1. Gandhi:
   a. Non-violence, Satyagraha.
   b. Theory of Trusteeship.

2. Joythi Rao Pule: - Social reform

UNIT – III

Nehru:

a. a. Democratic Socialism.
b. B.Non-Alignment

Ambedkar:

a. Views on Indian Society.
b. Social Movements.

UNIT – IV

M.N. Roy:

-Radical Humanism

Jaya Prakash Narayan:

-Total Revolution.
- 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.

A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE (AUTONOMOUS), (2018-2019) 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 601GE	2018-2019	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. Mandal Parishad
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 spheres

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. Baviskar B.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 602CE	2018-2019	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. New York, OUP, 2008.
2. Baylis, J and Smith, S (Eds), The Globalization of World Politics; An Introduction to International Relations, Oxford, OUP,2011
3. Aneek Chatterjee, International Relations Today; Concepts and Applications, New Delhi. Pearson Education, 2008.
4. E.H. Carr, International relations between the two world Wars, Lodon, Palgrave Macmillan. 2004.

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 603CE	2018-2019	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

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

DEPARTMENT OF TELUGU

2018-2019

BOARD OF STUDIES

Minutes of Meeting

11-04-2018

A.G & S.G.Siddartha Degree College of Arts & Science, (AUTONOMOUS)
VUYYURU – 521 165, Krishna District.

(An Autonomous College in the jurisdiction of Krishna University, Machilipatnam, A.P.India)

Re - Accredited at 'A' NACC

తెలుగు విభాగం పాఠ్య నిర్ణాయక మండలి (బోర్డు ఆఫ్ స్టడీస్) సమావేశం – 7.

తేది. 11.04.2018 ఉదయం 10.30 ని II లకు అడుసుమిల్లి గోపాలకృష్ణయ్య చెఱకు రైతుల సిద్ధార్ధ డిగ్రీ కళాశాల, ఉయ్యూరు. తెలుగు శాఖలో 2018– 2019 విద్యా సంవత్సరానికి తెలుగు శాఖాదిపతి శ్రీ జి.శ్రీనివాస్ అధ్యక్షతన జరిగినది.

తెలుగు పాఠ్యాంశ నిర్ణాయక మండలి సమావేశానికి చర్చనీయాంశాలు.

1. 2018– 2019 విద్యా సంవత్సరంలో ప్రధమ, ద్వితీయ బి.ఎ., బి.కాం.. బి.యస్ సి., తరగతులకు మొదటి, రెండవ,మూడవ, నాల్గవ సెమిస్టర్లకు సంబందించిన పాఠ్యాంశాల నిర్ణయం గురించి.
2. 2018 – 2019 విద్యా సంవత్సరంలో ప్రారంభం కానున్న బి.బి.యం., బి.యస్.సి (జడ్.పి.సి) కోర్సుకు సంబంధించిన పాఠ్యాంశాల నిర్ణయం గురించి.
3. తెలుగు శాఖ ఆధ్వర్యంలో జర్నలిజం సర్టిఫికెట్ కోర్సు నిర్వహించడం గురించి.
4. అధ్యక్షుని అనుమతితో ఇతర అంశాలు ఏవైనా.

తీర్మానాలు:

తేది.11-04-2018 ఉదయం 10.30 ని II లకు అడుసుమిల్లి గోపాలకృష్ణయ్య చెఱకు రైతుల సిద్ధార్ధ డిగ్రీ కళాశాల, ఉయ్యూరులో 2018 -2019 విద్యా సంవత్సరానికి రెండవ బాషగా తెలుగు పాఠ్యాంశాలు నిర్ణయించిన తరువాత తెలుగు పాఠ్య నిర్ణాయక మండలి (బోర్డు ఆఫ్ స్టడీస్) సభ్యులు ఈ క్రింది తీర్మానాలను ఏకగ్రీవంగా ఆమోదించడమైనది.

1. 2018 -2019 విద్యా సంవత్సరం ప్రధమ బి.ఎ., బి.కాం., బి.యస్ సి., తరగతులకు మొదటి, రెండవ సెమిస్టర్లకు సంబంధించిన పాఠ్యాంశాలలో మార్పులేదని తీర్మానించడమైనది.
2. 2018 – 2019 విద్యా సంవత్సరం ప్రధమ బి.బి.యం., బి.యస్.సి (జడ్.పి.సి) మొదటి, రెండవ సెమిస్టర్లకు సంబంధించిన సిలబస్ ను ప్రధమ బి.ఎ., బి.కాం., బి.యస్.సి తరగతులలో ఉన్న సిలబస్ నే ఉంచాలని తీర్మానించడమైనది.
3. 2018 -2019 విద్యా సంవత్సరానికి ద్వితీయ బి.ఎ., బి.కాం., బి.యస్.సి.,తరగతులకు మూడవ సెమిస్టర్ కు సంబంధించిన పాఠ్యాంశాలలో, నమూనా ప్రశ్న పత్రంలో మార్పు లేదని తీర్మానించడమైనది.
4. 2018-2019 విద్యా సంవత్సరం ద్వితీయ బి.ఎ., బి.కాం., బి.యస్.సి., తరగతులకు నాల్గవ సెమిస్టర్ లో ఉన్న నాయకత్వ విద్యకు సంబంధించిన పాఠ్యాంశాలలో, నమూనా ప్రశ్న పత్రంలో మార్పులేదని తీర్మానించడమైనది.
5. 2018 -2019 విద్యా సంవత్సరం ప్రధమ బి.ఎ., బి.కాం.,బి.బి.యం., బి.యస్.సి .,ప్రశ్నపత్రం ఎక్స్ టర్నల్ 70 మార్కులకు ఇంటర్నల్ 30 మార్కులకు ఇవ్వాలని తీర్మానించడమైనది.
6. 2018 – 2019 విద్యా సంవత్సరం ప్రధమ, బి.ఎ, బికాం., బి.బి.యం., బి.యస్ సి. విద్యార్థులకు కనీస పాస్ మార్కులు లేవని తీర్మానించడమైనది.
7. తెలుగు శాఖ ఆధ్వర్యంలో జర్నలిజం సర్టిఫికెట్ కోర్సు నిర్వహించాలని తీర్మానించడమైనది.

హాజరైన సభ్యులు :

1. శ్రీ జి.శ్రీనివాస్

   తెలుగు శాఖాధిపతి, పార్శ్య నిర్ణాయక మండలి అధ్యక్షులు.

2 శ్రీమతి ఎమ్.ఎల్.ఎస్.కుమారి.

   తెలుగు అధ్యాపకురాలు.

3 డా ॥ జి. సాంబశివరావు

   తెలుగు రీడర్, ఆంధ్ర లొయోల కళాశాల, విజయవాడ.

   (కృష్ణా విశ్వ విద్యాలయం నామిని)

4 డా ॥ కె. శ్రీనివాసరావు

   తెలుగు శాఖాధిపతి, వి.కె.ఆర్, కళాశాల, గన్నవరం.

   విషయ నిపుణులు (Subject Expert).

5 డా ॥ ఎ. కేదారి

   తెలుగు అధ్యాపకులు, టి.యస్.ఆర్ & వి.ఆర్.ఆర్ ప్రభుత్వ డిగ్రీ కళాశాల, పామర్రు.

   విషయ నిపుణులు (Subject Expert).

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I SEMESTER – SYLLABUS

ప్రాచీన కవిత్వం, ఆధునిక కవిత్వం, కథానికలు, వ్యాకరణం

I. ప్రాచీన కవిత్వం

1. గంగా శంతనుల కథ – నన్నయ

(ఆంధ్ర మహాభారతం – ఆదిపర్వం – నాల్గవ ఆశ్వాసం, 121 – 165)

ప్రతి పదార్థాలకు ఇవ్వదగిన పద్యాలు:

1. గంగ నిజాంగ దీప్తి లెసగం---------- గరంబు లీలతోన్.
2. కని వనకన్యయో ---------- చూచె ప్రీతితోన్.
3. అతుల తపంబునన్ వరుణు ---------- మహీధరకందరంబునన్.
4. తన కాజ్ఞావశవర్తులై ---------- రాజధర్మస్థితిన్.

2. ద్రౌపది పరిదేవనం – తిక్కన

(ఆంధ్ర మహాభారతం – ఉద్యోగపర్వం- తృతీయ ఆశ్వాసం, (100 -125)

ప్రతి పదార్థాలకు ఇవ్వదగిన పద్యాలు:

1. ఓట యొకింత యేనియు ----------నుండ నమ్యతా.
2. ఆఱడి బోకయున్ ----------వివేకముల్ గల్గనేర్చునే.
3. వరమున బుట్టితిన్ ---------- నెక్కినదాన నెంతయున్.
4. ద్రోవది బందురంబయిన ---------- యార్తయై.

II. ఆధునిక కవిత్వం:

1. కన్యక - గురజాడ వేంకట అప్పారావు
2. దేశ చరిత్రలు – శ్రీశ్రీ

III. కథానికలు :

1. చింతలతోపు -- పాపినేని శివశంకర్
2. సావు కూడు – బండి నారాయణస్వామి

IV. వ్యాకరణం:

1. సంధులు

తెలుగు సంధులు (అకార, ఇకార, త్రిక, గసడదవాదేశ, రుగాగమ, టుగాగమ, ఆమ్రేడిత సంధులు)

సంస్కృత సంధులు (సవర్ణదీర్ఘ, గుణ, యణా, వృద్ధి సంధులు)

2. సమాసాలు

(తత్పురుష, కర్మధారయ, బహువ్రీహి, ద్వంద్వ, ద్విగు సమాసాలు)

3. అక్షర దోషాలు.

సంప్రదించవలసిన పుస్తకం - సాహితి నందనం

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I SEMESTER - MODEL PAER

Time : 3 Hours

Marks : 70.

ప్రాచీన కవిత్వం , ఆధునిక కవిత్వం, కథానికలు, వ్యాకరణం

పార్టు – ఎ

1. ఈ క్రింది వానిలో **ఒక పద్యానికి** సందర్భ, సహిత, ప్రతి పదార్థ, తాత్పర్యాలను రాయండి. 1 X 8 =8 మార్కులు

ఎ. కనివినకన్యయో దనుజ కన్యకయో భుజగేంద్ర కన్యయో

యనిమిష కన్యయో యిది వియచ్చరకన్యయో యపూర్వమీ

వనమున కిట్టు లేకతమ వచ్చునె మానవ కన్య యంచు న

య్య నముడు దాని జిత్తమున నాదట వేవక ప్రీతితోన్

బి. వరమున బుట్టితిన్ భరత వంశము బొచ్చితి నందు బాండు భూ

వరునకు గోడలైతి జనవంద్యుల బొందితి నీతి విక్రమ

స్థిరులగు పుత్రులంబడసితిన్ సహజన్ముల ప్రాపు గాంచితిన్

సరసిజనాభ యిన్నిట బ్రశస్తికి నెక్కిన దాన నెంతయున

2. క్రింది వానిలో **నాల్గింటికి** సందర్భసహిత వ్యాఖ్యలు రాయండి. 4 X 3=12 మార్కులు

ఎ. నీతోడి సంగతి నాకు నింతియ

బి.ఇష్టమున పరిగ్రహింపు నన్ను

సి. తలపవలయు నచ్యుత వీనిన్

డి. కులాంగన నిట్లొనర్తురే?

