

A.G&S.G.S DEGREE COLLEGE OF ARTS & SCIENCE, VUYURU
DEPARTMENT OF TELUGU
SEMESTER – I
2018-19 CURRICULAR PLAN

Subject Code: **TEL – 101C** Title: **GENERAL TELUGU**

Month	Unit No.	Topic to be covered
Jun – '18	I	గంగా శంతనుల కథ
Jul – '18	II	గంగా శంతనుల కథ, కన్యక
Aug – '18	III	ద్రౌపది పరిడేవనం, దేశ చరిత్రలు, సంస్కృత సందులు
Sep – '18	IV	చింతలతోపు సాపుకూడు తెలుగు సందులు, సమాసాలు
Oct – '18	V	దోషసవరణలు, పున:శ్చరణ

SEMESTER – III

2018-2019 CURRICULAR PLAN

Subject Code: **TEL – 301C** Title: **GENERAL TELUGU**

Month	Unit No.	Topic to be covered
Jun – '18	I	1.వామనావతారము
Jul – '18	II	2.హరిజన శతకము 3.తెలుగు భాష
Aug – '18	III	4.శాలివాహన విజయము 5.మనిషి
Sep – '18	IV	6.వృక్తిత్వ వికాసము చందస్సు, అలంకారములు
Oct – '18	V	పున:శ్చరణ

SEMESTER – II
CURRICULAR PLAN

Subject Code: **TEL - 201C**

Title: **GENERAL TELUGU**

Month	Unit No.	Topic to be covered
Nov – '18	I	నీతి పద్యాలు సాయుజ్యం
Dec- '18	II	ఆకలి ముసాఫరులు నమ్ముకున్న నేల
Jan – '19	III	సుభద్రా పరిణయం మేఘదూతము
Feb – '19	IV	బతుకాట నవల
MAR – '19	V	పున:శ్చరణ

SEMESTER – IV
2018 -2019 CURRICULAR PLAN

Subject Code: **LEP - 401C**

Title: **LEADER SHIP EDUCATION**

Month	Unit No.	Topic to be covered
Nov – 17	I	వ్యవస్థ నాయకత్వం
Dec- 17	II	నిర్వహణ వ్యక్తిత్వ వికాసం, ప్రేరణ
Jan -18	III	సమాచార వ్యవస్థ వ్యక్తుల పరస్పర సంబంధాలు
Feb -18	IV	గ్రూపు నిర్ణయాకరణ సంఘర్షణ
Mar - 18	V	జట్టు, వివిధ రకాల జట్టు పున:శ్చరణ

ACADEMIC YEAR 2018-2019
SEMESTER – I
CURRICULAR PLAN FOR ODD SEMESTER

Subject Code: HIN 101C

Title: GENERAL HINDI

Month	Unit No.	Topic to be covered
June-‘18	I IV	3. साहित्यकी महत्ता 4. व्याकरण
July-‘18	I II III	2. सच्ची वीरता 1. मुक्तिधन अनुवाद
Aug-‘18	II	2. गूढ़ डसाई 3. उसने कहा था
Sept-‘18	I IV	मित्रता व्याकरण
Oct-‘18	V	पत्रलेखन

SEMESTER – III
CURRICULAR PLAN FOR ODD SEMESTER

Subject Code: HIN 301C

Title : GENERAL HINDI

Month	Unit No.	Topic to be covered
June-‘18	I IV	साखी बालवर्णन मातृभूमि अनुवाद
July-‘18	I II	तोड़ती पत्थर हिन्दी साहित्य का इतिहास भक्तिकाल: ज्ञान ज्ञानाश्रयी शाखा
Aug-‘18	I III	मातृभाषा के प्रति सामान्य निबंध: सामाचारपत्र, कंप्यूटर, पर्यावरण और प्रदूषण
Sept-‘18	II IV	भक्तिकाल: प्रेमाश्रयी शाखा अनुवाद
Oct-‘18	III V	बेकारी की समस्या परिपत्र ज्ञापन राष्ट्रभाषा हिन्दी

ACADEMIC YEAR 2018-2019
SEMESTER -II
CURRICULAR PLAN FOR EVEN SEMESTER

Subject Code: HIN 201C

Title: GENERAL HINDI

Month	Unit No.	Topic to be covered
Nov -'18	I II IV	संकृति और साहित्य का परस्पर संबंध जरिया संधिविच्छेद
Dec-'18	I II III	भारत एक है भूख हड़ताल अनुवाद
Jan-'19	I II III	एचआईवी /एड्स परमात्मा का कुत्ता अनुवाद
Feb-'19	IV V	वाक्य प्रयोग पत्रलेखन
Mar-'19	Revision to all units	

DEPARTMENT OF ENGLISH

ACADEMIC YEAR 2018-2019

SEMESTER – I

CURRICULAR PLAN

Subject Code: ENG 101C

Title: GENERAL ENGLISH – I

Month	Unit No.	Topic to be covered
June-‘18	II	The Road Not Taken
	V	Phonetic Transcription, Problematic Sounds in English, Pronunciation (Sound)
July-‘18	I	The Language of African Literature
	IV	The Merchant of Venice
	V	Exercises in Articles and Prepositions
Aug-‘18	I	The Knowledge Society
	II	Night of the Scorpion
	III	Two Children
	V	Exercises in Tenses
Sept-‘18	III	What Men Live By
	V	Vocabulary(spelling), Sense (meaning)and Syntax
Oct-‘18	V	Exercises in Tenses
		Revision

SEMESTER – III

CURRICULAR PLAN

Subject Code: ENG 301C

Title : GENERAL ENGLISH – II

Month	Unit No.	Topic to be covered
June-‘18	I	Shyness My Shield
	II	Once Upon A Time
	V	Expansion of an idea/a saying/a proverb
July-‘18	I	Why People Really Love Technology
	II	The Solitary Reaper
	V	JAM Sessions, Information Transfer
Aug-‘18	III	The Interpreter of Maladies
	V	Note Taking. Brain Storming the topic through Diagram Note Making,
Sept-‘18	III	The Beloved Charioteer
	IV	Kanyasulkam
	V	Reporting for the Media
Oct-‘18	V	Writing for the Media
		Describing a Picture
		Revision

SEMESTER – III

CURRICULAR PLAN

Subject Code: CSS 301C

Title : COMMUNICATION AND SOFT SKILLS – II

Month	Unit No.	Topic to be covered
June-‘18	I	Pronunciation – 1 : The Sounds of English
	II	Pronunciation – 2 : Word Accent
July-‘18	II	Pronunciation - 2 : Intonation
	III	Speaking Skills – 1: Conversation Skills
		Interview Skills
		Presentation Skills
Aug-‘18	IV	Public Speaking
		Speaking Skills – 2 : Role Play
		Debate
Sept-‘18	V	Group Discussion
		Writing Skills : Spelling
		Punctuation
Oct-‘18		Report Writing
		Revision

ACADEMIC YEAR 2018-2019
SEMESTER -II
CURRICULAR PLAN
Title: GENERAL ENGLISH – I

Subject Code: ENG 201C

Month	Unit No.	Topic to be covered
Nov -'18	I	My Struggle for an Education
	II	Ode to Autumn
	III	The Boy Who Broke the Bank
	IV	Question Tags
Dec-'18	I	The Scientific Point of View
	II	I am Not That Woman
	IV	The Proposal
	V	Transformation of Sentences – Voice, Speech, Degrees of Comparison
Jan-'19	I	Pride, awkwardness and a dangerous accident in Chalisgaon (An Excerpt from his Autobiographical life story 'Waiting for a Visa')
	III	Half A Rupee Worth
	V	Transformation of Sentences – Simple, Compound & Complex, Dialogue Practice(oral), Listening Comprehension
	V	
Feb-'19	V	Guided Composition
	V	Dialogue Writing
	V	Reading Comprehension
Mar-'19	Revision to all units	

Subject Code: CSS-201C

TITLE : COMMUNICATION AND SOFT SKILLS - I

Month	Unit No.	Topic to be covered
Nov -'18	I	Vocabulary Building – Prefixes & Suffixes, One-Word Substitutes, Synonyms & Antonyms
	IV	The Importance of Listening
Dec-'18	I	Conversion, Compounding, Words often confused
	II	Subject-Verb Agreement
	III	Meanings of Modals
	IV	Types of Listening, Barriers to Effective Listening
Jan-'19	I	Analogy, Phrasal Verbs
	III	Common Errors
	V	Reading Skills - Skimming & Scanning
Feb-'19	IV	Strategies for Effective Listening
	V	Intensive Reading & Extensive Reading, Comprehension (Reading)
Mar-'19	Revision to all units	

Subject Code: CSS 401C

Title : COMMUNICATION AND SOFT SKILLS – III

Month	Unit No.	Topic to be covered
Nov -'18	I	Soft Skills – Positive Attitude, Body Language
	IV	Letter Writing
	V	Resume & Curriculum Vitae
Dec-'18	I	Emotional Intelligence, SWOT/C Analysis
	II	Paragraph Writing – Paragraph Structure, Development of Ideas, Matching Para Jumbles
Jan-'19	I	Emotional Intelligence, Netiquette
	III	Paraphrasing – Elements of Effective Paraphrasing, Techniques for Paraphrasing
Feb-'19	III	Summarizing – What makes a good summary? Stages of Summarizing
	IV	E-Correspondence
Mar-'19	IV	Dialogue Writing
	Revision to all units	

A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU
DEPARTMENT OF HISTORY
SEMESTER – I

CURRICULAR PLAN

Subject Code: HIST11B Title: Ancient Indian history and culture (From Indus valley Civil
to 13 century(A.D))

Month	Unit No.	Topic to be covered	Remarks
JUN-18	I	Ancient Indian Civilization (from Circa 3000 BC to 6 th BC):	
JULY-18	II	Ancient Indian History & Culture (6 th Century BC to 2 nd Century AD):	
AUG-2018	III	History & Culture of South India (2 nd Century BC to 8 th Century AD):	
SEP-2018	IV	India from 3 rd century AD to 8 th century AD:	
OCT-2018	V	History and Culture of South India (9 th century AD to 13 th century AD):	

A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU
DEPARTMENT OF HISTORY
SEMESTER – III

CURRICULAR PLAN

Subject Code: HIS301C Title : MODERN INDIAN HISTORY & CULTURE (1764-1947 A. D)

Month	Unit No.	Topic to be covered	Remarks
JUN-18	I	Policies of Expansion	
JULY-18	II	Social, Religious & Self-Respect Movements	
AUG-2018	III	Causes for the growth of Nationalism	
SEP-2018	IV	Freedom Struggle from 1920 to 1947:	
OCT-2018	V	Muslim League & the Growth of Communalism	

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

SEMESTER – V

CURRICULAR PLAN

Subject Code: HIS501C Titles: Age of Rationalism and Humanism –The World Between
15th& 18th Century

Month	Unit No.	Topic to be covered	Remarks
JUN-18	I	Feudalism -Geographical Discoveries:	
JULY-18	II	The Renaissance Movement	
AUG-2018	III	Emergence of Nation States	
SEP-2018	IV	Age of Revolutions AMERICA Revolution	
OCT-2018	V	Age of Revolutions: The French Revolution	

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

SEMESTER – V

CURRICULAR PLAN

Subject Code: HIS502C Titles: History & Culture of Andhra Desa (from 12th to 19th
Century A.D)

Month	Unit No.	Topic to be covered	Remarks
JUN-18	I	Andhra during 12th& 13th Centuries A.D	
JULY-18	II	Andhra between 14th & 16th Centuries A.D	
AUG-2018	III	Andhra through 16th& 17th Centuries A.D	
SEP-2018	IV	The 18th& 19th Centuries in Andhra	
OCT-2018	V	Impact of Company Rule on Andhra	

DEPARTMENT OF HISTORY

**SEMESTER – II
CURRICULAR PLAN**

Subject Code: HIST21 Title: Medieval Indian history and Culture(1206 A.D to 1764 A.D)

Month	Unit No.	Topic to be covered	Remarks
NOV-18	I	Impact of Turkish Invasions	
DEC-18	II	Impact of Islam on Indian Society and Culture	
JAN-2019	III	Emergence of Mughal Empire	
FEB-2019	IV	Administration, Economy, Society	
MAR-2019	V	India under Colonial Hegemony	

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

DEPARTMENT OF HISTORY

**SEMESTER – IV
CURRICULAR PLAN**

Subject Code: HIST401 Title: HISTORY & CULTURE OF ANDHRA (FROM 1512 TO 1956 AD)

MONTH	UNIT NO.	TOPIC TO BE COVERED	REMARKS
NOV-18	I	1.1-Andhra through 16th& 19th Centuries AD:	
DEC-18	II	Andhra under British rule: Administration	
JAN-2019	III IV	Social Reform & New Literary Movements Freedom Movement in Andhra (1885-1947):	
FEB-2019	V	Movement for separate Andhra State	

**A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE,
VUYYURU
DEPARTMENT OF HISTORY
SEMESTER – IV
CURRICULAR PLAN**

Subject Code: HIS401C Title: HISTORY OF MODERN WORLD (From 15th Cent. AD to 1945 AD)

MONTH	UNIT NO.	TOPIC TO BE COVERED	REMARKS
NOV-18	I	Transformation from Medieval to Modern Era	
DEC-18	II	American Revolution (1776); French Revolution (1789)	
JAN-2019	III IV	Unification of Italy; Unification of Germany Communist Revolution in Russia	
FEB-2019	V	World War II: Causes Fascism & Nazism	

**A.G&S.G SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE,
VUYYURU
DEPARTMENT OF HISTORY
SEMESTER – VI
CURRICULAR PLAN**

Subject Code: HIS601GE Title: History of Modern Europe (from 19th Century to 1945 A.D)

MONTH	UNIT NO.	TOPIC TO BE COVERED	REMARKS
NOV-18	I	Industrial Revolution: Origin, Nature and Impact	
DEC-18	II	Unification Movements in Italy & Germany and their Impact.	
JAN-2019	III IV	Communist Revolution in Russia World War I:	
FEB-2019	V	World War II	

**A.G. & S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE(AUTONOMOUS)
VUYYURU - 521165 - (2018- 2019)**

**SEMESTER - I
DSC 3A -Business Economics-I**

IB.COM GENERAL

No. of Hours per week: 5

No. of Credits:

