ANNUL ACADEMIC CURRICULAR PLAN: 2021-22

Name of the college: Govt. College for Women, Guntur — Name of the Department: Zoology

Name of the lecturer: Dr. M. Hanumantha Raju — Class: B.Sc — Year: 1st Year — Paper: I

Sl. No.	Month & Year	Hours Avail-ble	SYLLABUS/ TOPIC Animal diversity – Invertibrates SEMISTER-I	Additional input/value Addition provided/taught	Curricular Activity				Co- Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether conducted	If not Alternate Date	Activity Conducted	Hours allotted	Whether conducted	If not Alternate Date	
1	December 2021 II Week		Unit-I Bridge Course Brief history, significance of diversity in animals particularly in invertibrates Phylum: Protozoa, General characters & Classification with suitable examples. Type Study: Elphidium-structure & life history	Protozoan diseases	Group discussion among students	2 Hrs			!st year students orientation programme conducted				-
2	III Week		Phylum Polifera :- General characters and classification upto classes with suitable examples. Type Study:-Sycon structure of Sycon. Different canal systems in Sycon.	—	To collect student data base	2 Hrs			Students database collected				
3	III Week		Unit-II Phylum coelenterates:- General characters and classification upto classes with suitable examples. Type Study:- Obelia – Structure & life history.	—	Video lesson	2 Hrs							
4	IV Week		Polymorphism & division of labour in coelenterates. Formation of coral reefs. Phylum Platyhelmenthis: General characters and classification upto orders with suitable examples	Allotment of assignment to the students	Allotment of students seminars	2 Hrs			Assignments alloted				

5	Jan 22 — st		Phylum Platyhelmenthis :- Fasciola hepatica structure and excretory organs and excretory system in Fasciola. Reproductive System & life history.	To observe the invertebrates in the nature.		2 Hrs			Students were asked to observe the campus				
6	nd II Week		Larval forms in Fasciola hepatica various diseases of Fasciola to human and its prevention.	—		2 Hrs							
7			Ist Mid- Term examinations from to	allotment of assignments to the students									
8	III rd Week		Phylum nematihelmenthis :- Introduction to phylum and its general characters and classification upto classes and orders with suitable examples. Ascaris lumbricoidis structure and life history	To identify various helminthes human diseases		2 Hrs							
9	IV Week		**UNIT-III** Phylum Annelida: General character and systematic classification upto classes and orders with suitable examples. Type study Hirudinaria. Structure and digestive system & excretory systems.	Metamerism in Annelida		2 Hrs							
10	FEBRA -UARY 2022		Reproductive system in Hirudinaria. Vermiculture & Vermicompost and its uses.	To observe a vermin culture unit		2 Hrs							
11			IInd Mid- Term examinations from to	—									
12	I st Week		**UNIT-IV** Phylum Arthropoda – General character and systematic classification upto classes and orders with suitable examples. Type study: Prawn- structure and external characters. Digestive system	To observe various arthropods in the campus		2 Hrs							

13	February II Week III Week IV Week		Appendages. Circulatory and respiratory systems in prawn . Peripatus – connecting link between Annelida and Arthropoda. Its general characters and its connecting characters with the both phyla.	—		2 Hrs							
14	March 2022 I st Week		Phylum Mollusca :- General character and systematic classification upto classes and orders with suitable examples. Type study: Pila globosa structure and its digestive system. Peral formation in mollusca.	To observe the Molluscan organisims in the nature.	Video lesson	2 Hrs							
16	II Week III rd Week IV Week		Phylum Echinodermata :- General character and systematic classification upto classes and orders with suitable examples. Type study: Star Fish – its external character and occurrence. Water Vascular System in Echinodermata. Phylum Hemichorata- General characters and classification . Belanoglosus and its affinities with invertebrates and vertebrates. Larval forms of invertebrates – like – Amphiblastula, Nauplies, & Bipinnaria	To know the larval forms of the invertebrates	To visit vermin culture unit outside the campus	2 Hrs							