ఇ. దేవకార్యం తీర్చి వచ్చెద

ఎఫ్. నిలిచెను కీర్తులపకీర్తుల్

జి. ఏదేశ చరిత్ర చూచినా ఏమున్నది గర్వకారణం

హెచ్. ఇంకానా? ఇక పై చెల్లవు

పార్టు – బి

1. గంగా శంతనుల కథను వివరించండి. 10 మార్కులు

(లేదా)

ద్రౌపది శ్రీకృష్ణునితో పలికిన పలుకులను వివరించండి.

2. 'కన్యక' వృత్తాంతం గురించి రాయండి. 10 మార్కులు

(లేదా)

శ్రీశ్రీ 'దేశచరిత్రలు' లోని శ్రామిక జన జీవిత చిత్రణని వివరించండి.

3. 'చింతలతోపు' కథలోని ఇతివృత్తాన్ని వివరించండి. 10 మార్కులు

(లేదా)

'సావుకూడు' కథను వివరించండి

4. ఈ క్రింది వానిలో **మూడింటిని** విడదీసి, సంధి పేరు, సూత్రాలను రాయండి. 3 X 3 = 9 మార్కులు

ఎ. లతాంగి

బి. ప్రత్యక్షం

సి. దేవర్షి

డి. తపముసేయు

ఇ. అవ్వసువులు

ఎఫ్. ఏమున్నది

5. ఈ క్రింది వానిలో **నాల్గింటికి** విగ్రహ వాక్యాలు రాసి, సమాసాల పేర్లు రాయండి. 4 X 2 = 8 మార్కులు

ఎ. బ్రహ్మసభ

బి. దివ్యాంగన

సి. త్రిభువనములు

డి. గంగాశంతనులు

ఇ. గంగానది

ఎఫ్. సరసిజనాభుడు

జి.అనుచితము

హెచ్. హోమధేనువు

6. ఈ క్రింది వానిలో **మూడు** పదాలను సరిదిద్ది రాయండి. 3 X 1 = 3 మార్కులు

ఎ. సంతనుడు

బి. శ్రీనివాశుడు

సి. ద్రుతరాష్ట్రుడు

డి. రాయభారము

ఇ. ఆకాసం

ఎఫ్. రుషి

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Guidelines to paper Setters

పార్టు – ఎ

1 వ ప్రశ్న: సందర్భ, సహిత, ప్రతిపదార్థ తాత్పర్యాలు

ప్రాచీన కవిత్వంలోని 'గంగా శంతనుల కథ' మరియు 'ద్రౌపది పరిదేవనం' లోని ఈ క్రింది పద్యాల నుండి ఒక్కొక్కటి చొప్పున మొత్తం 2 ఇవ్వవలెను.

పాఠం పేరు - గంగా శంతనుల కథ

1. గంగ నిజాంగ దీప్తి లసగం------------------------గరంబు లీలతోన.
2. కని వనకన్యయో------------------------------చూచె ప్రీతితోన.
3. అతుల తపంబునన్ వరుణు----------------------మహోదర కందరంబునన్.
4. తన కార్యాపకవర్తుల్లై---------------------------రాజధ్వజధర్మస్థితిన.

పాఠం పేరు - ద్రౌపది పరిదేవనం

1. ఓట యొకింత యెనియు ------------------నుండ నచ్చురా.
2. అంచి లోకయున్ --------------------------వివేకము గల్గనర్పునే.
3. వరమున బుట్టితిన్ -------------------------నెక్కిన దాన నెంతయున్
4. ద్రౌపది బంధురంబయిన------------------- యార్తయై.

2 వ ప్రశ్న: సందర్భ, సహిత, వ్యాఖ్యలు 'గంగా శంతనుల కథ', 'ద్రౌపది పరిదేవనం', 'కన్యక', 'దేశచరిత్రలు' పాఠాలలోని ప్రతి దాని నుండి 2 చొప్పున మొత్తం 8 ఇవ్వవలెను.

పార్టు – బి

సూచన :- 3,4,5 వ ప్రశ్నలలో 1 ప్రశ్న కథ గురించి, మరొక ప్రశ్న కవి, కవితా వైభవం గురించి ఇవ్వవచ్చు. కాని 2 ప్రశ్నలు కవి, కవితా వైభవం గురించి ఇవ్వకూడదు.

3 వ ప్రశ్న: వ్యాస రూప సమాధాన ప్రశ్న:

ప్రాచీన కవిత్వంలో 'గంగా శంతనుల కథ' నుండి 1 'ద్రౌపది పరిదేవనం' నుండి 1 మొత్తం 2 ఇవ్వవలెను.

4 వ ప్రశ్న: వ్యాసరూప సమాధాన ప్రశ్న: ఆధునిక కవిత్వంలో 'కన్యక' నుండి 1 'దేశచరిత్రలు' నుండి 1 మొత్తం 2 ఇవ్వవలెను.

5 వ ప్రశ్న: వ్యాసరూప సమాధాన ప్రశ్న: కథానికలలో 'చింతలతోపు' నుండి 1 'సావుకూడు' నుండి 1 మొత్తం 2 ఇవ్వవలెను.

6 వ ప్రశ్న: **సంధులు** : పద్యభాగం నుండి తెలుగు సంధులు 3, సంస్కృత సంధులు 3 మొత్తం 6 ఇవ్వవలెను.

7 వ ప్రశ్న: సమాసాలు : పద్యభాగం నుండి 8 సమాస పదాలు ఇవ్వవలెను.

8 వ ప్రశ్న: **అక్షరదోషాలు** : ప్రతి పదంలోనూ దోషం ఉండే విధంగా 6 పదాలు ఇవ్వవలెను.

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II SEMESTER – SYLLABUS

ప్రాచీన కవిత్వం, ఆధునిక కవిత్వం, కధానికలు, ఉపవాచకం (నవల), నీతి పద్యాలు.

I. ప్రాచీన కవిత్వం:

1. **సాయుజ్యము – ధూర్జటి** - శ్రీకాళహస్తి మహత్మ్యము 2వ ఆశ్వాసం (109 – 139)
   త్రేతాంతంబుననొక్క.....నుండి పన్నగంబు వరకు.

ప్రతిపదార్థాలకు ఇవ్వదగిన పద్యాలు:

1. త్రేతాంతంబున ..... మచ్చోటికిన్.
2. డగ్గఱి, "ఎవ్వడో..... విషణ్ణ చిత్తుడై.
3. అంతటఁ గొంతసేపునకు..... బెట్టఁ జూతురే?".
4. "ఎక్కడి దుర్మదుండో?..... గూడె దైవమున్.

2. **సుభద్రా పరిణయం** - చేమకూర వేంకట కవి - విజయవిలాసం -3వ ఆశ్వాసం(పద్యాలు 93-139)
   "తనయుని పెండ్లికేగ వలె ధాత్రికి" నుండి "దేరెక్కి దంపతులరుగ" వరకు.

ప్రతి పదార్థాలకు ఇవ్వదగిన పద్యాలు:

1. కలరొకొ యెవ్వరైన .....మురారి చెంగటన్.
2. పొలయలు కందు వేడుకొను..... మంగళసూత్రమయ్యెడన్
3. ప్రణయంబొప్పగ గృష్ణుని గని ..... బల్కగన్.
4. చెల్లెల లెస్సలా పెరటి చెట్టుగ ..... నీకు నెంతయున్

II. ఆధునిక కవిత్వం:

1. ముసాఫరులు -- జాషువా
2. మేఘదూతం -- పుట్టపర్తి నారాయణాచార్యులు

III. కధానికలు :

1. ఆకలి - కొలకలూరి ఇనాక్
2. నమ్ముకున్న నేల - కేతు విశ్వనాధ రెడ్డి

IV. ఉపవాచకం (నవల):

డాII వి. ఆర్. రాసాని - బతుకాట

v. నీతి పద్యాలు:

1. **బద్దెన కవి రాసిన సుమతీ శతకం నుండి**

1. ఉపకారికి నుపకారము .....సుమతీ.
2. తన కోపమే తన శత్రువు.....సుమతీ.
3. బలవంతుడ నాకేమని ..... సుమతీ.
4. వినదగు నెవ్వరు సెప్పిన ..... సుమతీ.
5. పుత్రోత్సాహము తండ్రికి ..... సుమతీ.

2. **మారవి కవి రాసిన భాస్కర శతకం నుండి**

1. చదువది యెంత కలిగిన ..... భాస్కరా !
2. అతిగుణహీనలోభికి ..... భాస్కరా !
3. ఊరక సజ్జనుండొదిగి..... భాస్కరా !
4. బంధుర సద్గుణాఢ్య..... భాస్కరా !
5. సిరిగల వానికెయ్యెడల ..... భాస్కరా !

సంప్రదించవలసిన పుస్తకాలు : 1 డిగ్రీ ప్రధమ సంవత్సరం రెండవ సెమిస్టర్ పాఠ్య పుస్తకం - సాహితీ కౌముది.

2 డిగ్రీ ప్రధమ సంవత్సరం – సాహితీ లత (పాతది)

3 బతుకాట – డా11వి.ఆర్.రాసాని.

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II SEMESTER – MODEL PAPER

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

ప్రాచీన కవిత్వం, ఆధునిక కవిత్వం, కథానికలు, ఉపవాచకం (నవల), నీతి పద్యాలు

పార్టు – ఎ

1. ఈ క్రింది వానిలో **ఒక పద్యానికి** సందర్భ, సహిత, ప్రతిపదార్థ, తాత్పర్యాలను రాయండి. 1 x 8 = 8 మార్కులు.

ఎ. డగ్గఱి, "ఎవ్వఁడో కటకటా! శివలింగముమీఁది రత్నముల్
గగ్గులకాటఁగల్పి, ములుకంపలు తీవలు వెట్టి, నేఁడు నా
కెగ్గొనరించి పోయె, నిఁక నేమననేర్తు, మదీయభాగ్య మి
ట్లగ్గిఁ బడంగఁ జేసిన మదాంధుని?" నంచు విషణ్ణ చిత్తుఁడై.

బి. కలరొకొ యెవ్వరైన నవు గాదని యడ్డము వల్కువారలీ
యిల? మఱి దానెఱుంగనటు లెంతటి మాయలకాఁడు కన్యకా
తిలకము ధారవోయ వసుదేవునిఁ గట్టడసేసి, వేయి క
న్నులు గల వేలుపుం బలెఁ గనుంగొను చుండె మురారి చెంగటన్.

2. ఈ క్రింది వానిలో **నాల్గింటికి** సందర్భ, సహిత, వ్యాఖ్యలు రాయండి. 4 X 3 = 12 మార్కులు.

ఎ. ఱాలు కపర్ధికి బెట్ట జూతురె.

బి. రాత్రి శివరాత్రిగా జాగరమ్ము జేసె.

సి. ఒడలెల్ల గన్నులుగ జూసిరి

డి. పుట్టిల్లును జొచ్చినిల్లునయి వృద్ధినొసంగెడు నీకునెంతయన్.