4Max.Marks:100

Unit	Learning Units	MONTHS
I	Introduction Meaning and Definitions of Business Economics - Nature and scope of Business Economics- Micro and Macro Economics and their differences.	JUN-18
II	Demand Analysis Meaning and Definition of Demand - Determinants of Demand -- Demand function – Law of demand- Demand Curve - Exceptions to Law of Demand.	JULY-18
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.	AUG-2018
IV	Cost and Revenue Analysis Classification of Costs – Total - Average – Marginal and Cost function – Long-run – Short-run – Total Revenue - Average revenue – Marginal Revenue.	SEP-2018
V	Break-Even Analysis Type of Costs – Fixed Cost – Semi-variable Cost – Variable Cost– Cost behaviour - Breakeven Analysis - Its Uses and limitations.	OCT-2018

A.G&S.G.SIDDHARTHA DEGREE COLLEGE OF ARTS AND SCIENCE(AUTONOMOUS)
VUYYURU – 521165

I BA PROGRAMME - ECONOMICS SYLLABUS FOR THE YEAR
(CBCS PATTERN)
FIRST YEAR BA – FIRST SEMESTER (CORE PAPER)

TITLE: MICRO ECONOMICS -1

No. of hours per week: 5

Credits: 4

Unit	Learning Units	MONTHS
I	Nature, Definition and Scope of economics –Wealth, welfare, Scarcity and modern definitions	JUN-18
II	Methodology in economics-Micro and Macro, Static and Dynamic analysis; Normative and Positive science, Inductive and Deductive methods ; Partial and General Equilibrium	JULY-18
III	Utility analysis :- Cardinal approach –The Law of Diminishing marginal utility-the Law of Equi-marginal utility-concept of consumer's surplus	AUG-2018
IV	Demand analysis – Law of Demand – Elasticity of Demand – Measurement of elasticity of demand-Price, Income and Cross elasticities of Demand	SEP-2018
V	Ordinal approaches; Indifference curve analysis – Properties of Indifference curves – Price or Budget line - Equilibrium of the consumer with the help of Indifferencecurves-samuelson'srevealedpreference theory.	OCT-2018

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

B. A. ECONOMICS

II Year B. A. Programme (UG) Courses – Under

CBCS Semester – III

Paper – III (Core Paper) (5Hours)

Macro Economics - National Income, Employment and Money

Unit	Learning Units	MONTHS
I	Meaning, definition of Macro Economics - Importance of Macro Economics- Difference between Micro and Macro Economics - Paradox of Macro Economics - Limitations	JUN-18
II	National Income - Definitions, Concepts of National Income - Measurement of National Income- Circular flow of Income in Two, Three and Four Sector Economy.	JULY-18
III	Classical theory of Employment - Say's Law of Markets.	AUG-2018
IV	Keynesian Theory of Employment - Consumption function – Investment Function - Marginal Efficiency of Capital (MEC)- Concepts of multiplier and accelerator	SEP-2018
V	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).	OCT-2018

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

Final year BA Economics Syllabus Semester Paper – V

ECONOMIC DEVELOPMENT AND INDIAN ECONOMY – Semester –V

Weekly 5 Hours,

Credits - 4

PAPER CODE: ECO-501

Unit	Learning Units	MONTHS
I	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.	JUN-18
II	Sustainable development - Balanced and unbalanced growth-choice of techniques Labour intensive and capital intensive methods.	JULY-18
III	. Basic features of the Indian Economy - Natural Resources - Important Demographic features- Concept of Population Dividend - Population Policy.	AUG-2018
IV	National Income in India - trends and composition-poverty, inequalities and Unemployment - Measures taken by the Government. - MGNREGS	SEP-2018
V	Economic reforms - liberalization, privatization and globalisation - concept of inclusive growth.	OCT-2018

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

Final year BA Economics Syllabus Paper – V

INDIAN AND ANDHRAPRADESH ECONOMY – Semester –V

Weekly 5 Hours,

Paper Code : ECO-502

Credits - 4

Semester-5

Indian and Andhra Pradesh Economy

Syllabus

Unit	Learning Units	MONTHS
I	Indian Agriculture - Importance of Agriculture in India - Agrarian structure and relations- Factors determining Productivity- Agricultural Infrastructure - Rural credit - Micro Finance - Self Help Groups (SHGs) - Agricultural Price policy- concept of Crop Insurance - Food Security.	JUN-18
II	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.	JULY-18
III	Disinvestment in India - FEMA - Foreign direct investment - Services Sector in India – Reforms in Banking and Insurance -, IT, Education and Health.	AUG-2018
IV	Planning in India Economy - Objectives of Five year plans - Review of Five year Plans - Current Five year plan- NITI Aayog	SEP-2018
V	Andhra Pradesh Economy - Population - GSDP - Sector Contribution and trends - IT – Small Scale Industry - SEZs.	OCT-2018

EVEN

Accredited with “A” Grade by NAAC, Bengaluru

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**

Unit	Learning Units	MONTHS
I	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	NOV-18
II	Analyse different types of Market structures - Perfect Competition - Price determination and equilibrium of firm and industry under perfect competition - Monopoly - Price determination - Price discrimination.	DEC-18
III	Monopolistic competition - price determination - Oligopoly - Kinked demand curve approach.	JAN-19
IV	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.	FEB-19
V	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	MAR-19

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

(AUTONOMOUS), VUYYURU – 521165

Accredited with “A” Grade by NAAC, Bengaluru

IB.COM GENERAL----- SEMESTER - II

DSC 3 B - Business Economics –II----- (CBE 203G)

No. of Hours per week: 5

Max.Marks:100

No. of Credits: 4

Unit	Learning Units	MONTHS
I	<u>Production and Costs</u> : 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.	NOV-18
II	<u>Market Structure-I</u> : 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.	DEC-18
III	<u>Market Structure-II</u> : 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.	JAN-19
IV	<u>National Income And Economic Systems</u> : National Income - Definition Measurement - GDP - Meaning Fiscal deficit - Economic systems - Socialism - Mixed Economic System - Free Market economy	FEB-19
V	<u>Structural Reforms</u> : 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.	MAR-19

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

(AUTONOMOUS), VUYYURU – 521165 -

Accredited with “A” Grade by NAAC, Bengaluru

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	Learning Units	MONTHS
I	Meaning and Definitions of Business Economics - Nature and scope of Business Economics- Micro and Macro Economics and their Interface.	NOV-18
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 :	DEC-18
III	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 :	JAN-19
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.	FEB-19
V	National Income And Economic Systems: National Income - Measurement - GDP -Growth Rates - Problems in Assessment - Economic Systems - Socialism - Mixed Economic System - Free Market Economy -	MAR-19

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

(AUTONOMOUS), VUYYURU – 521165 -

Accredited with “A” Grade by NAAC, Bengaluru

B. A. ECONOMICS

II Year B. A. Programme (UG) Courses – Under CBCS

Semester – IV

Paper – IV (Core Paper)

Banking and International Trade

Unit	Learning Units	MONTHS
I	Trade Cycles - meaning and definition - Phases of a Trade Cycle - Inflation - definition -types of inflation - causes and effects of inflation measures to control inflation.	NOV-18
II	Banking: Meaning and definition -Functions of Commercial Banks - Concept of Creditcreation-Functions of RBI - Recent developments in banking sectors.	DEC-18
III	Non-Bank Financial Institutions – Types of NBFIs - Factors contributing to the Growthf NBFIs —Money market – Defects of Indian money market	JAN-19
IV	Concepts of Shares-Debentures - Stock Market - Functions - Primary and Secondary Markets -SEBI - - Insurance - Life Insurance and General Insurance.	FEB-19
V	Macro Economic Policy - Fiscal, Monetary and Exchange rate policies Objectives and Significance - Importance of International Trade - Regional and InternationalTrade – Defining Balance of Trade and Balance of Payment.	MAR-19

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

VUYYURU

B. A. ECONOMICS

III Year B. A. Programme (UG) Courses – Under CBCS

Semester – VI

Paper – VII-(A) (Elective Paper VII-(A))

AGRICULTURAL ECONOMICS

Unit	Learning Units	MONTHS
I	Nature and Scope of Agricultural Economics. Factors affecting agricultural development: technological, institutional and general. Interdependence between agriculture and industry.	NOV-18
II	Concept of production function : input-output and product relationship in farm production.	DEC-18
III	Growth and productivity trends in Indian agriculture with special reference to Andhra Pradesh. Agrarian reforms and their role in economic development.	JAN-19
IV	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	FEB-19
V	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	MAR-19

**AG & SG Siddhartha Degree College of Arts & Science,
(Autonomous) Vuyyuru - 521 165.**

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF DEPARTMENT : POLITICAL SCIENCE

Academic Year : 2018-19

Name of lecturer :

Dr. G.Veeraraju

Paper Title :

Basic Concepts of Political Science

Semester: I

Class : I B.A

Paper Code : POL – 101C

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Jun-17	Unit-I - Nature scope and significance of Political science Unit-II- Social contract theories-Hobbs,lock and rousseau,evolution divine theories of origin of the state	Fullfilled	
Jul-17	Unit-III - Soverignty meaning ,definition,features,kinds and characters.Austrian Pluralistic theories	Fullfilled	
Aug-17	Unit-IV- Law ,Liberty,equality meaning definitions features,kinds,sources, of concepts	Fullfilled	
Sep-17	Unit-V - Rights and classification of rights, theories of rights ,leagal and natural rights.	Fullfilled	
Oct-17	Unit-V- Civil rights, Political rights fundamental rights	Fullfilled	

Lecturer

HOD

Principal

AG & SG Siddhartha Degree College of Arts & Science, (Autonomous) Vuyyuru - 521 165.

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of

the

Lecturer :

Paper

Title :

Dr.G.Veeraraju

INDIAN CONSTITUTION

SEMESTER

:

III

Class:

II B.A

Paper Code:

POL-
301C

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Jun-17	Unit-I- constitutional assembly-composition Indian constitution features	Fullfilled	
Jul-17	Unit-II- Preamble fundamental rights ,Fundamental duties, Directive principles of state policy,differences between fundamental rights and DPSP	Fullfilled	
Aug-17	Unit-III- Union Executive- President election method , P.m powers and functions,Parliament powers and functions,Union council of ministers,Parlimentarycommites	Fullfilled	
Sep-17	Unit-IV- Unitory and federal system , central and state relation Unit-V- Supreme court of India,powersfunctions,judicial review	Fullfilled	
Oct-17	Revision	Fullfilled	

Lecturer

HOD

Principal

AG & SG Siddhartha Degree College of Arts & Science, (Autonomous) Vuyyuru - 521 165.

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of

the

Lecturer :

Paper

Title :

Dr.G.Veeraraju

INDIAN POLITICAL THOUGHT

SEMESTER

:

V

Class: III B.A

Paper Code: POL-501C

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Jun-17	Unit-I- Manu varna system, Manu Dharma Veda -four vedas	Fullfilled	
Jul-17	Unit-II- koutilya theory of Saptanga,mandalikatheories,Koutilya political ideas of state kingship, Gandhi non-violence satyagrahatheroy of trusteeship	Fullfilled	
Aug-17	Unit-III- Joythiraophule social ideas,Nehru democratic socialism,Ambedkar social movements	Fullfilled	
Sep-17	Unit-IV- M.N.Roy radical humanism,Jayaprakashnarayanarevolution,sarvodaya	Fullfilled	
Oct-17	Revision	Fullied	

Lecturer

HOD

Principal

**AG & SG Siddhartha Degree College of Arts & Science,
(Autonomous) Vuyyuru - 521 165.**

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of

the

Lecturer :

Paper

Title :

Dr.G.Veeraraju

WESTERN POLITICAL THOUGHT

SEMESTER

:

V

Class: III B.A

Paper Code: POL-502C

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Jun-17	Unit-I- plato-Ideal state,theroy of justice,educationalsystem,philosphers of kings,communism	Fullfilled	
Jul-17	Unit-II- aristotle- ideal state,theroy of revolutions classification of governments,salves system	Fullfilled	
Aug-17	Unit-III-Machiavelli-Advice to the prince,politicalideas,hobbes,social contract theory , polictical ideas	Fullfilled	
Sep-17	Unit-III- John lock-social contract theory,political ideas , natural rights,rousseau,social contract theory general wing,popularsoveriginty	Fullfilled	
Oct-17	Unit-IV- Hegal civil society state karl marks theroy of communism	Fullfilled	

Lecturer

HOD

Principal

**AG & SG Siddhartha Degree College of Arts & Science,
(Autonomous) Vuyyuru - 521 165.**

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of

the

Lecturer :

Paper

Title :

Dr.G.Veeraraju

CONCEPTS OF THEORIES AND INSTITUTIONS

SEMESTER

:

II

Class:

I B.A

Paper Code:

POL-
201C

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Nov-17	Unit-I-Democracy forms,charactersticts , mertis&demertis of democracy Unit-II- Individualism,facism,marxism and gandhism,montesque's theory of seperation of powers	Fullfilled	
Dec-17	Unit-III- Powers and functions of legislature committee system	Fullfilled	
Jan-18	Unit-III- Presidential judiciary-Powers and functions	Fullfilled	
Feb-18	Unit-IV- Executive-types,powers and functions,judical review	Fullfilled	
Mar-18	Unit-V- Human rights,welfare state popular control	Fullied	

Lecturer

HOD

Principal

**AG & SG Siddhartha Degree College of Arts & Science,
(Autonomous) Vuyyuru - 521 165.**

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of
the

Dr.G.Veeraraju

Lecturer :

Paper

Title :

INDIAN POLITICAL PROCESS

SEMESTER

:

IV

Class:

II B.A

Paper Code:

POL-
401C

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Nov-17	Unit-I- Definition and role of political parties , characterstics of Indian political parties classification of Indian political parties	Fullfilled	
Dec-17	Unit-II- Election commision-structure , powers and functions, reforms	Fullfilled	
Jan-18	Unit-III- Indian national congress BJP,CPM(1), CPM, TDP , TRS, Akalidal, DMK, ADMK	Fullfilled	
Feb-18	Unit-IV- voting behaviour, caste, class & gender, religion politics	Fullfilled	
Mar-18	Unit-V- Coalition politics, national intergration, social movements	Fullied	