I/c
HEAD, Zoology

M. Hanumantha Raju
(DR. M. HANUMANTHA RAJU)
Lecturer in zoology

ANNUAL ACADEMIC CURRICULAR PLAN: 2021-22

Basic Principles of Aquaculture

Name : Dr. M. Hanumantha Raju — Name of the Department : ZOOLOGY

Course Code : AT2318

Class : B.Sc Aquaculture - Zoology – Chemistry — Year : 1st Year 1st Semester — PAPER-I

Sl. No.	Month & Year	Hours Available	SYLLABUS/ TOPIC	Additional input/value Addition provided/taught	Curricular Activity				Co-Curricular Activities
					Activity to be Conducted	Hours allotted	Whether conducted	If not Alternate Date	
1	December 2021 I Week		Bridge course UNIT-I Introduction History of Aquaculture- Blue Revolution – Different aquaculture Systems – Pond, Cage, Running water – Extensive	World Fish Scenario	To conduct Bridge Course	2 Hrs			
2	II Week		Intensive & Semi-Intensive systems and their significance. Monoculture, Polyculture & Monosex Culture Systems	—	To collect student data base	2 Hrs			
3	III Week		UNIT-II Pond Ecosystem, General Concepts of Ecology, Food chains, Lotic & Lentic Systems.	Different eco system	Allotment of student seminars	2 Hrs			
4	IV Week		Nutrient cycles in culture ponds – Phosphorous, carbon & Nitrogen cycles. Importance of Plankton and Benthos in culture ponds, nutrient dynamics & algal blooms	Fresh water & marine water plankton		2 Hrs			

I st Mid Excmination.

5	January 2022 I st Week		**UNIT-III** **Types of Fish Ponds** 3.1 classification of ponds based on water resources. Spring, rain water, flood water & water course ponds	—	Allotment of Student assignment	2 Hrs			
6	II nd Week & III rd Week		3.2. Functional classification of ponds – hatching nursing ponds, reusing ponds, stocking & quarantine ponds ***Practical Classes***	—		2 Hrs			
7	February 2022 I st & II Week		**Unit – IV** **Pond Preparation** Important factors in the construction of an ideal pond – site selection, topography – Nature of the soil, water resources		To visit Fish culture ponds	2 Hrs			
8	III & IV Week		Layout and arrangements of ponds in a fish farm ***Practical Classes***	—					
SCHEDULE OF IIND MID									
9	March 2022 I st & II Week		**Unit –V** Pond Management factors Need of fertilizer and manure application in culture ponds. Physico – chemical conditions of soil & water optimum for culture temp, turbidity, light, water , Ph, Do.	Sewage fish culture		2Hrs			
10	III rd & IV Week		, Co2 & nutrients, oxygen, reduce of ammonia, hydrogen sulphide in ponds. Eradication of predators and weeds advantages & disadvantages of weeds in culture ponds, control of weeds. **Practical Classes**	—		2Hrs			

Head / Zoology

M. Hanumantha Raju
Lecturer in Zoology

ANNUAL ACADEMIC CURRICULAR PLAN 20 - 20

Name of the College : Govt College (for Women(A)), GUNTUR Name of the Department : ECONOMICS

Name of the Lecturer : DR. G. MALLIKARJUN Class : B.A Year : III - V SEM Paper : V

S. No.	Month & Week	Hours available	Syllabus / Topic	Additional Input / Value Addition Provided /Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
	SEP V	4	Indian Agriculture Importance,	PPT	Assignment	1	yes						
			Agrarian structure & relations.										
	Oct I	5	Factors determining Productivity.						Debate	1	yes		
			Agriculture infrastructure.										
	Oct II	2	Rural Credit		Student Seminars	1	yes						
	Oct III	4	Micro Finance, Self Help Groups										
			Agricultural Price Policy.										
	Oct IV	5	Crop Insurance, Food security.						Group Discussion	1	yes		
	NOV I	5	Structure and growth of Indian	PPT									
			Industry										
	NOV II	5	Industrial Policy 1956 & 1991		Slip Test	1	yes						
	NOV III	5	Micro, small and medium Enterprises	PPT					Group Discussion	1	yes		
			Problems & Prospects of small scale industries.										
	NOV IV	5	Disinvestment in India, FEMA										