ఇ. భస్మమైనారు నామ రూపంలు లేక

ఎఫ్. అనుగమింపవు నిన్ను దేహాంతరమున

జి. అతడు సామాన్యుడా ! ఆంధ్రజాతికి పొగరు

హెచ్. పుల్లరికి జరిగెనట పోరు

పార్టు – బి

3. సర్పము, ఏనుగు శివసాయుజ్యమునకు ఎట్లు అర్హత సాధించినవి ? 10 మార్కులు.

(లేదా)

'సుభద్రా పరిణయం'లో ఆచరించిన తెలుగు వారి సంస్కృతీ సాంప్రదాయాలను తెల్పండి.

4. 'ముసాఫరు' లలో భారతదేశంలోని మంచి చెడ్డలను జాషువా చెప్పిన విధానం తెలపండి. 10 మార్కులు.

(లేదా)

'మేఘదూతం' లో వర్ణింపబడిన ప్రసిద్ధ ప్రదేశాల గొప్పతనాన్ని తెల్పండి.

5.'ఆకలి' కథ సారాంశంను తెల్పండి. 10 మార్కులు.

(లేదా)

'నమ్ముకున్న నేల' లో రచయిత ఇచ్చిన సందేశం ఏమిటి ?

6.వెంకోజీ పాత్ర ప్రాధాన్యాన్ని తెల్పండి. 10 మార్కులు.

(లేదా)

'బతుకాట' నవలలోని సామాజిక పరిస్థితులను వివరించండి.

7.ఈ క్రింది వానిలో **రెండు పద్యాలను** పూరించండి. 2 X 5 = 10 మార్కులు.

ఎ. ఉపకారికి నుపకారము ..... సుమతీ !

బి. తన కోపమే తన శత్రువు..... సుమతీ !

సి. చదువది యెంత కల్గిన..... భాస్కరా !

డి. బంధుర సద్గుణాఢ్యు. ..... భాస్కరా !

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I year B.A, B.Com, B.sc.
Telugu II Semester – **Guidelines to paper setters**

పార్టు – ఎ

1వ ప్రశ్న : **సందర్భ, సహిత,ప్రతి పదార్థ, తాత్పర్యాలు** : ప్రాచీన కవిత్వంలోని సాయుజ్యము మరియు సుభద్రా పరిణయంలోని ఈ క్రింది పద్యాల నుండి ఒక్కొక్కటి చొప్పున మొత్తం 2 ఇవ్వవలెను.

సాయుజ్యము - ధూర్జటి

1. త్రేతాంతంబున నొక్క ..... మచ్చోటికిన్.
2. డగ్గటి, "ఎవ్వడో ..... విషణ్ణ చిత్తుఁడై.
3. అంతటఁ గొంతసేపునకు..... బెట్టఁ జూతురే?"
4. "ఎక్కడి దుర్మదుండో?..... గూడె దైవమున్

సుభద్రా పరిణయం - చేమకూర వేంకట కవి

1. కలరొకొ యెవ్వరైన ..... మురారి చెంగటన్.
2. పొలయలు కందు వేడికొను.....మంగళ సూత్రమయ్యెడన్.
3. ప్రణయంబొప్పగ గృష్ణుని గని ..... బల్కగన్.
4. చెల్లెల లెస్సలా పెరటి చెట్టుగ ..... నీకు నెంతయున్

2వ ప్రశ్న : సందర్భ, సహిత, వ్యాఖ్యలు : సాయుజ్యము నుండి 2, సుభద్రా పరిణయం నుండి 2, ముసాఫరులు నుండి 2, మేఘదూతం నుండి 2 మొత్తం 8 ఇవ్వవలెను.

పార్టు – బి

సూచన : 3,4వ ప్రశ్నలలో 1 ప్రశ్న కథ గురించి, మరొక ప్రశ్న కవి, కవితా వైభవం, కవితా లక్షణాలు గురించి ఇవ్వవచ్చు. కాని రెండు ప్రశ్నలు కవి, కవితా వైభవం, కవితా లక్షణాలు గురించి ఇవ్వకూడదు.

3వ ప్రశ్న : వ్యాసరూప సమాధాన ప్రశ్న: ప్రాచీన కవిత్వంలో 'సాయుజ్యం' నుండి 1 'సుభద్రా పరిణయం' నుండి 1 మొత్తం 2 ప్రశ్నలు ఇవ్వవలెను.

4వ ప్రశ్న : వ్యాసరూప సమాధాన ప్రశ్న: ఆధునిక కవిత్వంలో 'ముసాఫరులు' నుండి 1 'మేఘదూతం' నుండి 1 మొత్తం 2 ప్రశ్నలు ఇవ్వవలెను.

5వ ప్రశ్న : వ్యాస రూప సమాధాన ప్రశ్న: కథానికలలో ' ఆకలి' నుండి 1 'నమ్ముకున్న నేల' నుండి 1 మొత్తం 2 ప్రశ్నలు ఇవ్వవలెను.

6వ ప్రశ్న : వ్యాసరూప సమాధాన ప్రశ్న: బతకాట నవల నుండి ప్రధాన పాత్రలైన **వెంకోజీ, సిద్ధోజి, గుర్రప్ప** పాత్రల నుండి 1 ప్రశ్న, బతకాట నవల లోని **సామాజిక పరిస్థతులు, నవల నామౌచిత్యం** వంటి ప్రశ్నల నుండి 1 ప్రశ్న మొత్తం 2 ప్రశ్నలు ఇవ్వవలెను.

7వ ప్రశ్న : సిలబస్ లో ఇచ్చిన విధంగా బద్దెన కవి రాసిన **సుమతీ శతకం**లో ఈ క్రింద ఇచ్చిన 5 పద్యాలలో నుండి మాత్రమే 2 పద్యాలను ఇవ్వవలెను.

1. ఉపకారికి నుపకారము .....సుమతీ.
2. తన కోపమే తన శత్రువు.....సుమతీ.
3. బలవంతుడ నాకేమని ..... సుమతీ.
4. వినదగు నెవ్వరు సెప్పిన ..... సుమతీ.
5. పుత్రోత్సాహము తండ్రికి ..... సుమతీ.

సిలబస్ లో ఇచ్చిన విధంగా మారవి కవి రాసిన **భాస్కర శతకం**లో ఈ క్రింద ఇచ్చిన 5 పద్యాలలో నుండి మాత్రమే 2 పద్యాలను ఇవ్వవలెను.

1. చదువది యెంత కలిగిన ..... భాస్కరా !
2. అతిగుణహీనలోభికి ..... భాస్కరా !
3. ఊరక సజ్జనుండొదిగి..... భాస్కరా !
4. బంధుర సద్గుణాఢ్య..... భాస్కరా !
5. సిరిగల వాని కెయ్యెడల ..... భాస్కరా !

మొత్తం 4 పద్యాలను ఇవ్వవలెను.

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TELUGU 301 2018-19 **II DEGREE B.A., B.COM., B.SC.,**

No. of Hrs. : 4 **III SEMESTER – SYLLABUS** **Credits: 3**

I. ప్రాచీన కవిత్వం

1. వామనావతారం – పోతన - ఆంధ్రమహాభారతం – అష్టమస్కంధం (582-621) "కులమున్ రాజ్యము" నుండి "రవిబింబంబుపమింప"వరకు

(ప్రతి పదార్ధాలకు ఇవ్వదగిన పద్యాలు)

1. కారే రాజులు రాజ్యముల్ ---------- యిక్కాలమున్ భార్గవా !
2. నిరయంబైన నిబంధమైన ----------ధీవర్య! వే యేటికిన్.
3 . అమరారాతి కరాక్షతోజ్జిత ----------విన్యస్తమున్ హస్తమున్.
4. రవిబింబం బుపమింప ----------బ్రహ్మాండమున్ నిండుచోన్.

2. శాలివాహన విజయం – కొఱవి గోపరాజు సింహాసన ద్వాత్రింశిక – ప్రథమాశ్వాసం (115 -165) "సజ్జిత దాన ధర్మ " నుండి "ఇట్లు విక్రమార్కుడీల్గిన " వరకు.

(ప్రతి పదార్ధాలకు ఇవ్వదగిన పద్యాలు)

1. సజ్జిత దానధర్మ ----------రాజ్యము సేయుచుండగన్.
2. అర్కుని మూర్తి ----------బంపునావుడన్.
3. సత్పాత్ర ప్రతి పాదితార్థు---------నుల్కాదిలక్ష్యంబులై.
4. వరపుత్రుం డమరేంద్రవైరి-------- బీటు వాటిల్లదే.

II. ఆధునిక కవిత్వం

1. కుసుమ ధర్మన్న - హరిజన శతకం (1 -20) "శ్రీహరి సుత నీదు" నుండి "నీ కులంబు వారు"వరకు
2. డా II అందెశ్రీ – మనిషి – మాయమైపోతున్న డమ్మా నుండి – ఇనుపరెక్కల డెగ వరకు.

III. గద్యభాగం (వ్యాస సంపుటి)

1. ఆచార్య గుజ్జర్లమూడి కృపాచారి - తెలుగు భాష
2. ఆచార్య రాచపాళెం చంద్రశేఖర రెడ్డి - వ్యక్తిత్వ వికాసం

IV. ఛందస్సు

ఉత్పలమాల, చంపకమాల, శార్దూలం, మత్తేభం, కందం, తేటగీతి ఆటవెలది.

V. అలంకారాలు

అర్థాలంకారాలు:- ఉపమ, ఉత్ప్రేక్ష, రూపక, స్వభావోక్తి, అతిశయోక్తి, అర్థంతరన్యాస, శ్లేష.

శబ్దాలంకారాలు:- వృత్యనుప్రాస, అంత్యానుప్రాస, యమకం.

సంప్రదించవలసిన పుస్తకం: సాహితీ స్రవంతి (బి.ఎ., బి.కాం., బి.యస్.సి. రెండవ సంవత్సరం తెలుగు వాచకం)

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TELUGU-301 **2018-19** **II DEGREE B.A., B.COM., B.SC.,**

No. of Hrs. : 4 **III SEMESTER – MODEL PAPER** **Credits: 3**

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

పార్టు - ఎ

1. ఈక్రింది వానిలో ఒక పద్యానికి సందర్భ సహిత ప్రతిపదార్థ తాత్పర్యాలను రాయండి. **8 మార్కులు**

ఎ. కారే రాజులు రాజ్యముల్ గలుగవే గర్వోన్నతిన్ బొందరే
వారేరీ సిరి మూట గట్టుకొని పోవంబోలిరే భూమిపై
బే రైనం గలదే శిబిప్రముఖులం బ్రీతిన్ యశ:కాములై
యిరే కోర్కులు వారలన్ మఱచిరే యిక్కాలమున్ భార్గవా!

బి. సజ్జితదానధర్మ గుణచారువిచారుడు వైరిదార ద్యు
క్కజ్జలమార్జన ప్రథమకారణ చారుకృపాణపాణి వి
ద్వజ్జనబృందవంది జనతాజలజౌర్కుడు విక్రమార్కు డా
యుజ్జయినీపురంబున నయోన్నతి రాజ్యము సేయుచుండగన్.

2. ఈ క్రింది వానిలో నాల్గింటికి సందర్భ సహిత వ్యాఖ్యలు రాయండి. **4 x 3 = 12 మార్కులు**

ఎ. మాట దిరుగలేరు మానధనులు.