Lecturer

HOD

Principal

**AG & SG Siddhartha Degree College of Arts & Science,
(Autonomous) Vuyyuru - 521 165.**

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of

the

Lecturer :

Paper

Title :

Dr.G.Veeraraju

**LOCAL SELF GOVERNMENTS IN ANDHRA
PRADESH**

SEMESTER

:

VI

Class: III B.A

Paper Code:

**POL-
601GE**

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Nov-17	Unit-I- 1. Court provisions of local self governments 2. Recommendations of Balwanth Roy and ashokmehtha committees	Fullfilled	
Dec-17	Unit-II- 1. 73rd constitution, Ammendment act 2. 74th constitution Ammendment act	Fullfilled	
Jan-18	Unit-III- 1. Gram panchayt structure and function 2. mandalparishad and jillaparishad	Fullfilled	
Feb-18	Unit-IV- 1. Nagar panchayats structure 2. Municipalities structure and functions	Fullfilled	
Mar-18	Unit-V- 1. Emerging pattrens of leadership 2. problems of authority	Fullied	

Lecturer

HOD

Principal

**AG & SG Siddhartha Degree College of Arts & Science,
(Autonomous) Vuyyuru - 521 165.**

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of

the

Lecturer :

Paper

Title :

Dr.G.Veeraraju

INTERNATIONAL RELATIONS

SEMESTER

:

VI

Class: III B.A

Paper Code:

POL-602
CE

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Nov-17	Unit-I- 1. Meaning, nature, scope of International relations 2. Balance of power, collectively national Interns, Dipolamacy	Fullfilled	
Dec-17	Unit-II- Idealism- woodrowwillson classical realism- Morgenthau-neo-realism-kenneth waltz	Fullfilled	
Jan-18	Unit-III- 1. causes of first world war 2. causes of second world war	Fullfilled	
Feb-18	Unit-IV- 1. critisim of first cold war 2. Rise and fall of détente 3. Origin and end of second world war	Fullfilled	
Mar-18	Unit-V- The role of UNO in international peace, problems of third world- New economic order	Fullied	

Lecturer

HOD

Principal

**AG & SG Siddhartha Degree College of Arts & Science,
(Autonomous) Vuyyuru - 521 165.**

Krishna Dt., A.P. (An Autonomous College in the Jurisdiction of Krishana University)

Semesterwise Academic Plan & Fulfillment Record

NAME OF THE DEPARTMENT: POLITICAL SCIENCE

Academic

Year :

2018 - '19

Name of

the

Dr.G.Veeraraju

Lecturer :

Paper

Title :

INDIAN FOREIGN POLICY

SEMESTER

:

VI

Class: III B.A

Paper Code:

POL-603
CE

Month	Planned (Unit No. & Chapter Title)	Fulfilled (Unit No. & Chapter Title)	Remarks
Oct-15	Unit-I- 1. Determinants of Indian Foreign policy 2. Change in Indian Foreign policy	Fullfilled	
Nov-15	Unit-II- 1. India's role in non-alignment 2. Non-Alignment in contemporary world 3. India's role in UNO Peace keeping	Fullfilled	
Dec-15	Unit-III- 1. Indo-US relations pre cold war 2. Indo-China relations pre cold war	Fullfilled	
Jan-16	Unit-IV- 1. Indo-Pak relations 2. India's role in SAARE	Fullfilled	
Feb-16	Revision	Fullied	

Lecturer

HOD

Principal

TEACHING PLAN 2018-2019

ENVIRONMENTAL STUDIES COURSE CODE-ENS101
COURSE CODE: ENS 101 B.A,B.COM.,B.SC.,

MONT H	Unit	Learning Units
JUN- 18	I	Unit-I : Natural Resources: Definition, scope and importance. Need for public awareness. Brief description of; Forest resources: 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 exploitatio
JULY -18	II	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
AUG- 2018	III	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 revention of pollution Disaster management: Drought, floods and cyclones
SEP- 2018	IV	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
OCT- 2018	V	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.

ENTREPRENEURSHIP
COURSE CODE-ENP201

MONTH	Unit	Learning Units
NOV-18	I	Unit-I: Entrepreneurship: Entrepreneur Characteristics – Classification of Entrepreneurships – Incorporation of Business – Forms of Business organizations –Role of Entrepreneurship in economic development – Start-ups.
DEC-18	II	Idea Generation and Opportunity Assessment: Ideas in Entrepreneurships – Sources of New Ideas – Techniques for generating ideas – Opportunity Recognition – Steps in tapping opportunities
JAN-2019	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.
FEB-2019	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.
MAR-2019	V	Government Policy and Taxation Benefits: Government Policy for SSIs- tax Incentives and Concessions –Non-tax Concessions – Rehabilitation and Investment Allowances.

AG & SG SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE VUYYURU

(AUTONOMOUS)

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

DEPARTMENT OF COMMERCE

CURRICULAR PLAN: 2018-2019



SEMESTER – I**COURSE CODE: CACC -101G/C C****CURRICULAR PLAN:****Title of the paper: Financial Accounting – I**

MONTHS	Unit	Learning Units
JUN-18	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).
JULY-18	II	Unit –II: Subsidiary Books: Types of Subsidiary Books - Cash Book, Three-column Cash Book- Petty cash Book (Problems).
AUG-2018	III	Unit-III: Trail Balance and Rectification of Errors: Preparation of Trail balance - Errors – Meaning – Types of Errors – Rectification of Error
SEP-2018	IV	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
OCT-2018	V	Unit -V: Final Accounts: Preparation of Final Accounts: Trading account – Profit and Loss account – Balance Sheet – Final Accounts with adjustments (Problems).

SEMESTER – I

COURSE CODE:CBO -102G/C C

CURRICULAR PLAN:

Title of the paper: Business Organization

MONTHS	Unit	Learning Units
JUN-18	I	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.
JULY-18	II	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.
AUG-2018	III	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.
SEP-2018	IV	Unit-IV- Joint Stock Company Joint Stock Company – Meaning – Characteristics –Advantages – Kinds of Companies - Differences between Private Ltd and Public Ltd Companies.
OCT-2018	V	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.

SEMESTER – II

COURSE CODE: CACC -201G/C C

CURRICULAR PLAN:

Title of the paper: Financial Accounting – II

MONTHS	Unit	Learning Units
NOV-18	I	Unit-I: Depreciation Meaning of Depreciation - Methods of Depreciation: Straight line – Written down Value – Sum of the Years' Digits - Annuity and Depletion (Problems).
DEC-18	II	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).
JAN-2019	III	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).
FEB-2019	IV	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).
MAR-2019	V	Unit-V: Joint Venture Accounts Joint venture - Features - Differences between Joint-venture and consignment – Accounting procedure - Methods of keeping records (Problems).

SEMESTER – II

COURSE CODE: CBEN -202G C

CURRICULAR PLAN:

Title of the paper: Business Environment

MONTHS	Unit	Learning Units
NOV-18	I	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. .
DEC-18	II	Unit-II Economic Growth Meaning of Economic growth – Factors Influencing Development – Balanced Regional Development.
JAN-2019	III	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.
FEB-2019	IV	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.
MAR-2019	V	Unit-V Social, Political and Legal Environment Concept of Social Justice - Schemes - Political Stability - Leal Changes

COURSE CODE: CCA-301G/C C

Title of the paper: Corporate Accounting

MONTHS	Unit	Learning Units
JUN-18	I	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).
JULY-18	II	Unit -II: Issue and Redemption of Debentures - Employee Stock Options – Accounting Treatment for Convertible and Non-Convertible debentures (preparation of Journal and Ledger).
AUG-2018	III	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).
SEP-2018	IV	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).
OCT-2018	V	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.

Title of the paper: Business Statistics

MONTHS	Unit	Learning Units
JUN-18	I	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).
JULY-18	II	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.
AUG-2018	III	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.
SEP-2018	IV	Unit 4: Measures of Relation: Meaning and use of correlation – Types of correlation-Karl Pearson'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.
OCT-2018	V	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.

SEMESTER –III

COURSE CODE: CBT-303G C

CURRICULAR PLAN:

Title of the paper: Banking Theory & Practice

MONTHS	Unit	Learning Units
JUN-18	I	Unit-I: Introduction Meaning & Definition of Bank – Functions of Commercial Banks – Kinds of Banks -Central Banking Vs. Commercial Banking.
JULY-18	II	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.
AUG-2018	III	Unit-III: Banking Development Indigenous Banking - Cooperative Banks, Regional Rural banks, SIDBI, NABARD -EXIM Bank.
SEP-2018	IV	Unit-IV: Banker and Customer Meaning and Definition of Banker and customer – Types of Customers - General Relationship and Special Relationship between Banker and Customer - KYC Norms.
OCT-2018	V	Unit-V: Collecting Banker and Paying Banker Concepts - Duties & Responsibilities of Collecting Banker – Holder for Value – Holder in Due Course – Statutory Protection to Collecting Banker - Responsibilities of Paying Banker - Payment Gateways.

SEMESTER –IV

COURSE CODE: CASO-401G/C C

CURRICULAR PLAN:

Title of the paper: Accounting for Service Organizations

MONTHS	Unit	Learning Units
NOV-18	I	Unit-I: Non-Trading/ Service Organizations: Concept - Types of Service Organizations – Section (8) and other Provisions of Companies Act,2013.
DEC-18	II	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).
JAN-2019	III	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).
FEB-2019	IV	Unit -IV: Insurance Companies Life Insurance Companies –Preparation of Revenue Account, Profit and Loss Account, Balance Sheet (including problems) – LIC Act, 1956.
MAR-2019	V	Unit – V: General Insurance Principles – Preparation of final accounts – with special reference to fire and marine insurance (including problems) – GIC Act, 1972.

SEMESTER –IV

CURRICULAR PLAN:

COURSE CODE: CBL-402G/C C

Title of the paper: Business Laws

MONTHS	Unit	Learning Units
NOV-18	I	Unit-1 Contract Meaning and Definition of Contract-Essential elements of valid Contract -Valid, Void and Voidable Contracts - Indian Contract Act, 1872.
DEC-18	II	Unit-2 Offer and Acceptance Definition of Valid Offer, Acceptance and Consideration -Essential elements of a Valid Offer, Acceptance and Consideration.
JAN-2019	III	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.
FEB-2019	IV	Unit-4 Sale of Goods Act 1930 Contract of sale – Sale and agreement to sell – Implied conditions and warranties –Rights of unpaid vendor
MAR-2019	V	Unit-5: Cyber Laws Cyber Law and Contract Procedures - Digital Signature - Safety Mechanisms.

SEMESTER –IV

COURSE CODE: CIT-403G C

CURRICULAR PLAN:

Title of the paper: Income Tax

MONTHS	Unit	Learning Units
NOV-18	I	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).
DEC-18	II	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).
JAN-2019	III	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).
FEB-2019	IV	Unit-IV Income from Capital Gains – Income from other sources – (from Individual point of view) -chargeability – and assessment (including problems).
MAR-2019	V	Unit-V: Computation of total income of an individual – Deductions under section - 80 (including problems).

SEMESTER –V
COURSE CODE: Com- C A-502

CURRICULAR PLAN:

Title of the paper: Cost Accounting

MONTHS	Unit	Learning Units
JUN-18	I	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.
JULY-18	II	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).
AUG-2018	III	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.
SEP-2018	IV	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).
OCT-2018	V	Unit -V: Costing Techniques: Marginal Costing – Standard costing – Variance Analysis (including problems).

SEMESTER –V**COURSE CODE: Com-I T-503****CURRICULAR PLAN:****Title of the paper: Indirect Taxes**

MONTHS	Unit	Learning Units
JUN-18	I	Unit –I: Central Sales Tax/G.S.T (Goods And Services Tax): Objectives of CST Act, Dealer-Business-Sales-Goods-Declared goods, Turnover - Sale Price - Sales Exempt from Central Sales Tax, Interstate and Intra state sale, sales in the course of imports and exports, registration under CST Act.
JULY-18	II	Unit- II: Customs Act: Types of Custom Duties- Valuation for Customs Duty-Tariff Value-Customs Value- Methods of Valuation for Customs - Problems on Custom Duty Assessment.
AUG-2018	III	Unit –III: Central Excise: Procedures relating to Levy, Valuation and Collection of Duty, Types of Excise Duties- Cenvat Credit- Classification of Excisable Goods- Valuation of Excisable Goods-Central Excise Procedures (including problems).
SEP-2018	IV	Unit –IV: Service Tax: Features of Service Tax- Levy and Collection - Service Tax Administration-Exemptions from Service Tax - Taxable Services-Determination of Service Tax Liability (including problems)
OCT-2018	V	Unit -V: VAT: Concept and Principles - Calculation of VAT Liability including input Tax Credits, Small Dealers and Composition Scheme, VAT Procedures

SEMESTER –V

COURSE CODE: Com-C G-504

CURRICULAR PLAN:

Title of the paper: Commercial Geography

MONTHS	Unit	Learning Units
JUN-18	I	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.
JULY-18	II	Unit -II: India – Agriculture: Land Use - Soils - Major crops – Food and Non-food Crops – Importance of Agriculture – Problems in Agriculture – Agriculture Development.
AUG-2018	III	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.
SEP-2018	IV	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.
OCT-2018	V	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.

SEMESTER –V

COURSE CODE: Com –C B 505(E)

CURRICULAR PLAN:

Title of the paper: Central Banking

MONTHS	Unit	Learning Units
JUN-18	I	Unit-I: Introduction: Evolution and Functions of Central Bank - Development of Central Banks in Developed and Developing countries - Trends in Central Bank Functions.
JULY-18	II	Unit-II: Central banking in India: Reserve Bank of India - Constitution and Governance, Recent Developments, RBI Act. - Interface between RBI and Banks.
AUG-2018	III	Unit-III: Monetary and Credit Policies: Monetary policy statements of RBI - CRR - SLR – Repo Rates - Reverse Repo Rates - Currency in circulation - Credit control measures
SEP-2018	IV	Unit-IV: Inflation and price control by RBI: Intervention mechanisms - Exchange rate stability -Rupee value - Controlling measures
OCT-2018	V	Unit-V: Supervision and Regulation: Supervision of Banks - Basle Norms, Prudential Norms, Effect of liberalization and Globalization - Checking of money laundering and frauds.