ANNUAL ACADEMIC CURRICULAR PLAN 20 - 20

Name of the College : Govt College (for Women(A), Guntur Name of the Department : Economics

Name of the Lecturer : Dr. G. Mallikarjuna Class : B.A Year : III - V SEM Paper : VI

S. No.	Month & Week	Hours available	Syllabus / Topic	Additional Input / Value Addition Provided / Taught	Curricular Activity				Co-Curricular Activity		
					Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted
	NOV V	2	Foreign Direct investment						Debate	1	yes
	Dec I	4	Services Sector in India	PPT	Student Seminar	1	yes				
			Reforms in Banking & Insurance								
	Dec II	5	IT, Education and Health in India								
	Dec III	5	Planning in India, objectives &		Skp Test	1	yes				
			Review of Five year plans								
	Dec IV	4	XI and XII plans, NITI Ayog.								
	Dec V	5	A.P. Economy - Population - GSDP.	PPT	Assignment	1	yes				
			Sector contribution and Trends						Group Discussion	1	yes
	Jan I	5	IT, Small scale Industries, SEZs								
			in A.P.								
	Jan II	3	Revision								
	Jan III	5	Revision								

ANNUAL ACADEMIC CURRICULAR PLAN 20 - 20

Name of the College : ..... Name of the Department : .....

Name of the Lecturer : ..... Class : ..... Year : ..... Paper : .....

S. No.	Month & Week	Hours avail-able	Syllabus / Topic	Additional Input / Value Addition Provided /Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether con-ducted	If not, alternate date	Activity Conducted	Hours allotted	Whether con-ducted	If not, alternate date	
	Jan IV	5	SEMESTER END EXAMS										
	Jan I	1	SEMESTER END EXAMS.										
			Signature of the Lecturer		Signature of the Incharge				Signature of the Principal				

PRINCIPAL
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR.

ANNUAL CURRICULAR PLAN 2020 - 21
Extension Education for Rural Development

Sl.No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
1	Nov 1st&2nd week & 3rd	15	Origin, Need and importance Concept, Principles & Philosophy, Objectives Types of Education Difference between formal and extension education Home Science Meaning & definition Broad objective of Home Science Areas of Home Science Role of Home Science extension Pre independence Post independence	Examples	Slip test	2	Yes		Assignment	2	Yes	

			Community Development and National Extension Scheme, Panchayat Raj Institution									
2.	Nov 4th week & dec 1 & 2 weeks	10	Definition Classification of methods & objectives, advantages and limitations of each method Individual methods Farm and home Office call and Personal letter Minikit trial Result Demonstration Group methods Method demonstration Group discussions Panel, Symposium Debate, Workshop Seminar, Conference Mass methods Campaign, Exhibition	Examples, PPT	Internal -I	1			Assignment Preparation of pamphlets and folders	2	Yes	

			Farm publication									
3	Decem 3rd & 4th week	10	Meaning, Importance Advantages Factors influencing in selection Classification of Audio-Visual aids Cone of Experience Audio aids Radio, Public address system Visual aids Non Projected Visual aids, Black Board, Bulletin Board, Poster, Chart Flannel graph & Flash cards Projected Visual Aids Slide projector, Slides, Film strip, OHP Audio visual aids- T.V. ,	PPT& videos Flipped class					Sports nutrition project Study project on Innovative Pedagogies Modern Teaching Technologies	3	Yes	

			Motion picture Video Three Dimensional Models & specimens									
4.	Jan	8	Definition, Whyte classification of leaders, Operational, Popularity Assumed representative, Prominent talent. Types- Professional & Lay leaders, Authoritarian or Autocratic leaders, Democratic leaders, Laissezfaire leaders. Roles of leaders. Qualities of leader, Selection of leaders	Examples	Internal - II				Study project on govt. programmes	1	Yes	
6	Feb 1st,& 2nd & 3rd week	12	Definition, Steps in programme planning, Implementation Evaluation Integrated Child Development Services, Swarnjayanti Gram Swarozgar Yojana, NREGP	Examples, flow charts	Remedial & sem end				Planning a Extension program Assignment	2	Yes	