బి. మానధనులకు భద్రంబు మఱియు గలదే

సి. సాహసంబు సేయు సాహసాంక

డి. సర్వ కళల యందు బాణవు నీవండ్రు

ఇ. చీకు చింత లేక చిరజీవులైరయా

ఎఫ్. ధర్మ చింత చచ్చే ధనకాంక్ష హెచ్చె

జి. రాకాసి రూపాన రంబిల్లుతున్నాడు

హెచ్. జీవకారుణ్యమే జీవితం అంటాడు

పార్టు - బి

3. వామనావతార పరమార్థాన్ని వివరించండి. **10 మార్కులు**

(లేదా)

శాలివాహన విజయాన్ని సోదాహరణంగా వివరించండి.

4. కుసుమ ధర్మన్న వివరించిన హరిజనుల దీనస్థితిని రాయండి. **10 మార్కులు**

(లేదా)

మానవత్వం మర్చిపోతున్న మనిషి గూర్చి డా॥అందెశ్రీ ఆవేదన తెల్పండి.

5. తెలుగు బాష ప్రాచీనతను వివరించండి. 10 మార్కులు

(లేదా)

వ్యక్తిత్వ వికాసం విశిష్టతను వివరించండి.

6 .ఈ క్రింది వానిలో ఒక దానికి లక్షణాన్ని తెల్పి, ఉదాహరణతో సమన్వయించండి. 5మార్కులు

ఎ. ఉత్పలమాల. బి. తేటగీతి.

7. ఈ క్రింది పద్యపాదాలలో ఒక దానికి గణ విభజన చేసి, ఏ పద్య పాదమో తెల్పి, 5 మార్కులు
యతిప్రాసలను గుర్తించండి..

ఎ. బలిదైత్యేంద్ర కరద్వయోక్కతజల ప్రక్షాళన వ్యాప్తికిన్.

బి. మునిజన నియమాధారను జనితాసుర యువతినేత్ర జలకణధారన్.

8. ఈ క్రింది అలంకారాలలో ఒక దానికి లక్షణాన్ని తెలిపి ఉదాహరణతో సమన్వయం చేయండి. 5 మార్కులు

ఎ. ఉపమాలంకారము. బి. అంత్యాను ప్రాసాలంకారం.

9. ఈ క్రింది పద్యాలలో ఒక దానికి అలంకారాన్ని గుర్తించి లక్షణ సమన్వయం చేయండి. 5 మార్కులు

ఎ. "పుట్టి నేర్చుకొనెనొ పుట్టక నేర్చెనో
చిట్టి బుద్ధులిట్టి పొట్టివడుగు
పొట్టనున్న వెల్ల బూమెలు నని నవ్వి
యిలమి ధరణి దాన మిచ్చె నపుడు.

బి. బ్రతుక వచ్చు గాక బహుబంధనములైన
వచ్చుగాక లేమి వచ్చుగాక
జీవధనములైన చెడుగాక పడుగాక
మాటదిరుగలేరు మానధనులు.

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TELUGU-301 **2018-19** **II DEGREE B.A., B.COM., B.SC.,**

No. of Hrs.: 4 **III SEMESTER – GUIDELINES TO PAPER SETTERS** **Credits: 3**

1వ ప్రశ్న : సందర్భ, సహిత, ప్రతిపదార్థ, తాత్పర్యాలు – ప్రాచీన పద్యభాగం 'వామనావతారం' మరియు శాలివాహన విజయం లోని ఈ క్రింది పద్యాల నుండి ఒక్కొక్కటి చొప్పున మొత్తం 2 ఇవ్వవలెను.

వామనావతారం - బమ్మెర పోతన

1.కారె రాజులు రాజ్యముల్ ---------- యి క్కాలమున్ భార్గవా!

2.నిరయంబైన నిబంధమైన ---------- ధీవర్య! వే యేటికిన్.

3.అమరారాతి కరాక్షతోజ్జిత ---------- విన్యస్తమున్ హస్తమున్.

4.రవిబింబం బుపమింప ---------- బ్రహ్మాండమున్ నిండుచోన్.

శాలివాహన విజయం - కొఱవి గోపరాజు

1.సజ్జిత దానధర్మ ---------- రాజ్యము సేయు చుండగన్.

2.అర్కుని మూర్తి ---------- బంపు నావుడున్.

3.సత్పాత్ర ప్రతి పాదితార్థుడయి -------- నుల్కాదిలక్ష్యంబులై.

4 .వరపుత్రుం డమరేంద్రవైరి ---------- జేటు వాటిల్లదే.

2వ ప్రశ్న : సందర్భ సహిత వ్యాఖ్యలు – 'వామనావతారము' నుండి 2, 'శాలివాహన విజయం' నుండి 2, 'హరిజన శతకం' నుండి 2, 'మనిషి' నుండి 2 మొత్తం 8 ఇవ్వవలెను

3వ ప్రశ్న : వ్యాసరూప సమాధాన ప్రశ్న – ప్రాచీన పద్యభాగంలోని 'వామనావతారం' నుండి 1 'శాలివాహన విజయం' నుండి 1 మొత్తం 2 ఇవ్వవలెను

4వ ప్రశ్న : వ్యాసరూప సమాధాన ప్రశ్న – ఆధునిక పద్యభాగంలోని 'హరిజన శతకం' నుండి 1 'మనిషి' నుండి 1 మొత్తం 2 ఇవ్వవలెను.

5వ ప్రశ్న : వ్యాసరూప సమాధాన ప్రశ్న – 'తెలుగు భాష' నుండి ఒకటి, 'వ్యక్తిత్వవికాసం' నుండి 1 మొత్తం 2 ఇవ్వవలెను.

6వ ప్రశ్న : ఛందస్సు – పద్య లక్షణాల కొరకు వృత్త పద్యాల నుండి 1 బొతులు, ఉపబొతులు నుండి 1 మొత్తం 2 పద్యాల పేర్లు ఇవ్వవలెను.

7వ ప్రశ్న : ఛందస్సు – గణవిభజన కొరకు వృత్తపద్యాల నుండి ఒక పద్య పాదము, బొతులు, ఉపబొతుల నుండి ఒక పద్యపాదము మొత్తం 2 ఇవ్వవలెను.

8వ ప్రశ్న : అలంకారం – అలంకార లక్షణాల కొరకు సిలబస్ లో ఇచ్చిన విధంగా అర్థాలంకారాల నుండి 1 శబ్దాలంకారాల నుండి 1 మొత్తం 2 పేర్లు ఇవ్వవలెను.

9వ ప్రశ్న : అలంకార లక్షణ సమన్వయం కొరకు ('వామనావతారం', 'శాలివాహన విజయం' నుండి మాత్రమే) 2 పద్యాలను ఇవ్వవలెను.

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A.G & S.G. Siddhartha Degree College of Arts & Science
Vuyyuru-521165, Krishna Dist.

(An Autonomous College in the jurisdiction of Krishna university, Machilipatnam. A.P., India)

Re - Accredited at 'A' NAAC

LEADERSHIP EDUCATION 2018 – 2019.

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 : V
PAPER TITLE : LEADER SHIP EDUCATION

COURSE CODE : LEP-404
II B.A.,B COM.,B SC.,

MODEL QUESTION PAPER

SEMESTER-IV
PAPER TITLE : LEADER SHIP EDUCATION

COURS ECODE : LEP-404

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? వ్యవస్థను నిర్వచించుము ?
2. Define management? నిర్వహణ అనగా నేమి ?
3. What is learning? అభ్యాసం అనగా నేమి ?
4. What is motivation? ప్రేరణ అనగా నేమి ?
5. Explain about verbal communication ? వెర్బల్ కమ్యూనికేషన్ ను వివరింపుము ?
6. Write about non verbal communication? నాన్ వెర్బల్ కమ్యూనికేషన్ ను వివరింపుము ?
7. What is conflict? సంఘర్షణ అనగా నేమి ?
8. what is team building activities ? జట్టు నిర్మాణ కార్యకలాపాలు అనగా నేమి ?

SECTION- B

II. Answer any Three of the following questions. 3x10=30Marks

9. What is leader ship? Discuss its importance.
   నాయకత్వం అనగా నేమి ? దాని ప్రాముఖ్యతను వివరింపుము ?
10. What are the Principles of management ? Discuss in detail
    నిర్వహణా సూత్రాలను వివరింపుము ?
11. Discuss Motivation concept and its characteristics ?
    ప్రేరణ అనగానేమి ? ప్రేరణ లక్షణాలను వివరించుము ?
12. What is communication ? Explain process of communication?
    కమ్యూనికేషన్ గురించి వివరింపుము ? కమ్యూనికేషన్ విధానమును వివరింపుము ?
13. Discuss the importance of group dynamic concepts.
    గ్రూప్ డైనమిక్స్ భావన యొక్క ప్రాముఖ్యతను వివరింపుము ?
14. What is team building? What are the approaches of team building.
    జట్టు నిర్మాణం అనగా నేమి ? జట్టు నిర్మాణంలో గల వివిధ విధానాలను వివరింపుము?

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The guidelines to be followed by the question paper setters in leadership for the IV semester-end exams (2018 - 2019)

Paper title : leadership Education
Semester-IV
Maximum Marks : 50
II B.A., B.COM., B.SC.,
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.

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

DEPARTMENT OF ZOOLOGY

2018-2019

BOARD OF STUDIES

Minutes of Meeting

09-04-2018

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 10.30 AM on 09-04-2018 in the Department of Zoology.

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

Members Present:

1) ..... 9/4/18 **(Smt. D.A.Kiranmayee.)**	Chair person	Head, Department of Zoology, A.G&S.G.S Degree College of Vuyyuru-521165.
2)..... **(Prof.B.V.Sandeep.)**	University Nominee	ProfessorDept. of Zoology, Andhra University, Vizag
3)..... **(Smt. D.Uma.)**	Academic Council Nominee	Head, Department of Zoology, S.D.M.S.College,(Autonomous) Vijayawada.
4)..... **(Sri.Ch.Venkateswarlu.)**	Academic Council Nominee	Head, Department of Zoology, P.B. Siddhartha College, Vijayawada.
5)..... 9/4/18 **(kum.M.Lakshmi Priyanka.)**	Member	Lecturer in Zoology, A.G& S.G.S Degree College of Vuyyuru-521165.

Agenda for B.O.S Meeting.

1. To recommend the syllabi (Theory & Practical), Model question paper for Semesters I & II of I B.Sc (BZC) in the academic year 2018-19.

2. To recommend the syllabi (Theory & Practical), Model question paper ,for III & IV Semesters of II B.Sc(BZC) for the academic year 2018-19.

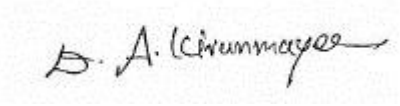
3. To recommend the syllabi (Theory & Practical), Model question paper for V & VI Semesters of III B.Sc(BZC) for the academic year 2018-19.

4. To discuss to the syllabus of Elective& Clusters in VI semester for the academic year 2018-19.

5. To recommend the Guide lines to be followed by the question papers setters in Zoology for I,II,III,IV,V&VI Semester –End exams.