SEMESTER –V**COURSE CODE:Com-R F C-506(E)****CURRICULAR PLAN:****Title of the paper: Rural and Farm Credit**

MONTHS	Unit	Learning Units
JUN-18	I	Unit-I: Rural Credit: Objectives and Significance of Rural credit - Classification of rural credit -General Credit Card (GCC) – Financial Inclusion - Rupay Card.
JULY-18	II	Unit-II: Rural Credit Agencies: Institutional and Non-institutional Agencies for financing agriculture and Rural development - Self-Help Groups (SHG) - Financing for Rural Industries.
AUG-2018	III	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.
SEP-2018	IV	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.
OCT-2018	V	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..

SEMESTER –VI

COURSE CODE: Com- Tally -601(U)

CURRICULAR PLAN:

Title of the paper: Tally

MONTHS	Unit	Learning Units
JAN-2019	I	Unit-I: Fundamentals of Tally.ERP 9: Features - Start Tally, Create and Alter a Company - Creating Single Group/Multiple Groups, Display, Deleting Groups - Ledger: Creating Single Ledger / Multiple Ledgers. .
FEB-2019	II	Unit-II: Create Accounting Masters in Tally.ERP 9 - Chart of Accounts - Creating Single and Multiple charts, Displaying and Altering charts – Walkthrough for creating Chart of Accounts – Back-up of data and Restoring - Tally Audit Features
MAR-2019	III	Unit-III: Creating Inventory Master: Creating Stock Groups, Displaying, Deleting, Altering - Creating Stock Unit of Measure, Displaying and Deleting Unit Measures - Creating, Altering, Displaying, Deleting Stock items - Generating Reports.

SEMESTER –VICOURSE CODE:**CEM -601G/C****CURRICULAR PLAN:****Title of the paper: Event Management**

MONTHS	Unit	Learning Units
JAN-2019	I	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.
FEB-2019	II	Unit-II: Outdoor Events: Logistics, Types of Outdoor events, Risk management - Health and safety, Marketing and sponsorship, HR Management, Programming and Entertainment.
MAR-2019	III	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.

SEMESTER –VI
COURSE CODE: CM 602GE G/C

CURRICULAR PLAN:

Title of the paper: Marketing

MONTHS	Unit	Learning Units
NOV-18	I	Unit-I: Introduction: Concepts of Marketing: Product Concept – Selling Concept - Societal Marketing Concept – Marketing Mix - 4 P's of Marketing – Marketing Environment.
DEC-18	II	Unit-II: Consumer Markets and Buyer Behaviour: Buying Decision Process – Stages – Buying Behaviour – Market Segmentation – Selecting Segments – Advantages of Segmentation.
JAN-2019	III	Unit-III: Product Management: Product Life Cycle - New products, Product mix and Product line decisions - Design, Branding, Packaging and Labeling.
FEB-2019	IV	Unit-IV: Pricing Decision: Factors influencing price determination, Pricing strategies: Skimming and Penetration pricing
MAR-2019	V	Unit-V: Promotion and Distribution: Promotion Mix - Advertising - Publicity – Public relations - Personal selling and Direct marketing - Distribution Channels – Online marketing- Global marketing.

SEMESTER –VI

CURRICULAR PLAN:

COURSE CODE: CAU-603GE G/C

Title of the paper: Auditing

MONTHS	Unit	Learning Units
NOV-18	I	Unit-I: Auditing: Meaning – Objectives – Importance of Auditing – Auditing as a Vigil Mechanism – Role of Auditor in checking corporate frauds.
DEC-18	II	Unit-II: Types of Audit: Based on Ownership and time - Independent, Financial, Internal, Cost, Tax, Government, Secretarial audits.
JAN-2019	III	Unit-III: Planning of Audit: Steps to be taken at the commencement of a new audit - Audit programme - Audit note book - Internal check, internal audit and internal control.
FEB-2019	IV	Unit-IV: Vouching and Investigation: Vouching of cash and trading transactions - Investigation, Auditing vs. Investigation
MAR-2019	V	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.

SEMESTER –VI**COURSE CODE: CMA 604GE G/C****CURRICULAR PLAN:****Title of the paper: Management Accounting**

MONTHS	Unit	Learning Units
NOV-18	I	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).
DEC-18	II	Unit–II: Ratio Analysis: Classification, Importance and limitations - Analysis and interpretation of Accounting ratios - Liquidity, profitability, activity and solvency ratios (including problems).
JAN-2019	III	Unit–III: Fund Flow Statement: Concept of fund: Preparation of funds flow statement. Uses and limitations of funds flow analysis (including problems).
FEB-2019	IV	Unit–IV: Cash Flow Statement: Concept of cash flow – Preparation of cash flow statement – Uses and limitations of cash flow analysis (including problems).
MAR-2019	V	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).

SEMESTER –VI
COURSE CODE: CFS 605 CE G

CURRICULAR PLAN:

Title of the paper: Financial Services

MONTHS	Unit	Learning Units
NOV-18	I	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 .
DEC-18	II	Unit-II: Merchant Banking Services: Scope and importance of merchant banking services - Venture Capital - Securitization - Demat services - Commercial Papers – Treasury bills
JAN-2019	III	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.
FEB-2019	IV	Unit-IV: Credit Rating: Purpose – Types – Credit Rating Symbols – Agencies: CRISIL and CARE – Equity Assessment vs. Grading – Mutual funds.
MAR-2019	V	Unit-V: Other Financial Services: Factoring and Forfaeiting - Procedural and financial aspects – Installment System - Credit Cards - Central Depository Systems: NSDL, CSDL.

SEMESTER –VI**COURSE CODE:CFMS 606 CE G****CURRICULAR PLAN:****Title of the paper: Marketing of Financial Services**

MONTHS	Unit	Learning Units
NOV-18	I	Unit-I: Difference between Goods and Services: Managing Service Counters – Integrated Service Management – Service Elements.
DEC-18	II	Unit-II: Constructing Service Environment – Managing People for service Advantage – Service Quality and Productivity – Customer Loyalty.
JAN-2019	III	Unit-III: Pricing and Promotion Strategies: Pricing strategies – Promotion strategies – B2B Marketing – Marketing Planning and Control for services.
FEB-2019	IV	Unit-IV: Distributing Services: Cost and Revenue Management – Approaches for providing services - Channels for Service provision – Designing and managing Service Processes.
MAR-2019	V	Unit-V: Retail Financial Services - Investment services – Insurance services - Credit Services - Institutional Financial Services - Marketing practices in select Financial Service Firms

Teaching Plan
Academic Year-2018-19

Semester -I

Paper Title : Differential Equations

Class: I B.Sc

Course Code: MAT – 101

Month	Planned (Unit No. & Chapter Title)	Remarks
Jun-18	Unit III: Higher Order L.D.Equations-I, Solution of Homogeneous L.D.Equations & Non Homogeneous L.D.Equations with constant coefficients (Method I & II).	
Jul-18	Unit IV: Higher Order L.D.Equations -II,Solution of Non Homogeneous L.D.Equations with constant coefficients (Method III,IV & V).	
Aug-18	Unit V: Higher Order L.D.Equations - III, M.V.P Method,The Cauchy-Euler Equation.	
Sep-18	Unit I: Differential Equations Of First Order & First Degree, L.D.Equations, D.E reducible to Linear form ,Exact D.E.,Integrating factors,Change of Variables.	
Oct-18	Unit II: Differential Equations of the First Order butnot of the First Degree, Orthogonal Trajectories, Equations Solvable for p,y & x,Equations of the First Degree In x & y-Clairaut's Equation.	

Semester - III

Paper Title : Abstract Algebra and Real Analysis -I

Class - II B,Sc

Course code - MAT-301C

Month	Planned (Unit No. & Chapter Title)	Remarks
Jun-18	Unit-I:Groups:Binary operation,Semi group,group defination and elementary properties,finite and infinite groups-examples order of a group,composition tables with examples	
Jul-18	Unit-II:Subgroups:multiplication of two subgrupus,union and intersection of two subgroups,Lagrange's theorem.	
Aug-18	Unit-III: Normal Subgroups, proper and improper normal subgroups, intersection of two normal sub groups,subgroup of index 2 is a normal subgroup,quotient group.	
Sep-18	Unit-IV:Real Numbers,Real Sequencesbounded sequences,the cauchy's criterion,bolzano-weierstrass theorem,cauchey'sgeneral principle of convergence theorem	
Oct-18	Unit-V:Infinite Series:p-test,cauchy's nth Root test,D'Alembert's Ratio test ,Leibnitz test	

Semester-V

Paper Title : Ring Theory And Vector Calculus

Class: III B.SC

Course Code: MAT-501

Month	Planned (Unit No. & Chapter Title)	Remarks
Jun-18	Unit-I:Rings-I: Ring, Boolean ring, Characteristic of a ring, Integral domain, Field, Ideals	
Jul-18	Unit-II-Rings-II: Homomorphism, Kernel of homomorphism, Fundamental theorem of homomorphism	
Aug-18	Unit-III: Vector Differentiation : Gradient, Divergent, Curl Operators of Vectors	
Sep-18	Unit-IV: Vector Integration: Line Integral, Surface Integral, Volume Integral with examples	
Oct-18	Unit-V: Vector Integration Applications: Theorems of Gauss and Stokes, Green's theorem in plane and applications of these theorems	

Semester -V

Paper Title : Linear Algebra

Class: III B.Sc

Course Code: MAT - 502

Month	Planned (Unit No. & Chapter Title)	Remarks
Jun-18	Unit IV: Matrices, Linear System of Equations	
Jul-18	Unit IV: Characteristic roots and vectors of a square matrices. Unit V: Inner Product Spaces.	
Aug-18	Unit I: Vector Space I, Vector Subspaces, LD and LID Unit II: Vector Space II,	
Sep-18	Unit II: Vector Space II, Basis and Dimensions Unit III: Linear Transformations	
Oct-18	Unit III: Linear Transformations, Rank Nullity theorem	

Semester-II

Paper Title :

Solid Geometry

Class: I B.Sc

Course Code: MAT - 201

Month	Planned (Unit No. & Chapter Title)	Remarks
Nov-18	Unit - I : The Plane, Equation of Plane in terms its Intercepts on the Axis , Equation of the Plane through the Given Points, Bisectors of angles between Two Points, Pair of Planes.	
Dec-18	Unit - II : The Line, Equation of a Line ,Angle Between a Line & a Plane ,Image Point, Image Line, Shortest Distance Between Two Lines.	
Jan-19	Unit - III : The Sphere , Definition & Equation of the Sphere ,Equation of the Sphere through four given points, Intersection of two Sphere, Equation of a Circle ,Sphere through a given Circle, Intersection of a Sphere & a Line ,Tangent Plane, Plane of a contact, Polar plane ,pole of a plane, Conjugate Points, Conjugate Planes.	
Feb-19	Unit - IV : The Sphere & Cones, Angle of Intersection of two Spheres, Coaxial System of Spheres, Definition of a Cone ,Vertex, Guiding Curve, Generators, Equation of a cone with a given vertex & Guiding Curve, Enveloping Cone of a Sphere, Condition that a cone may have three mutually perpendicular generators.	
Mar-19	Unit - V : Cones & Cylinders, Reciprocal Cones, Right Circular Cone, Definition & Equation of a Cylinder, Enveloping Cylinder, Right Circular Cylinder.	

Semester-IV

Paper Title : Abstract Algebra and Real Analysis-II

Class: II.BSC

Course Code: MAT-401C

Month	Planned (Unit No. & Chapter Title)	Remarks
Nov-18	Unit-I: Homomorphism, Kernel of Homomorphism, fundamental theorem on Homomorphism.	
Dec-18	Unit-II: Permutations And Cyclic Group, Inverse of a permutation, even & odd permutations, Cayley's theorem.	
Jan-19	Unit-III: Infinite Series: p-test, Cauchy's nth Root test, D'Alembert's Ratio test ,Leibnitz test	
Feb-19	Unit-IV: Differentiation And Mean Value Theorem, Rolle's Theorem, Cauchy's Mean Value Theorem.	
Mar-19	Unit-V: Riemann Integration, Darboux Theorem, Fundamental Theorem of integral calculus.	

Semester :VI

Paper Title : Numerical Analysis

Class: III B.Sc

Course Code: MAT - 601

Month	Planned (Unit No. & Chapter Title)	Remarks
Nov-18	Unit - I : Errors and their accuracy	
Dec-18	Unit - II : Applications of Algebraic and Transcendental equations, Regula - Falsi and Newton - Raphson Methods	
Jan-19	Unit - III : Finite Differences and Interpolation with equal intervals	
Feb-19	Unit - IV : Central difference interpolation with Gauss's, Stirling's, Bessel's and Everett's formulae	
Mar-19	Unit - IV : Interpolation with Unequal intervals, Newton's, Lagrange's interpolation Formulae	

Semester-VI

Paper Title : Integral Transforms

Class : III B.Sc

Course Code: MAT - 602

Month	Planned (Unit No. & Chapter Title)	Remarks
Nov-18	Unit - I : Applications of Laplace Transforms of D.E with Constant coefficients	
Dec-18	Unit - I : Applications of Laplace Transforms of solutions D.E with variable coefficients Unit - II Applications of Laplace Transforms of solutions D.E - II	
Jan-19	Unit - II Applications of Laplace Transforms of solutions D.E - II Unit - III : Applications of Laplace Transforms to Integral Equations	
Feb-19	Unit - IV : Fourier Series - I	
Mar-19	Unit - IV : Fourier Series - II	

Name of the Lecturer :

Paper

Title :

ADVANCED NUMERICAL ANALYSIS

IV
III.BSC
MAT-
603CE

Month	Planned (Unit No. & Chapter Title)	Remarks
Nov-18	Unit-IV: Gaussian Elimination method, Gauss Jordan method, Iterative method.	
Dec-18	Unit-V: Numerical solution of ordinary differential equation, Euler's method, Runge-Kutta method.	
Jan-19	Unit-I: Curve Fitting, Polynomial fitting, Curve fitting by a power function and exponential function.	
Feb-19	Unit-II: Numerical Differentiation, Newton's forward difference formula, Derivatives using central difference formula	
Mar-19	Unit-III: Numerical Integration, Trapezoidal rule, Boole's rule and Weddle's rule.	