			Bharat nirman, Agricultural Technology Management Agency(ATMA), ICAR, SAUs, KVK, NGO ‘s									

Govt. College for Women

(Autonomous)-GUNTUR. 1942 (Established)

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ANNUAL ACADEMIC PLAN

2021-22

Submitted by

Dr. B.Sridevi
Assistant Professor
Department of Chemistry

Annual Curricular Plan 2021-22 (I-B.Sc.-II- Semester - C1(B.Z.C.) & C2 (B.Z.C.) sections)

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
2	**September-2021**											
	4th Week	4	Aromatic Electrophilic substitution reactions; orientation effect in aromatic electrophilic substitution reactions; Chemical bonding: V.B. Theory, Hybridization, Structure of ClF_3 and $Ni(CO)_4$; M.O. Theory, LCAO, M.O. theory of N_2 and O_2 molecules		Lecture Method	4	Yes		Assignment was given	1	Yes	
	5th Week	2	M.O. theory of NO and CO molecules; HSAB and its applications	The behavior of NO and CO as ligands in the complex compou	Lecture Method	2	Yes					

				nds; Toxicity of heavy metal ions such as Hg^{2+} and Pb^{2+} to living organisms are discussed								
3	**October-2021**											
	1st Week	1	Adsorption, Adsorption isotherms	Use of transition metals (Fe, Ni and Pt) as catalysts in industrial process	Lecture Method	1	Yes					
	2nd Week (1st Half)	II-Semester-Mid-II Examinations										
	2nd Week (2nd Half)	2	Stereochemistry of organic compounds (stereoisomerism, chirality, plane polarized light, optical activity, symmetry		Lecture Method	2	Yes		Assignment was given	1	Yes	

			elements); optical isomerism									
	3rd Week	Dussehra Vacation										
	4th Week	3	Stereochemistry of organic compounds Configuration of organic compounds (D, L; R, S; and E, Z-); Racemic mixture and Resolution of Racemic mixture; Colloids	Importance of chiral compounds in biological systems was discussed	Lecture Method	2	Yes		Seminar on colloids by the students	1	Yes	
	5th Week	4	Chemistry of C-C sigma bonds (alkanes & cycloalkanes: Methods for preparation of alkanes and reactions of alkanes); Mechanism of halogenation of alkanes and conformational analysis of ethane, propane, n-butane); Relative stability and conformations of cycloalkanes; Baeyer strain theory; Revision of topics	Importance of alkanes in daily was discussed	Lecture Method	3	Yes		Assignment	1	Yes	
4	**November-2021**											
	1st Week	2	Remedial Classes		Lecture Method	2	Yes					

	2nd Week	End Semester Examinations											
	3rd Week	End Semester Examinations											
	4th Week (1st Half)	End Semester Examinations											

Annual Curricular Plan 2021-22 (III-B.Sc.-V- Semester – C1(B.Z.C.) & B3 (Bc.B.C.)-Sections

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**September-2021**											
	1st Week	1	Introduction to coordination chemistry		Lecture Method	1	Yes					
	2nd Week	2	Nomenclature of coordination compounds		Lecture Method	2	Yes		Assignment was given	1	Yes	
	3rd Week	3	Isomerism of coordination compounds; Stereoisomerism of coordination compounds: Geometrical and optical isomerism in coordination complexes, Werner's Sidgwick's and Theories	Application of cisplatin in medicinal chemistry is discussed; Color of complexes based on stereoisomerism is also discussed	Lecture Method	3	Yes					

	4th Week	1+2	Valence bond theory of 6-coordination compounds **(The remaining 2 hours of classes are temporally handed over to aided faculty)**		Lecture Method	1	Yes					
	5th Week	1	Class is temporally handed over to aided faculty		Lecture Method	1	Yes					
2	**October-2021**											
	2nd Week	1+2	Valence bond theory of 4-coordination compounds (The remaining 2 hours of classes are temporally handed over to aided faculty)	Magnetic moment, spin-only formula	Lecture Method	1	Yes		Assignment was given	1	Yes	
	3rd Week (only on 11/10/21)	1	CFT of octahedral and tetrahedral complexes	Symmetry of orbitals	Lecture Method	1	Yes					
	3rd Week	Dussehra Vacation										
	4th Week	Mid-I examinations were conducted										
	5th Week	3	CFT of low-spin and high spin complexes, square	Charge transfer spectra;	Lecture Method &	3	Yes		Assignment	1	Yes	