6. To recommend the teaching and evaluation methods to be followed under Autonomous status

7. Any other matter.



Chairman.

RESOLUTIONS

1. It is resolved to continue the same syllabi (Theory & Practical), and model question paper forZoology I& II semesters of I B.Sc. (B.Z.C) under Choice Based Credit System (CBCS) approved by the Academic Council of 2018 – 19.
2. It is resolved to implement the same syllabi (Theory & Practical), model question paper under Choice Based Credit System (CBCS) setters of Zoology of III & IV semesters of II B.Sc. (B.Z.C) ..
3. 4. It is Resoled to follow Elective-A (Immunology) and Cluster –B (Aquaculture) in VI Semester from the Academic year 2018-19.
5.It is resolved to Continue the same Blue prints and guidelines for the paper setters of I,II,III,IV,V & VI Semesters of B.Sc Zoology for the Academic year 2018-19.
6. It is resolved to continue the following teaching and evalution methods for the Academic year 2018-19.
7. It is resolved to conduct Certificate Course in Organic farming for BA, B.Com and B.Sc. students.

Teaching methods:

Besides the conventional methods of teaching, we use modern technology 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

- 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 2018-2019 – 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 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/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 is no pass 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:

I. Internal Assessment Examinations:

- Out of maximum 100 marks in each paper, 25 marks shall be allocated for internal assessment.
- Out of these 25 marks, 15 marks are allocated for announced tests. 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 for semenars& remaining 5 marks for assignments to the Semesters I,II, III & IV. For the V & VI semesters it is resolved to continue the same as approved by Academic Council in 2014 -15.

II. Semester-End Examinations:

- The maximum marks for I,II,& III B.Sc Semester-End examinations 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 end of I, II, III, 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

ZOOLOGY **Semester – I w.e.f. 2017 – 2018**

I B.Sc . **PAPER-I** **(Code: Zoo-101C)**

Credits : 3 **Max.Marks : 75**

Title of the paper: Biology of Non – Chordates. **60 hrs.**(4hrs/week)

UNIT- I **10hrs**

1.1: Significance of Diversity of Invertebrates.

1.2: **Phylum - Protozoa :**

1.2.1: Type study: Elphidium.

1.3: **Phylum - Porifera :**

1.3.1: Type study: Sycon - Morphology, histology, spicules.

1.3.2: Canal system in Sponges.

UNIT- I **16hrs.**

2.1 **Phylum - Coelenterata :**

2.1.1: Type study :Obelia - Morphology, Structure of Polyp & Medusa.

2.1.2: Polymorphism in Coelenterates.

2.1.3: Coral & Coral reef formation.

2.2 **Phylum- Platy helminthes:**

2.2.1: Type study: Fasciola hepatica – Morphology, Excretory system,Reproductive system, Life history &Pathogenecity.

23**Phylum - Nemathelminthes:**

2.3.1: Type study: Ancylostomaduodenale - Morphology & Life history .

UNIT-III **10 hrs**.

3.1 **Phylum - Annelida:**

3.1.1:Type study:Hirudinaria granulose – Morphology, Digestive system, Excretory system & Reproductive system.

3.1.2: Coelome&Coelomoducts.

3.1.3:Vermiculture: Scope, Significance of Vermiculture, Earthworms Sps, Processing of Vermiculture, Vermicompost, and Economic Importance of Vermicompost.

UNIT-IV 15hrs.

4.1: **Phylum - Arthropoda :**

4.1.1:Type study : Prawn – External characters [Except appendages], Respiratory system & Circulatory system.

4.1.2: Peripatus : Structure & affinities.

4.2: **Phylum - Mollusca:**

4.2.1 Pearl Formation in Pelecypoda.

4.2.2 : Torsion in Gastropoda.

UNIT- V9hrs.

Phylum - Echinodermata :

5.1.1 : Water vascular system of Star Fish.

5.2 **Hemichordata :**Balanoglossus : Structure , Affinities.

5.3. **Invertebrates Larval forms:**Amphiblastula, Ephyra, Trochophore, Nauplius, Glochidium, Bipinnaria, Tornaria

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Reference Books :-

1. Modern Text Book of Zoology Invertebrates……..R.L.Kotpal
2. A Text Book of Invertebrates ……. Arumugam et.al.,
3. Economic Zoology ……. Saras Publication

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

Semester - I

Zoology – I **(Model question paper)**

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

Time : 3hrs. **Max. Marks : 75.**

Section – A **5 x 5= 25.** Answer any **five** questions. Each question carries **five** marks. Draw neat labeled diagrams wherever necessary.

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Section – B **5 x 10=50.**

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

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14.
15.
16.

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A.G. & S.G. Siddhartha Degree College of Arts & Science, Vuyyuru,(Autonomous)
Semester – I

Zoology – I

Guide lines to the Paper Setter **Title of the paper:**

Biology of Non – Chordates. **Code – Zoo-101C**

Time : 3hrs. **Max. Marks : 75.**

Note :1. Answer any **five** questions out of eight in Section – A

Each question carries **five** marks5x5 = 25M.

2. Answer any **five** questions out of eight in Section – B. Each question carries Ten marks.

5x10= 50M.

	Section	**UNIT-I** (Pr - Porifera)	**UNIT-II** Coelenterata- Nemathelminthes)	**UNIT-III** (Annelida)	**UNIT-IV** (Arthropoda – Mollusca)	**UNIT-V** (Echinodermata- Hemichordata)
5 Marks Questions	**A**	**1**	**2**	**2**	**1**	**2**
10 Marks Questions	**B**	**2**	**2**	**1**	**2**	**1**
Weightage		**25**	**30**	**20**	**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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ZOOLOGY

PRACTICAL - I

w.e.f. 2017-2018.Code :Zoo- 101P
MAX.MARKS : 50.
(2hrs/week)
Biology of Non – Chordates.

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

Protozoa – General characters & Outline classification upto Classes with examples.
Elphidium, Paramecium –binary fission & Conjugation.

Porifera -General characters & Outline classification upto Classes with examples
Spongilla, Euspongia, Sycon, Sycon – L.S, T.S.

Coelenterata - General characters & Outline classification upto Classes with examples.
Obelia Colony , Medusa, Physalia, Velella, Corallium, Gorgonia, Aurelia, Pennatula

Platyhelminthes - General characters & Outline classification upto Classes with examples
. Planaria, Larval stages of Fasciola – Miracidium, Redia, Cercaria, Echinococcus granulosus

Nemathelminthes - General characters & Outline classification upto Classes with examples.
Ascaris male & female, Ancylostoma duodenale.

Annelida -General characters & Outline classification upto Classes with examples.
Neries, Heteroneries, Aphrodite, Hirudo, Trochophore Larva.

Arthropoda - General characters &Outline classification upto Classes with examples.
Mouth parts of male & female Anopheles& Culex, Mouth parts of House fly, Nauplius , Mysis , Zoea Larvae. Scorpion, Crab, Prawn ,Scolopendra, Sacculina Limulus, Peripatus.

Mollusca - General characters & Outline classification upto Classes with examples.
Chiton, Murex, Sepia , Loligo,Octopus, Nautilus, Glochidium larva.

Echinodermata - General characters & Outline classification upto Classes with examples.
Ophiothrix, Echinus, Clypeaster, Cucumaria, Antedon,Asterias.Bipinnaria larva.

Hemichordata- Balanoglossus, Tornaria larva.

Demonstration of dissection / dissected / Virtual Dissections.

1. Leech / Prawn / Scorpion / Crab - Digestive system .
2. Prawn - Appendages,
3. Prawn / Scorpion / Crab - Nervous system,
4. Pila / Unio – Digestive system,
5. Mounting of statocyst
6. Mounting of Radula.

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

Biology of Non – Chordates. w.e.f. 2017-2018.

(3 hrs/week)

MODEL QUESTION PAPER -I Code: ZOO-101P

Credits: 2.

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

I. Draw neat labeled diagram of Digestive system of 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

1. 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 & 3Marks 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

Biology of Non- Chordates

Internal Practical I Code: ZOO-101P.

MODEL QUESTION PAPER -II

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

ZOOLOGY

SEMESTER - II

w.e.f. - 2017 - 18

I B.Sc BZC (Code : ZOO -201 C)

No. of Hours per week : 4 Max.Marks: 70

Credits : 3 Pass Mark : 28

Title of the Paper : Biology of Chordates

UNIT I15hrs

1.1. Prochordata

1.1.1. Structure of Branchiostoma

1.1.2.Affinities of Cephalochordata

1.1.3.Structure and Life History of Herdmania

1.1.4.Significance of Retrogressive metamorphosis

UNIT II 15hrs

2.1.Cyclostomata

2.1.Differences between Petromyzon and Myxine

2.2.Pisces

2.2.1.Scoliodon- External features, Digestive System, Respiratory System, Heart, Brain

2.2.2.Migration in Fishes

2.2.3.Dipnoi

UNIT III 10hrs.

3.1.Amphibia

3.1.1.Ranahexadactyla - External features, Digestive System, Respiratory System, Heart, Brain

3.1.2.Parental care in Amphibians

3.2.Reptilia

3.2.1.Calotes - External features, Digestive System, Respiratory System, Heart, Brain

UNIT IV

12hrs

4.1.Aves

4.1.1.Columbalivia - Exoskeleton, Digestive System, Respiratory System, Heart, Brain

4.1.2.Migration in Birds

4.1.3.Flight adaptations in Birds

UNIT V 8hrs

5.1.Mammalia

5.1.1. Differences between Prototheria & Metatheria.

5.1.2. Dentition in Mammals.

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Krishna Dt. A.P. (Autonomous)

Semester - I

Zoology – I **(Model question paper)**

Code – Zoo-201C Title of the paper: Biology of Chordates.

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

Section – A **5 x 4 = 20.**

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

1.
2.
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Section – B **5 x 10 =50.**

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

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14.

15.

16.

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

Semester – I

Zoology – I

Guide lines to the Paper Setter

Title of the paper: Biology of Chordates. Code – Zoo-201C

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

Note: 1. Answer any **five** questions out of eight in Section – A. Each question carries **four** marks. 5x4 = 20M.

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

	Section	**UNIT-I** prochordata	**UNIT-II** Cyclostomata &Pisces	UNIT-III Amphibia & Reptilia	**UNIT-IV** Aves	**UNIT-V** Mammalia
4 Marks Questions	**A**	**1**	**2**	**2**	**2**	**1**
10 Marks Questions	**B**	**1**	**2**	**2**	**2**	**1**
Weightage		**14**	**28**	**28**	**28**	**14**

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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PRACTICAL - II

w.e.f. 2017 - 2018

I B.Sc **Code : ZOO - 201P C**

Hours / Week: 3 **Max. Marks: 50**

Credits: 2 **External : 25**

PAPER TITLE: BIOLOGY OF CHORDATES

Observation of the following slides / specimens / models:

Protochordata: Salient features of Urochordata &Cephalochordata.
Herdmania, Amphioxus, Amphioxus T.S. through pharynx.

Cyclostomata : General Characters of Cyclostomes.
Petromyzon, Myxine.