DEPARTMENT OF PHYSICS

SEMESTER – I

2018-2019

Teaching Plan

Subject Code : **PHY 101C**

Title: **Mechanics & properties of matter**

Month	Unit No.	Topic to be covered
June-‘18	I	1. Vector analysis :- scalar and vector fields, gradient of a scalar field and its physical significance .divergence and curl of vector field with derivations, gauss theorem,stokes theorem
July-‘18	II	Mechanics of Particles Review of Newton’s Laws of Motion, Motion of variable mass system, Motion of a rocket, Multistage rocket, Concept of impact parameter, scattering cross-section.
Aug-‘18	III	4. Mechanics of Rigid bodies Def of Rigid body, rotational kinematic relations, Equation of motion for a rotating body, Angular momentum and Moment of inertia tensor, Euler equations, Precession of a spinning top, Gyroscope, Precession of the equinoxes .
Sept-‘18	IV	Central forces :- Def and examples, conservative nature of central forces, conservative force as negative gradient of potential energy, keplers laws, derivation, motion of satellites .
Oct-‘18	V	Special theory of relativity :- Galilean relativity, absolute frames, michelson morely expt, posulates of special theory of relativity, lorentz transformations, length contraction, mass energy relation .

SEMESTER – II
2018-2019

Teaching Plan

Subject Code : **PHY 201C**

Title: **WAVES AND OSCILLATIONS**

Month	Unit No.	Topic to be covered
Nov -'18	I	<i>SIMPLE HARMONIC MOTION :SHM and solution of differential equation, characteristics of shm, torsional pendulum, measurement of rigidity modulus, combination of two mutually perpendicular shm vibrations of same frequency, lissajous figures .</i>
Dec-'18	II	Damped and forced oscillations : damped harmonic oscillator, solution of differential equation of oscillator, energy considerations, logarithmic decrement, quality factor, amplitude resonance, velocity resonance .
Jan-'19	III	Complex vibrations :- fourier theorem, forier coefficients, sqaure wave, triangular wave, saw tooth wave .
Feb-'19	IV	Vibrating strings :- transverse nature of propagation along a stretched string, solution of wave euation, modes of vibration of stretched string, overtones, tranverse impedance .
Mar-'19	V	Ultrasonics :- properties of ultrasonics, piezoelectric method, magnetostriction method, wavelength of ultra sonics, applications of ultrasonicss .

SEMESTER – III

Teaching Plan

Subject Code : **PHY-301C**

Title: WAVE OPTICS

Month	Unit No.	Topic to be covered
Jun-‘18	I	1. ABERRATIONS : Monochromatic aberrations, spherical aberrations, coma, astigmatism, curvature, distortion, chromatic aberration , achromatic doublet, achromatism for two lenses in contact, separated by a distance .
July-‘18	II	2. Interference : Division of wavefront : Principle of superposition, interference of light by division of wave front and amplitude, Lloyd’s single mirror, thin films, wedge shaped films, newton’s rings in reflected rings, Michelson interferometer and determination of wave length. Stokes law .
Aug-‘18	III	3. Interference : Division of amplitude : Oblique incidence due to reflected and transmitted light, colors in thin films, non reflecting films, wedge shaped films, newton’s rings in reflected rings, Michelson interferometer and determination of wave length.
Sept-‘18	IV	4 Diffraction : Introduction, distinction between Fresnel and Fraunhofer diffraction, Fraunhofer diffraction – Diffraction due to single slit , 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..
	V	5.Polarization : Polarized light, Brewster’s law, Malus law, Nicol prism, quarter wave plate, half wave plate, Babinet’s compensator . Lasers : introduction, spontaneous emission, stimulated emission. Population Inversion, Laser principle-Einstein coefficients-Types of lasers-He-Ne laser, Ruby laser- Applications of lasers. Holography: Basic principle of holography,

		Applications of holography
Oct-'18		

SEMESTER – IV

2018-2019

TEACHING PLAN

Subject Code: **PHY-401C**

Title: **Thermodynamics & Radiation physics**

Month	Unit No.	Topic to be covered
Nov -'18	I	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.
Dec-'18	II	2. Thermodynamics Introduction- Isothermal and adiabatic process-Reversible and irreversible processes-Carnot's engine and its efficiency-Carnot's theorem-Second law of thermodynamics. Kelvin's and Clausius 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.
Jan-'19	III	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.

Feb-‘19	IV	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.
Mar-‘19	V	5. Quantum theory of radiation Blackbody-Ferry’s black body-distribution of energy in the spectrum of black body-Wein’s displacement law, Wein’s law, Rayleigh-Jean’s law-Quantum theory of radiation-Planck’s law-Measurement of radiation-Types of pyrometers –Angstrom pyroheliometer-determination of solar constant, Temperature of Sun.

SEMESTER – V

2018-2019

Teaching plan

Subject Code : **PHY 501C**

Title : **Electricity, Magnetism and Electronics**

June-‘18	I	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 .

July-'18	II	<p>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.</p> <p>4.Electromagneticinduction 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.</p>
Aug-'18	III	<p>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.</p> <p>6.Maxwell's equations Idea of displacement current- Maxwell's equations (integral and differential forms) (no derivation) Maxwell's wave equation(with derivation), Transverse nature of electromagnetic wave. Pointing Vector (statement and proof) production of electromagnetic wave Hertz experiment.</p>
Sept-'18	IV	<p>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.</p>
Oct-'18	V	<p>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.</p>

SEMESTER – V

2018-2019 TEACHING PLAN

Subject Code: PHY- 502C

Title : MODERN PHYSICS

June-‘18	I	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 . Quantum theory of Raman effect. Experimental arrangement – Applications of Raman effect.
July-‘18	II	2. Matter waves & Uncertainty Principle Matter waves, de Broglie’s hypothesis – wavelength of matter waves, Properties of matter waves – Davisson and Germer experiment, uses of electron diffraction-Phase velocity and Group velocity (definitions only)- relation between phase velocity and Group velocity–Heisenberg’s uncertainty principle for position and momentum (x and p) & energy and time (E and t). Experiment verification.
Aug-‘18	III	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.
Sept-‘18	IV	4.General properties of Nuclei Basic ideas of nucleus – size,mass,charge density(matter energy), binding energy,angular momentum, 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- Nuttall law. β – decay, β ray continuous and discrete spectrum, neutrino hypothesis.

Oct-'18	V	<p>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.</p> <p>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.</p>
---------	---	---

SEMESTER – VI

2018-2019 TEACHING PLAN

Subject Code: **PHY 601 GE(c)** Title : **ANALOG AND DIGITAL ELECTRONICS**

Nov -'18	I	<p>1. FET Construction ,Working ,Characteristics and uses; MOSEFT-enhancement MOSEFT,Depletion MOSEFT, Construction and Working, drain Characteristics of MOSEFT, applications of MOSEFT.</p> <p>2. Photo electric devices: structure and operation, Characteristics and applications of LED and LCD.</p>
Dec-'18	II	<p>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.</p>
Jan-'19	III	<p>4.Applications of OP-amp: OP-amp as voltage amplifier, inverting amplifier, Non- inverting amplifier, Voltage follower, summing amplifier, difference amplifier, comparator, Integrator, Differentiator.</p>
Feb-'19	IV	<p>5. Data processing circuits: Multiplexers, De – Multiplexers, encoders, decoders, Characteristics</p> <p>6. For Digital IC's –RTL, DTL,TTL, CMOS</p>

		(NAND&NOR Gates
Mar-'19	V	7 .Sequential digital circuits: Flip-flops, RS, clocked SR, JK, D, T, Master-Slave Flip-flops . 8. Counters: Asynchronous counters-modulo 4 counter-modulo 16 ripple counter, Decade counter, Synchronous counter.

SEMESTER – VI

2018-2019 TEACHING PLAN

Subject Code: **PHY 602 CE(1)**

Title : **INTRODUCTION TO MICROPROCESSOR AND MICROCONTROLLER**

Nov -'18	I	MICROPROCESSOR: General architecture of microprocessor, architecture of 8085 microprocessor, 8085 pin diagram, Concept of data bus, address bus, and control bus, 8085 programming instruction classification.
Dec-'18	II	8085 Interfacing Memory Introduction-Memory structure and its requirements-basic concepts in memory interfacing. Address Decoding-Interfacing circuit. Port-mapped I/O or Direct I/O interface (8-bit Addressing)-Memory Indirect I/O mapped Interfaces (16-bit Addressing)-Port mapped versus Memory mapped I/O. I/O Device Interfacing.
Jan-'19	III	8085 Microprocessor Applications Introduction-Programmed data transfer scheme. Direct Memory Access (DMA) –Types. 8255A PPI-Block diagram. 8259A PIC-Pin diagram and functional description. 8257 Programmable DMA controller-Block diagram and Pin description.
Feb-'19	IV	8051 Architecture-I: Types of microcontrollers- microcontroller architecture, CISC, RISC, operation of microcontroller, basic building blocks of microcontroller, comparison of microcontroller and microprocessor- block diagram of 8051-I/o pins and ports. Microcontroller Resources.

Mar-‘19	V	8051 Architecture-II: 8051 Flag bits and PSW register and DPTR register- Memory Organization- Special function registers- PSW register-Counters and Timers-Serial I/O-8051 Microcontroller Interrupts.
---------	---	---

SEMESTER – VI

2018-2019 TEACHING PLAN

Subject Code: **PHY 603C**

Title: **Computational Methods and Programming**

Nov -‘18	I	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
Dec-‘18	II	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.
Jan-‘19	III	5.Arrays: One dimensional and two dimensional arrays – Initialization –Type declaration – Inputting and outputting of data for arrays – Programs of matrices addition, subtraction and multiplication. 6.User defined functions: The form of C functions – Return values and their types – Calling a function – Category of functions. Nesting of functions. Recursion. ANSI C functions – Function declaration. Scope and life of variables in functions.
Feb-‘19		

	IV	<p>7.Linear and Non-Linear equations: Solution of Algebra and transcendental equations – Bisection, Falsi position and Newton – Rhapson methods – Basic principles – Formulae – algorithms.</p> <p>8.Simultaneous equations: Solutions of simultaneous linear equations – Guass elimination and Gauss seidel iterative methods – Basic principles – Formulae- Algorithms</p>
Mar-'19	V	<p>Interpolations : Concept of linear interpolation – Finite differences – Newton's and Lagrange's interpolation formulae – principles and Algorithms.</p> <p>9.Numerical differentiation and integration : Numerical differentiation – algorithm for evaluation of first order derivatives using formulae based on Taylor's series – Numerical integration – Trapezodal and Simpson's 1/3 rule – Algorithms.</p>

SEMESTER – VI

2018-2019 TEACHING PLAN

Subject Code: **PHY 604 CE**

Title: : **Electronic Instrumentation**

Nov -'18	I	<p>1. Basic of measurements: Instruments accuracy, precision, sensitivity- errors in measurements- Basic meter movement- PMMC (Permanent Magnetic Moving Coil).</p> <p>2. Measurement of dc current: DC ammeter-multi range ammeters-the ARYTON Shunt or universal Shunt.</p> <p>3. Measurement of dc voltage: DC Voltmeter – Multi Range Voltmeter- Voltmeter sensitivity.</p>
Dec-'18	II	<p>4.Analog Multimeter: Multimeter - as dc ammeter-as dc voltmeter-as ac voltmeter- as ohm meter-Multimeter operating instructions.</p> <p>5.Digital instruments: Principle and working of digital instruments, characteristics of a digital meter, working principle of digital voltmeter.</p>
Jan-'19	III	<p>6.CRO: Block diagram of basic CRO, construction of CRT, electron gun, electrostatic focusing and acceleration (only explanation), time base operation, synchronization, front panel controls, specifications of CRO and their</p>

		<p>significance.</p> <p>7.Applications CRO: Measurement of voltage-dc and ac, frequency, time period. Special features of dual trace CRO. Digital storage oscilloscope: block diagram and principle of working.</p>
Feb-‘19	IV	<p>8.Diode as Rectifier – Half wave rectifier, Full wave rectifier – construction, working and efficiency. (no derivation)</p> <p>9.Feedback in Electronic circuits – Positive and Negative feedback, expressions for gains, advantages of negative feedback, Oscillators, Barkhausen criteria, RC phase shift oscillator (no derivation)</p>
Mar-‘19	V	<p>10.Signal Generators: Block diagram, working and specifications of low frequency signal generators, pulse generator, function generator .</p> <p>11.Bridges: Measurement of resistance by Wheat stone’s Bridge- Sensitivity of Wheat stone’s Bridge- Applications of Wheat stone’s Bridge- Limitations of Wheat stone’s Bridge.</p>

A.G&S.G.S DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU
DEPARTMENT OF ENGLISH
SEMESTER – I
2018-19 CURRICULAR PLAN

Subject Code: **CHE101** Title: Inorganic and Organic chemistry

Month	Unit No.	Topic to be covered
June -18	I	P- block elements-I
July-18	II	P- block elements-II& Organo metallic chemistry
Aug-18	III	Structural theory in organic chemistry
Sep-18	IV	Acyclic hydrocarbons & Alicyclic hydrocarbons
Oct-18	V	Benzene and its reactivity

SEMESTER – II
2018-19 CURRICULAR PLAN

Subject Code: **CHE -201** Title: **Physical and General chemistry**

Month	Unit No.	Topic to be covered
Nov-18	I	Solid state
Dec-18	II	Gaseous state & Liquid state
Jan-19	III	Sollutions
Feb-‘19	IV	Surface chemistry & Chemical bonding
Mar-19	V	Stereochemistry

SEMESTER – III

2018-19 CURRICULAR PLAN

Subject Code: **CHE -301**

Title :Inorganic and organic chemistry

Month	Unit No.	Topic to be covered
June -18	I	d-block elements &Theories of bonding in metals
July-18	II	Metal carbonyls & f-block elements
Aug-18	III	Halogen and Hydroxy compounds
Sep-18	IV	Carbonyl compounds
Oct-18	V	Carboxylic acids and derivatives