			planar complexes; Factors affecting the magnitude of CFSE, problems on CFSE; Spectra of transition metal complexes	spin-allowed and forbidden transitions	Problems solving							
4	**November-2021**											
	1st Week	3	Magnetic properties of Transition metal complexes; Stability of coordination complexes; stability constants and factors affecting stability of complexes; Determination of composition of metal complexes (Job's method and mole-ratio method)	Existence of earth magnetism; the role of metal ions in the formation of complexes in living organisms	Lecture Method	3	Yes					
	2nd Week	2	Nitrohydrocarbons: Nomenclature, tautomerism and preparation of nitroalkanes; Reactivity of nitroalkanes	Discussed about aromatic nitro alkanes	Lecture Method	2	Yes					
	3rd Week	2	Amines: Introduction, Nomenclature and Preparations		Lecture Method	2	Yes					
	4th Week	Due to changes in the time table classes for C1 and B3 sections are allotted to me										

	4th Week	3T+2p	Preparative methods & Chemical properties		Lecture Method	3	yes					
	Dec 1th Week	3T+2p	Physical properties & Basic character of amines		Lecture Method	3	yes					
	2nd Week	3T+2p	Chemical properties		Lecture Method	3	yes				MID -II	
	3nd Week	3T+2p	Thermodynamics I&II Laws and Def of E, H, W, S & Heat capacities and their relation ships & carnot cycle		Lecture Method	3	yes					
	4th Week	3T+2p	Calculation of work done in Reversible isothermal and adiabatic expansion		Lecture Method	3	yes		Assignment	1I		

Annual Curricular Plan 2021-22 (I-B.Sc.-II- Semester – A6 & A9 sections)-SDC

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**September-2021**											
	1st Week	2	Food adulteration (Definition & common foods);		Lecture Method	2	Yes					

			Food adulterations & Types of food adulterants									
	2nd Week	II-Semester-Mid-I Examinations										
	3rd Week	2	Methods of Food adulteration & Food additives and Risks of food additives; Food Additives & Health effects of food adulteration		Lecture Method	2	Yes					
	4th Week	2	Detection of food adulterants in common foods (Milk, oil, sugar)		Lecture Method	1	Yes		Food adulteration program (work shop) was conducted (Invited Regional AGMARK laboratory chemists)	1	Yes	
	5th Week	2	Detection of food adulterants in common foods (Food grains and Spices); Present laws and procedures on adulteration (FSSAI, ISI, AGMARK)		Lecture Method	2	Yes					
2	**October-2021**											
	2nd Week (1st Half)	II-Semester-Mid-II Examinations										

	2nd Week (2nd Half)	1							Assignment	1	Yes	
	3rd Week	Dussehra Vacation										
	4th Week	2	COPRA 2019 and its features		Lecture Method	1	Yes		Sent the students to the cancer awareness program	1	Yes	
	5th Week	2	COPRA 2019: Procedure to file complaint by consumer and offences and penalties for food adulteration according to COPRA 2019; Revision of topics		Lecture Method	2	Yes		Assignment	1	Yes	
3	**November-2021**											
	1st Week	Diwali (holidays)										
	2nd Week	End Semester Examinations										
	3rd Week	End Semester Examinations										
	4th Week (1st Half)	End Semester Examinations										

Annual Curricular Plan 2021-22 (I-B.Sc.-I- Semester – A1(M.P.C.)-Section)

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**November-2021**											
	4th Week	3	Interacting with newly admitted students; discussion on basics of chemistry; Bridge		Lecture Method	2	Yes		Pre-bridge course test	1	Yes	