Pisces : General Characters & Classification upto Sub- Class level.
Pristis, Torpedo, Channa, Pleuronectes, Hippocampus, Exocoetus, Echeneis&Labeo
Types of Scales: Placoid scale, Cycloid scale, Ctenoid scale.

Amphibia : General Characters & Classification upto Order level.
Ichthyophis, Amblystoma, Siren, Hyla, Rachophorus,Axolotl larva.

Reptilia : General Characters & Classification upto Order level.
Draco,Chamaeleon,Uromastix,Russelsviper, Naja, Bungarus,Enhydrina& Testudo.

Aves :General Characters & Classification upto Sub- Class level.
Passer, Psittacula, Bubo, Alcedo, Columba, Corvus, Pavo.

Mammalia : General Characters & Classification upto Sub- Class level.
Ornithorthynchus,Tachyglossus,Pteropus, Funambulus, Manis, Loris, Hedgehog.

Osteology : Appendicular skeletons of Varanus , Pigeon, Rabbit – Skull, Fore limbs, Hind limbs .

Demonstration of dissection / dissected / virtual dissection:

1. V, VII, IX, X Cranial nerves of shark / locally available fishes.
2. Arterial system, venous system of Shark / Calotes / Fowl / Rat.
3. Digestive system of fish.

- **Laboratory record work shall be submitted at the time of practical examination**
- **Compulsory one species to be adopted for demonstration only by the faculty**

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165
EXTERNAL PRACTICAL- II
w.e.f. 2017-2018.

BIOLOGY OF CHORDATES 3 hrs/week)
MODEL QUESTION PAPER -II **Code: ZOO-201P**
Credits: 2.
Time: 3 hrs. **Max.marks: 25m.**

3. Draw neat labeled diagram of IX &X Cranial nerves of Shark. 7M
4. Spotters: Identify , draw labeled diagram & write notes on
A, B, C, D & E 5X3=15M
5. Viva. 3M
TOTAL: 25M.

Guide lines for the practical Examiners

List of dissections :(5marks for diagram & 2 marks for labeling)

1. V, VII, IX, X Cranial nerves of shark/ locally available fishes.
2. Arterial system, venous system of shark/ Calotes/Fowl/Rat.
3. Digestive system of fish.

Spotters: 1Mark for identification, 1 Mark for labeled diagram & 1 Mark for notes for each spotter.
Chordata: 4 Specimens / Slides / Models
(Prochordates, Fishes, Amphibians, Reptiles, Birds&Mammals)
Bone -1.

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A. G.& S.G. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU-521165
INTERNAL PRACTICAL- II
BIOLOGY OF CHORDATES
w.e.f. 2017-2018.
(3 hrs/week).

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 - III w.e.f. - 2017 - 18

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

Max.Marks: 100

Credits: 4 **External :**75

Title of the Paper : Cytology, Genetics and Evolution. Internal :25

Unit – I (Cytology-I)

1.1Cytology - I

1.1.1 Electron microscopic structure of cell

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

Unit – II (Cell Organelles)

2.1 Cell Organelles

2.1.1. Stricture and functions of Endoplasmic reticulum.

2.2.2. Stricture and functions of Golgi body.

2.3.3. Stricture and functions of Ribosome's.

2.4.4. Stricture and functions of Lysosomes.

2.5.5. Stricture and functions of Mitochondria.

2.6.6. Chromosomes - Structure, types & functions

Unit – III (Genetics-I)

3.1 Genetics-I

3.1.1. Mendel's Laws of Inheritance.

3.1.2. Incomplete dominance and co-dominance

3.1.3**.** Lethal alleles, Epistasis

3.1.4. Linkage and crossing over

Unit – IV (Genetics-II)

4.1 Genetics - II

4.1.1. Sex determination (Male hetero & female homogametic, female hetero & male, homogametic type, Haplo – Diploid, Genic Balance Theory, Barr bodies.

4.1.2 **.**Sex linked inheritance (X – linked, Y – linked & XY – linked inheritance. Sex – limited and Sex influenced inheritance.

4.1.3**.** Extra chromosomal inheritance (Kappa particles in Paramecium)

Unit – V (Evolution)

5.1.Evolution5.1.1. Origin of life.

5.1.2. Hardy – Weinberg Equilibrium.

5.1.3. Lamarckism, Darwinism, Neo – Darwinism.

5.1.4. Isolation.

5.1.5. Speciation (Allopatric and Sympatric).

Reference Books:

1**.** Cell Biology, Genetics & Evolution ---------- P.S Varama& V.K Agarwal

2.Cell & Molecular Biology……. Mohan P. Arora,

3. Cell Biology ……. S.C.Rastogi,

4. Genetics ---------- Dr. R. P. Meyyan& P.K. Gupta

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

SEMESTER - III

Time: 3hrs.

MODEL QUESTION PAPER

Section – A 5 x 5 = 25.

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

1.Cytoplasam.కణపదార్థము.
2.Fluid mosaic model. ద్రవమొజాయిక్నమూనా.
3.Golgi body.గాల్గిదేహము.
4.Mitochondria.మైటోకాండ్రియా.
5.Crossing Over.వినిమయము.
6. Linkage.సహలగ్నత
7.Barr bodies.బార్దేహములు.
8.Hardy- Weinberg law.హార్డివెయిన్బర్గ్సూత్రము.

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?
యూకారియాటికూస్ట్రక్చరల్కణనిర్మాణంనువివరింపుము.
10.Give an account of structure and functions of Endoplasmic reticulum.
అంతర్జీవద్రవ్యజాలకంయొక్కనిర్మాణముమరియువిధులనుగూర్చివ్రాయుము.
11.Describe the structure and functions of plasma membrane.
ప్లాస్మాత్వచముయొక్కనిర్మాణముమరియువిధులనుగూర్చివ్రాయుము.
12.Explain the structure and types of chromosomes?
క్రోమోజోములనిర్మాణముమరియురకములనుగూర్చివ్రాయుము.
13.Describe the Mendel's laws of Inheritance?
మెండల్అనువంశికసూత్రములనుగూర్చివివరింపుము.
14.Write an essay on Epistasis.
ఎపిస్టాటిస్గూర్చివ్యాసంవ్రాయుము.
15.Explain sex determination with the help of Balance theory.
లింగసంతులనుసిద్ధాంతంద్వారలింగనిర్ధారణనువివరింపుము.
16. Write an essay on Isolation?
వివక్తతగూర్చివ్యాసంవ్రాయుము.

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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 **Title of the paper:**

Cytology, Genetic & EvolutionCode – Zoo-301C

Time: 3hrs.

1. Answer any **five** questions out of eight in Section .A. Each question carries five marks. 5x5=25m.

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

ZOOLOGY PRACTICAL SYLLABUS

PAPER – III

Periods: 24Max.Marks:50 Paper Title: Cytology, Genetics & Evolution.

Code: ZOO 301P

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

MODEL QUESTION PAPER

EXTERNAL PRACTICAL –III

Cytology, Genetics & EvolutionCode: ZOO-301P.

I. CytologyMax.marks:25M

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

Total=25M

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INTERNAL PRACTICAL

Max.marks:25M.

Time: 3hrs.

1. Attendance ---------- 5M.
2. Record ---------- 10M.
3. Field trip & Field note book ----------10M.

otal------ 25M.

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SEMESTER - IVw.e.f. - 2017 - 18

Class :II B.Sc (B.Z.C)**Paper Code :** ZOO -401C

Credits : 4 **Max.Marks:** 100

60 hrs. (4hrs / week) **External :** 75

Internal :25

Title of the Paper: Embryology, Physiology and Ecology.

Unit – I
(Embryology)

1.1 Developmental Biology and Embryology

1.1.1 Gametogenesis (Spermatogenesis, Oogenesis)

1.1.2 Fertilization

1.1.3 Types of eggs

1.1.4 Types of cleavages

1.2 Development of Frog upto formation of Primary germ layers.

1.3 Foetal membranes in Chick

1.4Development - types and functions of Placenta in mammals

Unit – II
(Physiology - I)

2.1 Physiology - I

2.1.1 Elementary study of digestive process

2.1.2 Absorption of digested food

2.1.3 **Respiration** – Structure of mammalian Lung & Mechanism of respiration , transport of oxygen and carbon dioxide

2.1.4 **Circulation** - Structure and functioning of heart, Cardiac cycle

2.1.5 **Excretion** - Structure of nephron, urine formation, counter current mechanism

Unit – III
(Physiology - II)

3.1 Physiology - II

3.1.1 Structure & functional properties of Nerve Cell, Production &propagation of nerve impulse Resting potential & Action Potential, Synaptic transmission.

3.1.2 Muscle contraction - Ultra structure of muscle fibre, molecular and chemical basis of muscle contraction.

3.1.3 Endocrine glands - Structure, secretions and the functions (of hormones) ofpituitary, thyroid, parathyroid, adrenal glands and pancreas.

3.1.4 Hormonal control of reproduction in Mammals.

Unit – IV
(Ecology – I)

4.1 Ecology - I

4.1.1 Abiotic factors of Ecosystem – Temperature & Light.

4.1.2 Nutrient cycles - Nitrogen, Carbon and Phosphorus.

4.1.3 Components of Ecosystem (Example: lake), food chains and food web, energy flow in ecosystem.

Unit – V
(Ecology - II, Zoogeography)

5.1 Ecology - II

5.1.1 Habitat and ecological niche.

5.1.2 Community interactions - Mutualism, commensalism, parasitism.

5.1.3 Ecological succession.

5.2 Zoogeography

5.2.1 Study of physical and faunal peculiarities of Oriental, Australian and Ethiopian regions.

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

SEMESTER- IV
(Model Question paper)

Time :3 hrs **Max.Marks:75**

Part – A

Answer **any five** questions out of eight in Section-A . Each question carries five marks. **5 X 5 = 25**

1.
2.
3.
4.
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Part – B

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

9.
10.
11.
12.
13.
14.
15.
16.

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A. G & S. G. S Degree College Of Arts &Science,Vuyyuru 521165, Krishna Dt., A.P.
(Autonomous)
SEMESTER-IV

Time :3 hrs

Max.Marks:75

Guide lines to the paper setter

Note :1. Answer **any five** questions out of eight in Section-A . Each question carries five marks. 5 X 5 = 25M.

2. Answer **any five** questions in Section-B . Each question carries 10 marks. 5 X 10 = 50M.

	Section	**Unit – I** Embryology	**Unit – II** Physiology - I	**Unit – III** Physiology - II	**Unit – IV** Ecology-I	**Unit – V** Ecology - II, Zoogeography
5 Marks Questions	**A**	**2**	**1**	**2**	**1**	**2**
10Marks Questions	**B**	**2**	**2**	**1**	**1**	**2**
Weightage		**30**	**25**	**25**	**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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ZOOLOGY PRACTICAL SYLLABUS - SEMESTER - IV

ZOOLOGY - PAPER – IVw.e.f: 2017-18

Max. Marks : 50

Paper Code: 401P

Periods: 24

Title:Embryology, Physiology and Ecology

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. SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU

ZOOLOGY PRACTICAL -IV

Embryology,Physiology & Ecology

Model question paper (External) Paper Code: ZOO-401C

Max.Marks: 25 M.

.