SEMESTER – IV

2018-19 CURRICULAR PLAN

Subject Code: **CHE- 401**

Title : Spectroscopy and Physical chemistry

Month	Unit No.	Topic to be covered
Nov-18	I	Spectrophotometry and Electronic spectroscopy
Dec-18	II	Infrared spectroscopy and NMRspectroscopy
Jan-19	III	Dilute solutions
Feb-19	IV	Electro chemistry-I
Mar-19	V	Electro chemistry-II and Phase rule

SEMESTER – V(501)

2018-19 CURRICULAR PLAN

Subject Code: CHE-501

Title :Inorganic, Organic & Physical Chemistry

Month	Unit No.	Topic to be covered
June -18	I	Co -ordination chemistry
July-18	II	Spectral and magnetic properties of metal complexess
Aug-18	III	Nitro hydro carbons
Sep-18	IV	Nitrogen compounds
Oct-18	V	thermodynamics

SEMESTER – V(502)

2018-19 CURRICULAR PLAN

Subject Code: CHE-502 Title :Inorganic, Organic & Physical Chemistry

Month	Unit No.	Topic to be covered
June -18	I	Reactivity of metal complexes and Bio-inorganic chemistry
July-18	II	Heterocyclic compounds
Aug-18	III	Carbohydrates
Sep-18	IV	Amino acids and proteins
Oct-18	V	Chemical kinetics and photo chemistry

SEMESTER – VI(GE)

2018-19 CURRICULAR PLAN

Subject Code: CHE-601 Title :Analytical methods in Chemistry

Month	Unit No.	Topic to be covered
Nov-18	I	Quantitative analysis
Dec-18	II	Treatment of Analytical data
Jan-19	III	Separation techniques in chemical analysis
Feb-19	IV	Paper chromatography
Mar-18	V	TLC, Column chromatography

SEMESTER – VI(CHE-602CE)

2018-19 CURRICULAR PLAN

Subject Code: CHE-602CE Title :Organic spectroscopic techniques

Month	Unit No.	Topic to be covered
Nov-18	I	NMR spectroscopy
Dec-18	II	NMR spectroscopy
Jan-19	III	Electronic spectra of poly atomic molecules
Feb-19	IV	UV& Visible spectroscopy
Mar-19	V	Electron spin resonance spectroscopy

SEMESTER – VI(CHE-603CE)

2018-19 CURRICULAR PLAN

Subject Code: CHE-603

Title :Advanced organic reactions

Month	Unit No.	Topic to be covered
Nov-18	I	Organic photo chemistry
Dec-18	II	Organic photo chemistry
Jan-19	III	Protecting groups and organic reactions
Feb-19	IV	Synthetic reactions
Mar-19	V	New synthetic reactions

SEMESTER – VI(CHE-604CE)

2018-19 CURRICULAR PLAN

Subject Code: CHE-604

Title :Pharmaceutical and Medicinal chemistry

Month	Unit No.	Topic to be covered
Nov-18	I	Pharmaceutical terminology
Dec-18	II	Nomenclature
Jan-19	III	Synthesis and therapeutic activity of drugs
Feb-‘19	IV	Pharmacodynamic drugs
Mar-19	V	HIV-AIDS

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

DEPARTMENT OF computer science

YEAR:2018-19

SEMESTER – I

CURRICULAR PLAN/TEACHING PLAN

Subject Code: CSC-101C Title: Computer Fundamentals & Photoshop YEAR: 2018-19

Class: B.Sc.(MPCs)

Month	Unit No.	Topic to be covered
JUNE-2018	I	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.
JULY - 2018	II	Input and output devices: Keyboard and mouse, inputting data in other ways, Types of Software: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.
AGU-2018	III	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.
SEP-2018	IV	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.
OCT 2018	V	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.

SEMESTER-I

Subject Code: CCSC-103C Title: Computer Fundamentals & Photoshop YEAR: 2018-19
Class:B.Com.(C.A)

Month	Unit No.	Topic to be covered
JUNE-2018	I	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.
JULY - 2018	II	Input and output devices: Keyboard and mouse, inputting data in other ways, Types of Software: system software, Application software, commercial, open source, domain and freeware software, Memories: primary, secondary and cache memory. Windows basics: desktop, start menu, icons.
AGU-2018	III	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.
SEP-2018	IV	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.
OCT 2018	V	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.

SEMESTER:II

Subject Code: **CSC-201C**

Title: **PROGRAMMING IN C**

YEAR: **2018-'19**

Class:B.Sc.(MPC'S)

Month	Unit No.	Topic to be covered
NOV-2018	I	Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms -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 in C- Operators in C- Programming Examples – Type Conversion and Type Casting
DEC - 2018	II	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
JAN-2019	III IV	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 Pointers: Understanding Computer Memory – Introduction to Pointers – declaring PointerVariables – Pointer Expressions and Pointer Arithmetic – Null Pointers – Generic Pointers -Passing Arguments to Functions using Pointer
FEB-2019	IV	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
MAR-2019	V	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

SEMESTER:II

Subject Code: **CCSC-203C** Title: **ENTERPRISE RESOURCE PLANNING**

YEAR: 2018-‘19

Class:B.Com.(C.A)

Month	Unit No.	Topic to be covered
NOV-2018	I	Introduction: 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.
DEC - 2018	II	ERP Solutions and Functional Modules: Overview of ERP software solutions- Small, medium and large enterprise vendor solutions, BPR and best business practices - Business process Management, Functional modules.
JAN-2019	III	ERP Implementation: 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.
FEB-2019	IV	Post Implementation: Maintenance of ERP- Organizational and Industrial impact; Success and Failure factors of ERP Implementation.
MAR-2019	V	Emerging Trends on ERP: Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing.

SEMESTER:II

Subject Code: ICT-I-201

Title: Computer Fundamentals & Office Tools

YEAR: 2018-‘19

Class: B.A, B.Com, B.Sc.

Month	Unit No.	Topic to be covered
NOV-2018	I	Basics of Computers Definition of a Computer - Characteristics and Applications of Computers – Block Diagram of a Digital Computer – Classification of Computers based on size and working Central Processing Unit – Input, Output and I/O Devices
DEC - 2018	II	Memory Devices & Operating Systems :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
JAN-2019	III IV	MS-Word Features of MS-Word – MS-Word Window Components – Creating, Editing, Formatting and Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format – Page Borders and Shading – Inserting Symbols, Shapes, Word Art, Page Numbers, Equations – Spelling and Grammar – Thesaurus – Mail Merge MS-PowerPoint Features of PowerPoint – Creating a Blank Presentation - Creating a Presentation using a Template - Inserting and Deleting Slides in a Presentation
FEB-2019	IV	Adding Clip Art/Pictures -Inserting Other Objects, Audio, Video - Resizing and Scaling of an Object – Slide Transition – Custom Animation
MAR-2019	V	Emerging Trends on ERP : Extended ERP systems and ERP add-ons -CRM, SCM, Business analytics - Future trends in ERP systems-web enabled, Wireless technologies, cloud computing.

SEMESTER -III**Subject Code:**CSC-301C**Title:** Object Oriented Programming using Java**YEAR:** 2018-'19**Class:** B.SC (MPC'S)

Month	Unit No.	Topic to be covered
JUNE-2018	I II	Electron microscopic structure of cell Plasma membrane - Fluid mosaic model, Transport functions of plasma membrane (Active & Passive) Structure and functions of Endoplasmic reticulum. Structure and functions of Golgi body. Structure and functions of Ribosome's. Structure and functions of Lysosomes.
JULY -2018	II III	Structure and functions of Mitochondria. Chromosomes - Structure, types & functions Mendel's Laws of Inheritance. Incomplete dominance and co-dominance
AGU-2018	III IV	Lethal alleles, Epistasis Linkage and crossing over Sex determination (Male hetero & female homogametic, female hetero & male, homogametic type, Haplo – Diploid, Genic Balance Theory, Barr bodies. Sex linked inheritance (X – linked, Y – linked & XY – linked inheritance. Sex – limited and Sex influenced inheritance.) Extra chromosomal inheritance (Kappa particles in Paramecium)
SEP-2018	V	Origin of life. Hardy – Weinberg Equilibrium. Lamarckism, Darwinism, Neo – Darwinism. Isolation. Speciation (Allopatric and Sympatric).

SEMESTER -III

Subject Code: CCSC-303C

Title: Office Automation Tools

Year:2018-2019

Class: B.COM(CA)

Month	Unit No.	Topic to be covered
JUNE-2018	I	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.
JULY - 2018	II	options: Different formatting options, change row height, formulae and Functions, Functions: Meaning and advantages of functions, different types of functions available in Excel. 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.
AGU-2018	III IV	Macro: Meaning and advantages of Macros, creation, editing and deletion of macros - Creating a macro, how to run, how to delete a macro. 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.
SEP-2018	V	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.

SEMESTER -III

Subject Code: ICT-II-301C

Title: Internet Fundamentals & Web tools

YEAR:2018-2019

Class: B.COM(CA)

Month	Unit No.	Topic to be covered
JUNE-2018	I II	Fundamentals of Internet : Networking Concepts, Data Communication – Types of Networking, Internet and its Services, Internet Addressing – Internet Applications – Computer Viruses and its types – Browser –Types of Browsers. Internet applications: Using Internet Explorer, Standard Internet Explorer Buttons, Entering a Web Site Address, Searching the
JULY -2018	II III	Internet – Introduction to Social Networking: twitter, tumbler, LinkedIn, face book, flicker, Skype, yelp, vimeo, yahoo, Google+, YouTube, WhatsApp, etc. E-mail : Definition of E-mail - Advantages and Disadvantages – User-Ids, Passwords, Email Addresses, Domain Names, Mailers,
AGU-2018	III IV	E-Mail: Message Components, Message Composition, Mail Management, Email Inner Workings. WWW- Web Applications, Web Terminologies, Web Browsers, URL – Components of URL, Searching WWW – Search Engines and Examples
SEP-2018	V	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, Image formats – Creation of simple HTML Documents.

SEMESTER -IV**Subject Code:** CSC-401C**Title:** Data Structures**YEAR:**2018-19**Class:** B.SC (MPC'S)

Month	Unit No.	Topic to be covered
NOV-2018	I	Concept of Abstract Data Types (ADTs)- Data Types, Data Structures, Storage Structures, and File Structures, Primitive and Non-primitive Data Structures, Linear and Non-linear Structures. Linear Lists - ADT, Array and Linked representations, Pointers. Arrays - ADT, Mappings, Representations, Sparse Matrices, Sets - ADT, Operations Linked Lists: Single Linked List, Double Linked List, Circular Linked List, applications
DEC -2018	II	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.
JAN-2019	III	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
FEB-2019	IV	Graphs – Graph and its Representation, Graph Traversals, Connected Components, Basic Searching Techniques, Minimal Spanning Trees
MAR-2019	V	Sorting and Searching: Selection, Insertion, Bubble, Merge, Quick, Heap sort, Sequential And Binary Searching.

SEMESTER -IV**Subject Code:** CCSC-403C**Title:** Business Analytics**YEAR:**2018-19**Class:** B.COM (CA)

Month	Unit No.	Topic to be covered
NOV-2018	I	Introduction - Business Analytics Life Cycle - Business Analytics Process - Data concepts - Data exploration & visualization - Business Analytics as Solution for Business Challenges .
DEC -2018	II	Automated Data Analysis: Tabulation and Cross Tabulation of Data: Univariate, Bivariate and Multivariate Data Analysis – ANOVA.
JAN-2019	III	Hypothesis Testing: Type 1 & 2 errors - T-test, ANOVA, Chi-Square and correlation- Linear Regression Analysis - Logistic Regression - Cluster Analysis - Market Basket Analysis.
FEB-2019	IV	Business Data Management: Master Data Management: Data Warehousing and kinds of Architecture – Data Extraction – Transformation and Up-loading of Data –
MAR-2019	IV	Data Mining – Meta Data – Data Marts – Creating Data Marts – Data Integration – OLTP and OLAP.
	V	SPSS Packages – Applications and Case Studies.

SEMESTER -V**Subject Code:** CSC-501C **Title:** Data Base Management System **YEAR:** 2018-2019**CLASS:**B.SC (MPC'S)

Month	Unit No.	Topic to be covered
JUNE-2018	I	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
JULY - 2018	II	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.
AGU-2018	III	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.
SEP-2018	IV	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
OCT 2018	V	Introduction to PL/SQL: Triggers, Stored Procedures, PL/ SQL Stored Functions

SEMESTER -V**Subject Code:**CSC-502C
YEAR:2018-19**Title:** Software Engineering
CLASS:B.SC (MPC'S)

Month	Unit No.	Topic to be covered
JUNE-2018	I	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).
JULY -2018	II	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
AGU-2018	III	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.
SEP-2018	IV	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.
OCT 2018	V	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.

SEMESTER -V**Subject Code:** CCSC-505C **Title:** Programming in C **YEAR:**2018-19**CLASS:** BCOM(CA)

Month	Unit No.	Topic to be covered
JUNE-2018	I	Introduction to Algorithms and Programming Languages: 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 and Executing C Programs Using Comments – Keywords – Identifiers – Basic Data Types in C – Variables Constants – I/O Statements in C- Operators in C- Programming Examples – Type Conversion and Type Casting.
JULY -2018	II	Decision Control and Looping Statements :Introduction to Decision Control Statements – Conditional Branching Statements – Iterative Statements – Nested Loops – Break and Continue Statement – Go to Statement
AGU-2018	III	Function: Introduction – using functions – Function declaration/prototype – Function definition – function call – return statement – Passing parameters – Scope of variables – Storage Classes – Recursive function.
SEP-2018	IV	Array :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
OCT 2018	V	Pointers :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.