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. Determinethe pH of given sample. 1x2=2M.
6. Estimate the dissolved oxygen in the given sample. 1x5=5M.

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ZOOLOGY PRACTICAL -IV INTERNAL

Embryology,Physiology& Ecology 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 - V (CBCS)

(Zoology paper-V)

Class: III B.Sc (B.Z.C) w.e.f.- 2017-18

60 Hrs.(6hrs/week) paper code:Zoo-501C

Credits :3 External :75

BiotechnologyInternal:25

Unit 1:Tools of Recombinant DNA technology - Enzymes and Vectors **15 Hrs.**

1.1 Restriction modification systems : **:** Types I, II and III- Nomenclature, Mode of action.

1.1.2: Applications of Type II restriction enzymes in genetic engineering

1.2 DNA modifying enzymes and their applications:

1.2.1: DNA polymerases, Terminal deoxynucleotidyl transferase, kinases and phosphatases,and DNA ligases

1.3 **Cloning Vectors:**

1.3.1 : Properties of Cloning Vectors

1.3.2: Plasmid vectors:pBR and pUC 18, Bacteriophage lambda and M13 based vectors, Cosmids.

1.3.3: Artificial Chromosome Vectors: BACs, YACs,

Unit 2: Techniques of Recombinant DNA technology **15 Hrs.**

2.1 Cloning:

2.1.1: Procedure of gene cloning

2.1.2: Use of linkers and adaptors

2.2 Gene delivery:

2.2.1 : Microinjection, electroporation, biolistic method (gene gun),Calcium method.

2.3 **PCR:**

2.3.1: Basics of PCR: Definition, Principle and Procedure of PCR.

2.4 DNA Sequencing:

2.4.1: Sanger's method of DNA sequencing- traditional and automated sequencing

2.4.2:DNA finger printing.

2.5 Hybridization techniques:

2.5.1: Southern, Northern and Western blotting.

2.6 Genomic and cDNA libraries:

2.6.1: Preparation and uses

UNIT 3 Animal Cell Technology **10 Hrs.**

3.1 Cell culture media:

3.1.1: Natural and Synthetic

3.2 Types Cell cultures:

3.2.1: primary culture, secondary culture,

3.2.2: Protocols for Primary Cell Culture

3.2.3: Continuous cell lines , Established Cell lines (common examples such as MRC, HeLa,CHO, BHK, Vero)

3.2.4: Cryopreservation of cultures.

3.3 Hybridoma Technology:

3.3.1: Cell fusion, Production of Monoclonal antibodies (mAb)

3.3.2: Applications of mAb

3.4 **Stem cells:**

3.4.1: Types of stem cells- Embryonic and Adult Stem Cells

3.4.2: Applications of Stem Cell Technology in Cell based therapy- Diabetes and Parkinson's diseases.

Unit 4: Reproductive Technologies & Transgenic Animals **10 Hrs.**

4.1 Manipulation of reproduction in animals:

4.1.1: Artificial Insemination, *In vitro* fertilization .

4.1.2: super ovulation, Embryo transfer, Embryo cloning

4.2 **Transgenic Animals:**

4.2.1: Production of Transgenic Animals- sheep,fish

Unit 5: Applied Biotechnology **10 Hrs.**

5.1 Industry:

5.1.1: Fermentation: Different types of Fermentation.

5.1.2: Submerged & Solid state, batch, Fed batch & Continuous (Short notes only)

5.1.3: Downstream processing - Filtration, centrifugation, extraction, chromatography, spray drying and lyophilization

5.2 Fisheries : 5.2.1: Polyploidy in fishes

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.
4. Sambrook J and Russell D. (2001). Molecular Cloning-A Laboratory Manual. 3rd edition. ColdSpring Harbor Laboratory Press
5. Wiley JM, Sherwood LM and Woolverton CJ. (2008). Prescott, Harley and Klein's Microbiology. McGraw Hill Higher Education
6. Brown TA. (2007). Genomes-3. Garland Science Publishers
7. Primrose SB and Twyman RM. (2008). Genomics: Applications in human biology. Blackwell Publishing, Oxford, U.K.

A.G& S.G.S.DEGREECOLLEGE OF ARTS & SCIENCE,VUYYURU (AUTONOMOUS)

SEMESTER-V (Model Question paper)

Paper Title :Animal Biotechnology Paper Code : 501C

Answer **any five** questions out of eight in Part - A . Each question carries five marks.**5 X 5 = 25**

1.
2.
3.
4.
5.
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7.
8.

Part – B

Answer **any five** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

9.
10.
11.
12.
13.
14.
15.
16.

SEMESTER-V

Time :3hrs **Max.Marks:75**

Guide lines to the paper setter

Paper Title : Animal Biotechnology **Paper Code : 501C**

*Note :*1. Answer **any five** questions out of eight in Part-A . Each question carries five marks.5 X 5 = 25M.

2. Answer **any five** questions 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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A. G & S. G. S. DEGREE COLLEGE OF ARTS & SCIENCE,VUYYURU 521165, KRISHNA Dt., A.P. (AUTONOMOUS)

ZOOLOGY PRACTICAL SYLLABUS

PAPER - V

Periods : 30Max.Marks:50
Credits :2 Code: ZOO-501P Paper
Title : Animal Biotechnology

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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

Guide lines for the Practical Examiners.

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 onA & 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 PCRdemonstration)

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

Practical - V **w.e.f. 2017 - 18**

(Animal Biotechnology) **Max. Marks : 25**

Model Question Paper (External) **Paper Code : ZOO-501P**

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=10m

A & B

4. PCR (demonstration) on site or of site demonstration. 5m

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Total: 25m

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Practical - V **w.e.f. 2017 - 18**

(Animal Biotechnology) **Max. Marks : 25**

Model Question Paper (Internal) **Paper Code : ZOO-501P**

1. Attendance -- 5 M

2. Record -- 10M

3. Field trip & Field note book -- 10M

Total -- 25M

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SEMESTER - V (CBCS)

(Zoology paper-VI)

Class: IIIB.Sc (B.Z.C) w.e.f.-2017-18
60 Hrs(6hrs/ week) paper code:Zoo-502C
Credits :3 External : 75Title of the Paper : Animal Husbandry.
Internal:25

UNIT – I : 10 Hours

1.1 General introduction to poultry farming.
1.2 Principles of poultry housing. Poultry houses.
1.3 Systemsof poultry farming.
1.4 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.
3.2 Egg testing.
3.3 Methods of hatching.
3.4 Brooding and rearing.
3.5 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)

Paper Title : Animal Husbandry Paper Code : Zoo-502C

Answer **any five** questions out of eight in Part - A . Each question carries five marks.**5 X 5 = 25**

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Part – B

Answer **any five** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

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SEMESTER - VI

ZOOLOGY –ELECTIVE PAPER: VII-(A)

Class: III B.Sc (B.Z.C) w.e.f.- 2017- 18
60 Hrs. Paper code: Zoo- 601-A(El)
Credits :3 Internal:25
Immunology

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 Structure of antibody
3.1.2 Classes and functions of antibodies
3.1.3Monoclonal antibodies
Unit – IV

4.1 Working of Immune system
4.1.1 Structure and functions of major histocompatibility complexes
4.1.2 Exogenes and Endogenes pathways of antigen presentation and processing
4.1.3 Basic properties and functions of cytokines
Unit – V

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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SEMESTER-VI (Model Question paper)

Paper Code : Zoo-601-A(El)
Paper Title :Immunology

Part - A

Answer **any five** questions out of eight in Part - A . Each question carries five marks.**5 X 5 = 25**

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Part – B

Answer **any five** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

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ZOOLOGY PRACTICAL SYLLABUS

Period : 30

PAPER – VI
Max.Marks:50

Credits :2

Paper Code : Zoo-601-A (El)P

Paper Title: Immunology

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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SEMESTER - VI (CBCS)

Class: III B.Sc (B.Z.C) (Cluster Elective Paper: VIII-B-1) **w.e.f. -** 2017 - 18

60 Hrs.(6hrs/week) Paper Code : ZOO-602B-1(Cl)

Credits : 3 External : 75

Title of the Paper: **Principles of Aquaculture**. Internal:25

UNIT -I

1.1 Introduction / Basics of Aquaculture **15hrs**

1.1.1 Definition, Significance and History of Aquaculture

1.1.2 Present status of Aquaculture – Global and National scenario

1.1.3 Major cultivable species for aquaculture: freshwater, brackish water and marine.

1.1.4 Criteria for the selection of species for culture

Unit – II

2.1 Types of Aquaculture **15hrs**

2.1.1 Freshwater, Brackishwater and Marine

2.1.2 Concept of Monoculture, Polyculture,Composite culture, Monosex culture and Integrated fish farming

2.2Culture systems

2.2.1 Ponds, Raceways, Cages, Pens, Rafts and water recirculating systems

2.3Culture practices

2.3.1Traditional, extensive, modified extensive, semi-intensive and intensive cultures of fish and shrimp.

Unit – III

3.1 Design and construction of aquafarms **15hrs**

3.1.1Criteria for the selection of site for freshwater and brackish water pond farms

3.1.2 Design and construction of fish and shrimp farms

3.2 Seed resources

3.2.1 Natural seed resources and Procurement of seed for stocking: Carp and shrimp

3.3 Nutrition and feeds

3.3.1 Nutritional requirements of a cultivable fish and shellfish

3.3.2 Natural food and Artificial feeds and their importance in fish and shrimp culture

Unit – IV

4.1Management of carp culture ponds **10hrs**

4.1.1 Culture of Indian major carps: Pre-stocking management – Dewatering, drying, ploughing/desilting; Predators, weeds and algal blooms and their control, Liming and fertilization; Stocking management – Stocking density and stocking; Post-stocking management – Feeding, water quality, growth and health care; and Harvesting ofponds

4.2Culture of giant freshwater prawn, *Macrobrachiumrosenbergii*

Unit – V

5.1 Types of cultures **10hrs**

5.1.1Culture of shrimp (*Penaeus monodon* or *Litopenaeus vannamei*)

5.1.2 Culture of pearl oysters

5.1.3 Culture of seaweeds-species cultured, culture techniques, important by-products, prospects

5.1.4 Culture of ornamental fishes – Setting up and maintenance of aquarium; and breeding.

REFERENCES BOOKS

1. Bardach, JE *et al*. 1972. *Aquaculture – The farming and husbandry of freshwater and marine organisms*, John Wiley & Sons, New York.
2. Bose AN et al.1991. *Coastal aquaculture Engineering*. Oxford & IBH Publ.Co.Pvt.Ltd.
3. Chakraborty C & Sadhu AK. 2000. *Biology Hatchery and Culture Technology of Tiger Prawn and Giant Freshwater Prawn.* Daya Publ. House.
4. FAO. 2007. *Manual on Freshwater Prawn Farming*.
5. Huet J. 1986. *A text Book of Fish Culture*. Fishing News Books Ltd.
6. ICAR. 2006. *Hand Book of Fisheries and Aquaculture*. ICAR.
7. Ivar LO. 2007. *Aquaculture Engineering*. Daya Publ. House.
8. Jhingran V.G. 2007. *Fish and Fisheries of India*. Hindustan Publ. Corporation, India.
9. Landau M. 1992. *Introduction to Aquaculture*. John Wiley & Sons.