SEMESTER -V**Subject Code:** CCSC-506C **Title:** Data Base Management System **YEAR:**2018-19**CLASS:** BCOM(CA)

Month	Unit No.	Topic to be covered
JUNE-2018	I	Database Systems Introduction Data base 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.
JULY -2018	II	Relational Database & Data Modeling 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 Modeling: The Extended Entity Relationship Model, Entity clustering.
AGU-2018	III	Normalization and Database Design 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
SEP-2018	IV	Structured Query Language Introduction to SQL: Data Definition Commands, Data Manipulation Commands, Select queries, Advanced Data Definition Commands, Advanced Select queries, Virtual Tables, SQL Join Operators,
OCT 2018	V	Procedural SQL Introduction to PL/SQL : Triggers, Stored Procedures, PL/ SQL Stored Functions

SEMESTER -VI

Subject Code: CSC-601(GE) **Title:** WEB TECHNOLOGIES **YEAR:**2018-19
CLASS: BSC(MPC'S)

Month	Unit No.	Topic to be covered
NOV-2018	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.
DEC -2018	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.
JAN-2019	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.
FEB-2019	IV V	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. JSP: JSP Lifecycle, Basic Syntax, EL (Expression Language), EL Syntax, Using EL Variables

SEMESTER -VI**Subject Code: CSC-602CE Title: PHP, MySQL & Word Press Year:2018-19****CLASS: BSC(MPC'S)**

Month	Unit No.	Topic to be covered
NOV-2018	I	Installing and Configuring MySQL: 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
DEC - 2018	II	Working with Functions: 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.
JAN-2019	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. 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.
FEB-2019	IV	Introduction to MySQL Introduction to My SQL and 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 REPLACE 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
MAR-2019	V	Word press 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.

SEMESTER -VI

Subject Code: CSC-603CE Title: Advanced java Script: JQUERY/AJAX/JSON/ANGULAR JS YEAR: 2018-19

CLASS: B.SC(MPC'S)

Month	Unit No.	Topic to be covered
NOV-2018	I	JQuery – Basics: 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.
DEC -2018	II	jQuery – CSS Methods : 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
JAN-2019	III IV	Intro to jQuery UI 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.
FEB-2019	IV	Intro to AJAX 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.
MAR-2019	V	Intro to AngularJS 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.

Month	Unit No.	Topic to be covered
NOV-2018	I	Introduction to Tally: 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.
DEC -2018	II	Introduction of Tally Software 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.
JAN-2019	III	Ledgers Ledger Creation Single and multiple Ledgers, Displaying & altering Ledgers, configure Ledger, Stock Ledger, Ledgers and their Group Allocation.
FEB-2019	IV	Vouchers 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
MAR-2019	V	Final Accounts 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.

SEMESTER -VI**Subject Code:** COM-CSC-606 **Title:** E-COMMERCE **YEAR:**2018-19**CLASS:** BCOM(CA)

Month	Unit No.	Topic to be covered
NOV-2018	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
DEC -2018	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.
JAN-2019	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 .
FEB-2019	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.
MAR-2019	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.

SEMESTER -VI**Subject Code:** CCSC-607CE**Title:** PHP& MY SQL**YEAR:**2018-19**CLASS:** BCOM(CA)

Month	Unit No.	Topic to be covered
NOV-2018	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.
DEC -2018	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.
JAN-2019	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.
FEB-2019	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.
MAR-2019	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.

A.G&S.G.S DEGREE COLLEGE OF ARTS & SCIENCE, VUYYURU
DEPARTMENT OF BOTANY
2018 CURRICULAR PLAN (2018-19)

SEMESTER – I

Paper II: TITLE OF THE PAPER: *Microbial Diversity, Algae and Fungi*

Month	Unit No.	Topic to be covered
JUNE-2018	I	Origin and Evolution of Life, Microbial diversity 1. Origin of life –theories introduction; Lamarckism, Darwinism and Neo Darwinism. 2. Geological time scale 3. Microbial diversity-Mycoplasma – Chlamydia -Archaeobacteria – Actinomycetes
JULY -2018	II	VIRUSES AND BACTERIA 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.
AGU-2018	III	CYANOBACTERIA AND LICHENS 1. Cyanobacteria: General account of cell structure, thallus organization and their uses as Biofertilizers. 2. Structure, reproduction and life history of <i>Nostoc</i> and <i>Scytonema</i> . 3. Lichens – Morphology –Anatomy –Reproduction –Economic importance.
SEP-2018	IV	Algae 1. General account, Fritsch classification of Algae and economic importance. 2. Structure, reproduction, life history of <i>Oedogonium</i> , <i>Vaucheria</i> and <i>Ectocarpus</i> .
OCT 2018	V	FUNGI 1. General characters, classification (Alexopolous) and economic importance. 2. Structure, reproduction and life history of <i>Albugo</i> , <i>Penicillium</i> , <i>Puccinia</i> . 3. General account of plant diseases caused by Fungi (Late blight of potato, Red rot of Sugarcane and Paddy blast) and their control.

Month	Unit No.	Topic to be covered
NOV-2018	I	BRYOPHYTA 1. Bryophyta: General characters and classification (up to classes only). 2. Structure, reproduction and Life history of <i>Marchantia</i> and <i>Polytrichum</i> . 3. Evolution of Sporophyte in Bryophytes
DEC -2018	II	PTERIDOPHYTA 1. Pteridophyta: General characters and Classification (up to classes only). 2. Structure, reproduction and life history of <i>Lycopodium</i> and <i>Marsilea</i> . 3. Heterospory and seed habit 4. Stelar Evolution in Pteridophytes
JAN-2019	III	GYMNOSPERMS 1. Gymnosperms: General characters and classification (up to classes only). 2. Morphology, Anatomy, reproduction and life history of <i>Pinus</i> and <i>Gnetum</i> .
FEB-2019	IV	Tissues and Tissue systems 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. Secondary growth. 1. Anomalous secondary growth in <i>Dracaena</i> , <i>Boerhaavia</i> and <i>Bignonia</i> .
MAR-2019	V	2. Wood structure- general account, Study of local timbers Teak, Rosewood, Red sanders and <i>Terminalia tomentosa</i> .

Paper III: Plant Taxonomy and Plant Physiology SEMESTER - III

Month	Unit No.	Topic to be covered
JUNE-2018	I II	Introduction to Plant Taxonomy 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 Systematic Taxonomy 1. Nomenclature and Taxonomic resources: An introduction to International Code of Botanical Nomenclature; Principles, Rules and Recommendations.
JULY -2018	II III	2. Systematic study and economic importance of plants belonging to the following families: Annonaceae, Capparidaceae, Rutaceae, Cucurbitaceae and Apiaceae.
AGU-2018	III IV	Systematic Taxonomy 1. Systematic study and economic importance of plants belonging to the following families: Asteraceae, Asclepiadaceae, Lamiaceae, Euphorbiaceae, Orchidaceae and Poaceae. Plant – Water relations 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.
SEP-2018	V	Mineral nutrition and Fertilizers 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.

Month	Unit No.	Topic to be covered
NOV-2018	I	EMBRYOLOGY 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. EMBRYOLOGY AND PALYNOLOGY 1. Endosperm Development and types. 2. Embryo - development and types.
DEC -2018	II	3. Polyembryony and Apomixis - an outline. 4. Palynology: Principles and applications. PLANT METABOLISM- I 1. Photosynthesis: Electromagnetic spectrum, absorption and action spectra; Red drop and Emerson enhancement effect, concept of Z scheme in photosystems,
JAN-2019	III	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. PLANT METABOLISM- II 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.
FEB-2019	IV	GROWTH AND DEVELOPMENT 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.

SEMESTER – V CELL BIOLOGY, GENETICS AND PLANT BREEDING

Month	Unit No.	Topic to be covered
JUNE-2018	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. Genetic Material 1. DNA as the Genetic Material: Griffith's and Avery's Transformation Experiment. Hershey - Chase Bacteriophage experiment.
JULY -2018	II	2. DNA Structure (Watson & crick model) and replication of DNA (Semi Conservative). 3. Types of RNA (mRNA, tRNA, rRNA), their structure and function. Mendelian Inheritance 1. Mendelian Inheritance (Mono – Di-hybrid Crosses), Back cross and Test cross.
AGU-2018	III	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. Gene Expression 1. Organization of gene, Transcription and Translation. 2. Mechanism and regulation of Gene Expression in Prokaryotes (Lac operon).
SEP-2018	IV	3. Mutations: Chromosomal Aberrations, Gene Mutations and Transposable Elements. Plant Breeding 1. Introduction and objectives of Plant Breeding. 2. Methods of Crop Improvement: Procedure, Advantages and limitations of Introduction,
OCT 2018	V	Selection and Hybridization (Out lines only).

Month	Unit No.	Topic to be covered
JUNE-2018	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.
JULY -2018	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.
AGU-2018	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
SEP-2018	IV	Phytogeography 1.Principles of Phytogeography, Distribution (Wides, Endemic, Discontinuous species. 2. Phytogeographic regions of India. 3. Endemism – types and Causes.
OCT 2018	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).

PAPER – VII – ELECTIVE-C
Plant tissue culture and its biotechnological applications

Month	Unit No.	Topic to be covered
NOV-2018	I	PLANT TISSUE CULTURE – 1 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.
DEC -2018	II	Plant Tissue culture-2 1. Endosperm culture – Embryo culture -culture requirements – applications, embryo rescue technique. 2. Production of secondary metabolites. 3. Cryopreservation; Germ plasm conservation.
JAN-2019	III	Recombinant DNA technology 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 interest by complementation technique, colony hybridization. Methods of gene transfer 1. Methods of gene transfer- Agrobacterium-mediated, direct gene transfer by Electroporation, Microinjection, Micro projectile bombardment.
FEB-2019	IV	2. Selection of transgenics– selectable marker and reporter genes (Luciferase, GUS, GFP). Applications of Biotechnology 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);
MAR-2019	V	improved agronomic traits (flavrSavr tomato, Golden rice); Improved horticultural varieties (Moon dust carnations).

Paper – VIII-A-1 PLANT DIVERSITY AND HUMAN WELFARE BOT-602 (CE)

Month	Unit No.	Topic to be covered
NOV-2018	I	Plant diversity and its scope: 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.
DEC -2018	II	Loss of biodiversity: 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.
JAN-2019	III	Contemporary practices in resource management: 1. Environmental Impact Assessment (EIA), Geographical Information System GIS, 2. Solid and liquid waste management. Conservation of biodiversity 1. Conservation of genetic diversity, species. diversity
FEB-2019	IV	2.Social approaches to conservation, Biodiversity awareness , Programmes, Sustainable development. Role of plants in relation to Human Welfare 1.Importance of forestry, their utilization and commercial aspects- a) Avenue trees, b) ornamental plants of India. c) Alcoholic beverages Through ages
MAR-2019	V	2 Fruits and nuts: Important fruit crops their commercial importance. Wood, fiber and their uses.

Paper – VIII-A-2 Ethnobotany AND MEDICINAL BOTANY BOT-603 (CE)

Month	Unit No.	Topic to be covered
NOV-2018	I	Ethnobotany 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.
DEC -2018	II	Role of ethnobotany in modern Medicine (12hrs) 1. Role of Ethnobotany in modern medicine with special example; <i>Rauwolfiaserpentina</i> , <i>Artemisia annua</i> , <i>Withaniasomnifera</i> . 2. Significance of the following plants in ethno botanical practices (along with their habitat And morphology) a) <i>Azadirachta indica</i> , b) <i>Vitexnegundo</i> , c) <i>Ocimum sanctum</i> , d) <i>phyllanthus niruri</i> 3. Role of ethnic groups in the conservation of plant genetic resources.
JAN-2019	III	Ethno botany as a tool to protect interests of ethnic groups 1. Sharing of wealth concept with few examples from India. 2. Biopiracy, Intellectual Property Rights and Traditional Knowledge
FEB-2019	IV	History, Scope and Importance of Medicinal Plants. Indigenous Medicinal Sciences 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.
MAR-2019	V	Conservation of endangered and endemic medicinal plants 1. Definition: endemic and endangered medicinal plants, 2. Red list criteria 3. <i>In situ</i> conservation: sacred groves, National Parks 4. <i>Ex situ</i> conservation: Botanical Gardens.

Paper – VIII-A-3 Pharmacognosy and Phytochemistry

Month	Unit No.	Topic to be covered
NOV-2018	I	Pharmacognosy 1. Definition, Importance 2. Classification of drugs - Chemical and Pharmacological 3. Drug evaluation methods. Organoleptic and microscopic studies: (12hrs) 1. Organoleptic and microscopic studies with reference to nature of active principles and common adulterants of
DEC -2018	II	2. a) <i>Adhatoda vasica</i> (leaf) b) <i>Strychnos nuxvomica</i> (seed), c) <i>Rauwolfia serpentina</i> (root) d) <i>Zinziber officinalis</i> e) <i>Catharanthus roseus</i> .
JAN-2019	III	Secondary Metabolites: 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.
FEB-2019	IV	Phytochemistry `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.
MAR-2019	V	Enzymes, proteins and amino acids as drugs 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.

DEPARTMENT OF ZOOLOGY
2018-19
CURRICULAR PLAN/TEACHING PLAN
SEMESTER – I

Subject Code: Zoo-101 Title: Biology of Non – Chordates

Month	Unit No.	Topic to be covered
JUNE-2018	I	Significance of Diversity of Invertebrates. Phylum - Protozoa: Type study: Elphidium. Phylum - Porifera: Type study: Sycon - Morphology, histology, spicules. Canal system in Sponges.
JULY - 2018	II	Phylum - Coelenterate: Type study :Obelia - Morphology, Structure of Polyp & Medusa. Polymorphism in Coelenterates. Coral& Coral reef formation Phylum- Platyhelminthes: Type study: Fasciola hepatica – Morphology, Excretory system, Reproductive system, Life history &Pathogenecity. Phylum - Nematelminthes: Type study: Ancylostomaduodenale - Morphology & Life history
AGU-2018	III	Phylum - Annelida: Type study:Hirudinaria granulose – Morphology, Digestive system, excretory system & Reproductive system. Coelomoducts. Vermiculture: Scope, Significance of Vermiculture, Earthworms Sps, Processing of Vermiculture, Vermicompost, and Economic Importance of Vermicompost.
SEP-2018	IV	Phylum - Arthropoda: Type study: Prawn – External characters [Except appendages], Respiratory system &Circulatory system. Peripatus : Structure & affinities. Phylum – Mollusca: Pearl Formation in Pelecypoda. Torsion in Gastropoda.
OCT 2018	V	Phylum - Echinodermata: Water vascular system of Star Fish. Hemichordata : Balanoglossus : Structure , Affinities. Invertebrates Larval forms: Amphiblastula, Ephyra, Trochophore, Nauplius, Glochidium, Bipinnaria, Tornaria.

SEMESTER -II

Subject Code: Zoo-201 Title: Biology of Chordates YEAR:2018-19

Month	Unit No.	Topic to be covered
NOV-2018	I	. Prochordata. Structure of <i>Branchiostoma</i> Affinities of Cephalochordata Structure and Life History of <i>Herdmania</i> Significance of Retrogressive metamorphosis
DEC -2018	II	.Cyclostomata Differences between Petromyzonand <i>Myxine</i> . Pisces. <i>Scoliodon</i> - External features, Digestive System, Respiratory System, Heart, Brain. Migration in Fishes Dipnoi
JAN-2019	III	Amphibia. <i>Rana hexadactyla</i> - External features, Digestive System, Respiratory System, Heart, Brain. Parental care in Amphibians ReptiliaCalotes - External features, Digestive System, Respiratory System, Heart, Brain
FEB-2019	IV	Aves : <i>Columbalivia</i> - Exoskeleton, Digestive System, Respiratory System, Heart, Brain Migration in Birds Flight adaptations in Birds
MAR-2019	V	.Mammalia . Differences between Prototheria & Metatheria Dentition in Mammals.

SEMESTER -III**Subject Code: ZOO301****Title: Cytology, Genetics and Evolution**

Month	Unit No.	Topic to be covered
JUNE-2018	I II	Electron microscopic structure of cell Plasma membrane - Fluid mosaic model, Transport functions of plasma membrane (Active & Passive) Structure and functions of Endoplasmic reticulum. Structure and functions of Golgi body. . Structure and functions of Ribosome's. . Structure and functions of Lysosomes.
JULY -2018	II III	Structure and functions of Mitochondria. Chromosomes - Structure, types & functions Mendel's Laws of Inheritance. Incomplete dominance and co-dominance
AGU-2018	III IV	Lethal alleles, Epistasis Linkage and crossing over . Sex determination (Male hetero & female homogametic, female hetero & male, homogametic type, Haplo – Diploid, Genic Balance Theory, Barr bodies. IV . Sex linked inheritance (X – linked, Y – linked & XY – linked inheritance. Sex – limited and Sex influenced inheritance.) Extra chromosomal inheritance (Kappa particles in Paramecium)
SEP-2018	V	Origin of life. Hardy – Weinberg Equilibrium. . Lamarckism, Darwinism, Neo – Darwinism. Isolation. . Speciation (Allopatric and Sympatric).

SEMESTER -IV

Subject Code: ZOO401 Title: Embryology, Physiology and Ecology YEAR: 2018-19

Month	Unit No.	Topic to be covered
NOV-2018	I	Developmental Biology and Embryology Gametogenesis (Spermatogenesis, Oogenesis in mammals) Fertilization Types of eggs Types of cleavages Fetal membranes in Chick Development - types and functions of Placenta in mammals.
DEC -2018	II	Elementary study of digestive process. Absorption of digested food. Respiration – Structure of mammalian Lung & Mechanism of respiration, transport of oxygen and carbon dioxide Circulation - Structure and functioning of mammalian heart, Cardiac cycle. Excretion - Structure of nephron, urine formation, counter current mechanism.
JAN-2019	III	Structure & functional properties of Nerve Cell; Production & propagation of nerve Impulse. Synaptic transmission. Muscle contraction - Ultra structure of muscle fibre, molecular and chemical basis of muscle Contraction. Endocrine glands - Structure, secretions and the functions (of hormones) of Pituitary Thyroid, parathyroid, adrenal glands and pancreas. Hormonal control of reproduction in Mammals.
FEB-2019	IV	Abiotic factors of Ecosystem – Temperature & Light. Nutrient cycles - Nitrogen, Carbon and Phosphorus. Energy flow in ecosystem.
MAR-2019	V	Community interactions - Mutualism, commensalism, parasitism.. Ecological succession. Zoogeography .Study of physical and faunal peculiarities of Oriental, Australian and Ethiopian regions.

SEMESTER -V

Subject Code: ZOO501 Title: Animal Biotechnology YEAR:2018-19

Month	Unit No.	Topic to be covered
JUNE-2018	I	Tools of Recombinant DNA technology - Enzymes and Vectors Restriction modification systems : : Types I, II and III- Nomenclature, Mode of action. Applications of Type II restriction enzymes in genetic engineering DNA modifying enzymes and their applications: DNA polymerases, Terminal deoxynucleotidyl transferase, kinases and phosphatases, and DNA ligases Cloning Vectors: Properties of Cloning Vectors Plasmid vectors: pBR and pUC 18, Bacteriophage lambda and M13 based vectors, Cosmids. Artificial Chromosome Vectors: BACs, YACs,
JULY -2018	II	Procedure of gene cloning Use of linkers and adaptors Gene delivery: :Microinjection, electroporation, biolistic method (gene gun), Calcium method. PCR:: Basics of PCR: Definition, Principle and Procedure of PCR. DNA Sequencing: Sanger's method of DNA sequencing- traditional and automated sequencing: DNA finger printing. Hybridization techniques: Southern, Northern and Western blotting. Genomic and cDNA libraries: : Preparation and uses
AGU-2018	III	Cell culture media: :Natural and Synthetic Types Cell cultures: primary culture, secondary culture, Protocols for Primary Cell Culture Continuous cell lines , Established Cell lines (common examples such as MRC, HeLa, CHO, BHK, Vero) Cryopreservation of cultures. Hybridoma Technology: Cell fusion, Production of Monoclonal antibodies (mAb) Applications of mAb Stem cells: :Types of stem cells- Embryonic and Adult Stem Cell: Applications of Stem Cell Technology in Cell based therapy- Diabetes and Parkinson's diseases
SEP-2018	IV	: Reproductive Technologies & Transgenic Animals Manipulation of reproduction in animals:: Artificial Insemination, <i>In vitro</i> fertilization .: super ovulation, Embryo transfer, Embryo cloning Transgenic Animals: Production of Transgenic Animals- sheep, fish
OCT 2018	V	Applied Biotechnology Industry: Fermentation: Different types of Fermentation. Submerged & Solid state, batch, Fed batch & Continuous (Short notes only) Downstream processing - Filtration, centrifugation, extraction, chromatography, spray drying and lyophilization Fisheries Polyploidy in fishes

SEMESTER -V

Subject Code: ZOO502

Title: Animal Husbandry

YEAR:2018-19

Month	Unit No.	Topic to be covered
JUNE-2018	I	General introduction to poultry farming. Principles of poultry housing. Poultry houses. Systemsof poultry farming. Management of chicks, growers, layers, and Broilers.
JULY -2018	II	Poultry feed management – Principles of feeding. Nutrient requirements for different stages of layers and broilers. Methods of feeding- Whole grain feeding system, Grain and mash method, All mash method, Pellet feeding. Poultry diseases – viral, bacterial, fungal and parasitic (two each); symptoms, control and management.
AGU-2018	III	Selection, care and handling of hatching eggs. Egg testing. Methods of hatching. Brooding and rearing. Sexing of chicks
SEP-2018	IV	Breeds of Dairy Cattle and Buffaloes – Definition of breed; Classification of Indian Cattlebreeds,exotic breeds and Indian buffalo breeds. Systems of inbreeding and crossbreeding. Housing of dairy animals – Selection of site for dairy farm; systems of housing – loose, housing system.Conventional dairy barn
OCT 2018	V	Care and management of dairy animals - Care and management of calf, heifer, milk animal, dry and pregnant animal, bulls and bullocks. Cleaning and sanitation of programme. Records to be maintained in a dairy farm.

SEMESTER -VI

Subject Code: ZOO601 Title:Immunology YEAR:2018-19

Month	Unit No.	Topic to be covered
NOV-2018	I	Overview of Immune system Introduction to basic concepts in Immunology. Innate and adaptive immunity Cells and organs of Immune system Cells of immune system Organs of immune system
DEC -2018	II	Antigens: Basic properties of antigens B and T cell epitopes, haptens and adjuvants Factors influencing immunogenicity
JAN-2019	III	Antibodies: Structure of an antibody Classes and functions of antibodies Antigen and antibody interactions. Monoclonal antibodies and their production
FEB-2019	IV	Working of an Immune system: Structure and functions of major histocompatibility complexes Exogenous and Endogenous pathways of antigen presentation and processing Basic properties and functions of mediator molecules. (cytokines interferonsand complement proteins). Mechanisms of humoral and cell mediated immunities
MAR-2019	V	Immune system in health and disease: Classification and brief description of various types of hyper sensitivities Introduction to concepts of autoimmunity and immunodeficiency Vaccines: General introduction to vaccines Types of vaccines

SEMESTER -VI

Subject Code: ZOO602

Title: Principles of Aquaculture Year:2018-19

Month	Unit No.	Topic to be covered
NOV-2018	I	Introduction / Basics of Aquaculture:- Definition, Significance and History of Aquaculture Present status of Aquaculture – Global and National scenario Major cultivable species for aquaculture: freshwater, brackish water and marine. Criteria for the selection of species for culture
DEC -2018	II	Types of Aquaculture :- Freshwater, Brackishwater and Marine Concept of Monoculture, Polyculture, Composite culture, Monosex culture and Integrated fish farming Culture systems :- Ponds, Raceways, Cages, Pens, Rafts and water recirculating systems Culture practices :- Traditional, extensive, modified extensive, semi-intensive and intensive cultures of Fish and shrimp
JAN-2019	III	Design and construction of aqua farms :- Criteria for the selection of site for freshwater and brackish water pond farms, Design and construction of fish and shrimp farms Seed resources :- Natural seed resources and Procurement of seed for stocking: Carp and shrimp Nutrition and feeds :- Nutritional requirements of a cultivable fish and shellfish Natural food and Artificial feeds and their importance in fish and shrimp culture
FEB-2019	IV	Management of carp culture ponds:- Culture of Indian major carps: Pre-stocking management – Dewatering, drying, 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 of ponds Culture of giant freshwater prawn, <i>Macrobrachium rosenbergii</i>
MAR-2019	V	Culture of shrimp (<i>Penaeus monodon</i> or <i>Litopenaeus vannamei</i>) Culture of pearl oysters Culture of seaweeds- species cultured, culture techniques, important by-products, prospects Culture of ornamental fishes – Setting up and maintenance of aquarium; and breeding.

SEMESTER -VI**Subject Code: ZOO603 Title: Aquaculture Management YEAR:2018-19**

Month	Unit No.	Topic to be covered
NOV-2018	I	Breeding and Hatchery Management:- Bundh Breeding and Induced breeding of carp by Hypophysation; and Use of synthetic hormones. Types of fish hatcheries; Hatchery management of Indian major carps Breeding and Hatchery management of <i>Penaeus monodon</i> / <i>Litopenaeus vannamei</i> Breeding and Hatchery management of giant freshwater prawn.
DEC -2018	II	Water quality Management:- Water quality and soil characteristics suitable for fish and shrimp culture Identification of oxygen depletion problems and control mechanisms in culture ponds Liming materials, Organic manures and Inorganic fertilizers commonly used and Their implications in fish ponds
JAN-2019	III	Feed Management :- Live Foods and their role in shrimp larval nutrition. Supplementary feeds: Principal foods in artificial diets; Types of feeds; Feed additives and Preservatives; role of probiotics. Feed formulation and manufacturing; Feed storage Feeding strategies: Feeding devices, feeding schedules and ration size; Feed evaluation- feed conversion efficiencies and ratios
FEB-2019	IV	Disease Management :- Principles of disease diagnosis and health management; Prophylaxis, Hygiene and Therapy of fish diseases Specific and non-specific defense systems in fish; Fish immunization and Vaccination Etiology, Symptoms, prophylaxis and therapy of common fish diseases in fish ponds Etiology, Symptoms, prophylaxis and therapy of common shrimp diseases in shrimp ponds
MAR-2019	V	Economics and Marketing :- Principles of aquaculture economics – variable costs, cost-benefit analysis , Fish marketing methods in India; Basic concepts in demand and price analysis. 5.2 Fisheries Extension :Fisheries Training and Education in India; Role of extension in communitydevelopment. 5.3 Fish Genetics Genetic improvement of fish stocks – Hybridization of fish. Gynogenesis,Androgenesis, Polyploidy, Transgenic fish, Cryopreservation of gametes,

SEMESTER -VI

Subject Code: ZOO604 Title: Postharvest Technology Year: 2018-19

Month	Unit No.	Topic to be covered
NOV-2018	I	Handling and Principles of fish Preservation :- Handling of fresh fish, storage and transport of fresh fish, post mortem changes (Rigor mortis and spoilage), spoilage in marine fish and freshwater fish. Principles of preservation– cleaning, lowering of temperature, rising of temperature, use of salt, use of fish preservatives, exposure to low radiation
DEC -2018	II	Methods of fish Preservation :- Traditional methods - sun drying, salt curing, pickling and smoking. Advanced methods – chilling or icing, refrigerated sea water, freezing, canning, Irradiation and Accelerated Freeze drying (AFD).
JAN-2019	III	Processing and preservation of fish and fish by-products :- Fish products – fish minced meat, fish meal, fish oil, fish liquid (ensilage), fishprotein concentrate, fish chowder, fish cake, fish sauce, fish salads, fish powder, petfood from trash fish, fish manure. Fish by-products – fish glue, ising glass, chitosan, pearl essence, shark fins, fishleather and fish maws. Seaweed Products :- Preparation of agar, algin and carrageen. Use of seaweeds as food for human consumption.
FEB-2019	IV	Sanitation and Quality control :- Sanitation in processing plants - Environmental hygiene and Personal hygiene inprocessing plants. Quality Control of fish and fishery products – pre-processing control, control duringprocessing and control after processing. Regulatory affairs in industries
MAR-2019	V	Quality Assurance, Management and Certification :- Seafood Quality Assurance and Systems: Good Manufacturing Practices (GMPs); GoodLaboratory Practices (GLPs); Standard Operating Procedures (SOPs); Concept ofHazard Analysis and Critical Control Points (HACCP) in seafood safety. National and International standards – ISO 9000: 2000 Series of Quality Assurance System.