SEMESTER-VI
Cluster Electives paper –VIII-B-1

Guide lines to the paper setterTime :3 hrs
Max.Marks:75

Paper Title :

Principles of Aquaculture **Paper Code : Zoo-602B-1(El)**

*Note :*1. Answer **<u>any five</u>** questions out of eight in Part-A . Each question carries five marks.

5 X 5 = 25M.

2. Answer **<u>any five</u>** questions in Part-B . Each question carries 10 marks.

5 X 10 = 40M.

	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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SEMESTER-VI (Model Question paper)
Cluster Electives paper –VIII-B-1

Time : 3 hrs **Max.Marks:75**

Paper Title : Principles of Aquaculture **Paper Code : Zoo-602B-1(El)**

Part - A

Answer **any five** questions out of eight in Part - A . Each question carries five marks.**5 X 5 = 25**

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Part – B

Answer **any five** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

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ZOOLOGY PRACTICAL – I

Credits:2 **PAPER – VIII** Periods : 30

Max.Marks:50 **Paper Title :** Principles of Aquaculture

Code : ZOO-602B-1(El)P

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;
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

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Practical - VI **w.e.f. 2017 - 18**

Principles of AquacultureMax. Marks : 25 **Model Question Paper (External)**

Paper Code : ZOO-601B (El)P

I. Cultivable fishes:

1. Spotters: Identify , draw neat labeled diagram and comment on 4X2=8M
   A,B,C & D

II.Diseases:

2.. Identification and study of fish and shrimp diseases - Using specimens / pictures 2X2=4M
   A &B

   3External 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 .2X2=4M

A & B

6. Salinity in the pond water sample. 3M

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Practical - VI **w.e.f. 2017 - 18**

Principles of AquacultureMax. Marks : 25 **Model Question Paper (Internal)**

Paper Code : ZOO-601B (El)P

1. Attendance	--	5 M
2. Record	--	10M
3. Assignments	--	10M
	Total --	25M

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SEMESTER - VI (CBCS) **w.e.f. -** 2017 - 18

Class: III B.Sc (B.Z.C) (Cluster Elective Paper: VIII-B-2) 60 Hrs.(6hrs/week)

Paper Code : ZOO-603B-2(El) Credits : 3 External : 75

Internal:25

Title of the Paper: **Aquaculture Management**.

Unit – I

1.1Breeding and Hatchery Management **10hrs**

1.1.1 Bundh Breeding and Induced breeding of carp by Hypophysation; anduse ofsynthetichormones.

1.1.2Types of fish hatcheries; Hatchery management of Indian major carps

1.1.3 Breeding and Hatchery management of *Penaeus monodon/ Litopenaeus vannamei*

1.1.4 Breeding and Hatchery management of giant freshwater prawn.

Unit – II

2.1 Water quality Management **10hrs**

2.1.1Water quality and soil characteristics suitable for fish and shrimp culture

2.1.2 Identification of oxygen depletion problems and control mechanisms in culture ponds

2.1.3 Aeration: Principles of aeration and Emergency aeration

2.1.4 Liming materials, Organic manures and Inorganic fertilizers commonly used andtheirimplications in fish Ponds.

Unit – III

3.1 Feed Management **15hrs**

3.1.1Live Foods and their role in shrimp larval nutrition.

3.1.2 Supplementary feeds: Principal foods in artificial diets; Types of feeds; FeedadditivesandPreservatives; role of probiotics.

3.1.3 Feed formulation and manufacturing; Feed storage

3.1.4 Feeding strategies: Feeding devices, feeding schedules and ration size; Feedevaluation- feed conversion efficiencies and ratios

Unit – IV

4.1 Disease Management **15hrs**

4.1.1 Principles of disease diagnosis and health management;

4.1.2 Prophylaxis, Hygiene and Therapy of fish diseases

4.1.3 Specific and non-specific defense systems in fish; Fish immunization andvaccination

4.1.4Etiology, Symptoms, prophylaxis and therapy of common fish diseases in fish ponds

4.1.5Etiology, Symptoms, prophylaxis and therapy of common shrimp diseases in shrimp ponds

Unit – V

5.1 Economics and Marketing **15hrs**

5.1.1 Principles of aquaculture economics – Capital costs, variable costs, cost-benefit analysis

5.1.2Fish marketing methods in India; Basic concepts in demand and price analysis

5.2 Fisheries Extension

5.1.3 Fisheries Training and Education in India; Role of extension in communitydevelopment.

5.3 Fish Genetics

5.1.4 Genetic improvement of fish stocks – Hybridization of fish.

5.1.5 Gynogenesis, Androgenesis, Polyploidy, Transgenic fish, Cryopreservation of gametes, Production of monosex and sterile fishes and their significance in aquaculture.

REFERENCE BOOKS

1. Boyd CE. 1979. *Water Quality in Warm Water Fish Ponds*. Auburn University

2. Boyd, CE. 1982. *Water Quality Management for Pond Fish Culture.* Elsevier Sci. Publ. Co.

3. Chakraborty C & Sadhu AK. 2000. *Biology Hatchery and Culture Technology of Tiger Prawn and GiantFreshwater Prawn*. Daya Publ. House

4. Conroy CA and Herman RL. 1968. *Text book of Fish Diseases*. TFH (Great Britain) Ltd, England.

5.Halver J & Hardy RW. 2002. *Fish Nutrition*. Academic Press.

6. Ian C. 1984. *Marketing in Fisheries and Aquaculture*. Fishing News Books.

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SEMESTER-VI
Cluster Electives paper –VIII-B-2

Guide lines to the paper setterTime :3 hrs
Max.Marks:75

Paper Title
:Aquaculture Management **Paper Code : Zoo-603B-2(El)**

*Note :*1. Answer **any five** questions out of eight in Part-A . Each question carries five marks.

5 X 5 = 25M.

2. Answer **any five** questions 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.

(AUTONOMOUS)

SEMESTER-VI (Model Question paper)
Cluster Electives paper –VIII-B-2

Time : 3 hrs **Max.Marks:75**

Paper Title : Aquaculture Management. **Paper Code : Zoo-603B-2(El)**

Part - A

Answer **any five** questions out of eight in Part - A . Each question carries five marks.**5 X 5 = 25**

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Part – B

Answer **any five** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

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ZOOLOGY PRACTICAL – II

Credits: 2 **PAPER – VIII-B** **Periods : 30** **Max.Marks:50** **Paper Title :**

Aquaculture Management **Code : ZOO-603B-2(El)P**

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 **w.e.f. 2017-18**

AquacultureManagement **Max. Marks : 25 Model Question Paper (External)** **Paper Code : ZOO-601B-2 (El)P**

I. Nutrition:

1. Identification and study of Live food organisms -A&B . 2X2=4M
2. Estimation of Proximate composition of aquaculture feeds –A&B . $2X2^{1}/_{2}$=5M

II. Post harvest Technology:

3. Cured 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

Practical - VI **w.e.f. 2017 - 18**

AquacultureManagement **Max. Marks : 25** **Model Question Paper (Internal)** **Paper Code : ZOO-601B-2 (El)P**

1. Attendance -- 5 M

2. Record -- 10M

3. Assignments -- 10M

Total -- 25M

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SEMESTER - VI (CBCS)

Class: III B.Sc (B.Z.C) (Cluster Elective Paper: VIII-B-3) **w.e.f. -** 2017 - 1860 Hrs
Paper Code : ZOO-604B-3(El)
Credits : 3 External : 75
Title of the Paper: **Postharvest Technology.** Internal:25

Unit – I

1.1 Handling and Principles of fish Preservation

1.1.1 Handling of fresh fish, storage and transport of fresh fish, post mortem changes (rigormortis and spoilage), spoilage in marine fish and freshwater fish.

1.1.2 Principles of preservation– cleaning, lowering of temperature, rising of temperature, denudation, use of salt, use of fish preservatives, exposure to lowradiation of gamma rays.

Unit – II

2.1 Methods of fish Preservation

2.1.1 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

3.1.1Fish products – fish minced meat, fish meal, fish oil, fish liquid (ensilage), fish protein concentrate, fish chowder, fish cake, fish sauce, fish salads, fish powder, pet food from trash fish, fish manure.

3.1.2 Fish by-products – fish glue, ising glass, chitosan, pearl essence, shark fins, fish leather and fish maws.

3.2Seaweed Products

3.2.1Preparation of agar, algin and carrageen. Use of seaweeds as food for humanconsumption, in diseasetreatment and preparation of therapeutic drugs.

Unit – IV

4.1Sanitation and Quality control

4.2.1 Sanitation in processing plants - Environmental hygiene and Personal hygiene in processing plants.

4.2.2 Quality Control of fish and fishery products – pre-processing control, control during processing and control after processing.

4.2 Regulatory affairs in industries

Unit – V

5.1 Quality Assurance, Management and Certification

5.1.1Seafood Quality Assurance and Systems: Good Manufacturing Practices (GMPs); Good Laboratory Practices (GLPs); Standard Operating Procedures (SOPs); Concept of Hazard Analysis and Critical Control Points (HACCP) in seafood safety.

5.1.2 National and International standards – ISO 9000: 2000 Series of Quality Assurance System, Codex Alimentarius.

REFERENCE BOOKS

1. Balachandran KK. 2001. *Post-harvest Technology of Fish and Fish Products*. Daya Publ.

2. Bond, et al. 1971. *Fish Inspection and Quality Control.* Fishing News Books, England
.
3 Clucas IJ. 1981. *Fish Handling, Preservation and Processing in the Tropics*. Parts I, II. FAO
.
4. Gopakumar K. (Ed.). 2002. *Text Book of Fish Processing Technology*. ICAR.

5. Govindan, TK.1985. *Fish Processing Technology,* Oxford-IBH.

6. Hall GM. (Ed). 1992. *Fish Processing Technology*. Blackie.

7. Huss HH, Jakobsen M & Liston J. 1991. *Quality Assurance in the Fish Industry.* Elsevier.

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(AUTONOMOUS)
SEMESTER-VI
Cluster Electives paper –VIII-B-3

Guide lines to the paper setterTime :3 hrs

Max.Marks:75

Paper Title

:Postharvest Technology. **Paper Code : Zoo-604B-3(El)**

*Note :*1. Answer **<u>any five</u>** questions out of eight in Part-A . Each question carries five marks.

5 X 5 = 25M.

2. Answer **<u>any five</u>** questions in Part-B . Each question carries 10 marks.

5 X 10 = 50M.

	PART	Unit –I	Unit – II	UnitIII	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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SEMESTER-VI (Model Question paper)
Cluster Electives paper –VIII-B-3

Time : 3 hrs **Max.Marks:75**

Paper Title : Postharvest Technology. **Paper Code :Zoo-604B-2 (El)**

Part - A

Answer **any five** questions out of eight in Part - A . Each question carries five marks.**5 X 5 = 25**

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Part – B

Answer **any five** questions out of eight in Part - B .Each question carries Ten marks. **5 X 10 = 50**

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ZOOLOGY PRACTICAL – III

Credits:2 **PAPER – VIII-B** **Periods : 30** **Max.Marks:50** **Paper Title :** Postharvest Technology **Code : ZOO -604B-3(El)P**

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