			Course-Atomic Structure									
	5th Week	2	Bridge Course-Atomic Structure, Mole Concept; Solutions of different concentration		Lecture Method	2	Yes					
2	**December-2021**											
	1st Week	2	Bridge Course-Chemical bonding: Ionic, covalent, coordination covalent and hydrogen bonds; VB Theory, VSEPR Theory		Lecture Method	2	Yes					
	2nd Week	3	Bridge Course-Organic Chemistry, Nomenclature of derivatives of hydrocarbons, bond cleavage and electrophilic and nucleophilic reagents Nomenclature of organic compounds		Lecture Method	2	Yes		Assignment	1	Yes	
	3rd Week	3	Discussion on Syllabus and Chemistry of p-Block elements		Lecture Method	1	Yes		Assignment	1	Yes	
									Bridge course test	1	Yes	

	4th Week (1st Half)	2	Chemistry of p-Block elements: Preparation, structure of diborane and borazine; Synthesis and preparation of siloxanes		Lecture Method	4	Yes					
	4th Week (2nd Half)	Christmas Holidays (23-12-2021 to 26-12-2021)										
	5th Week	3										
3	**January-2022**											
	1st Week											

Annual Curricular Plan 2021-22 (II-B.Sc.-III- Semester – B2(Mi.B.C.)-Section)

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**November-2021**											
	5th Week	1	Discussion on topics of syllabus		Lecture Method	1	Yes					
2	**December-2021**											

	1st Week	2	Introduction to molecular spectroscopy; Rotational spectroscopy: Principle and Theory		Lecture Method	2	Yes					
	2nd Week	3	Selection rule, frequency of rotational lines, relative intensity rotational spectral lines, determination bond length and moment of inertia		Lecture Method	2	Yes		Assignment	1	Yes	
	3rd Week	3	Rotational spectroscopy-determination bond distances of polyatomic molecules using isotopic substitution method; Vibrational spectroscopy-introduction and principle; derivation of fundamental vibrational frequency; calculation of force constant, frequency and reduced mass	Application of microwave radiation in microwave oven (internal heating)	Lecture Method	3	Yes					

	4th Week (1st Half)	2	Harmonic and anharmonic oscillators, selection rule; vibrational modes in polyatomic molecules; different types of vibrations and vibrational frequencies		Lecture Method	2	Yes					
	4th Week (2nd Half)	Christmas Holidays (23-12-2021 to 26-12-2021)										
	5th Week	3										
3	**January-2022**											
	1st Week											

Annual Curricular Plan 2021-22 (II-M.Sc.-III- Semester)

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**November-2021**											
	5th Week	1	Introduction to alkaloids		Lecture Method	1	Yes					
2	**December-2021**											
	1st Week	2	Occurrence, nomenclature, functions and isolation of alkaloids		Lecture Method	1	Yes	08/12/2021				

	2nd Week	3	Classification of alkaloids; Determination of structure of alkaloids		Lecture Method	3	Yes					
	3rd Week	3	Degradation of alkaloids		Lecture Method	2	Yes		Solving CSIR-Chemistry questions	1	Yes	
	4th Week (1st Half)	3	Structural elucidation of cinchonine		Lecture Method	3	Yes					
	4th Week (2nd Half)	Christmas Holidays (23-12-2021 to 26-12-2021)										
	5th Week	4										
3	**January-2022**											
	1st Week											

GOVERNMENT COLLEGE FOR WOMEN(AUTONOMOUS)

GUNTUR

ANNUAL ACADEMIC CURRICULAR PLAN

2020-21

nt of BIOCHEMISTRY

r : D. VIJAYA SREE

D. VijayaSree, Lecturer in Biochemistry, Govt. College for Women (Autonomous), Guntur

Semester III PaperIII Bioenergetics and Bioanalytical techniques

Month, Week&No. of Hours	Syllabus / Topic	Additional input/ Value addition provided / taught	Name of curricular Activity conducted., date &hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date &hrs allotted	If not alternate date	Any other
	Unit-III **Bioanalytical Techniques – I (Separation)** • Homogenization - Methods (Potter - Elvejham, mechnical blender, sonicator and enzymatic methods). • Centrifugation – Types of centrifuges (desktop, high speed, ultra centrifuge); • Principle and applications of - differential, density gradient and ultracentrifugation- preparative and analytical.		Demonstration Demonstration		Notes preparation Notes preparation		
	Unit-IV **Bioanalytical Techniques – II (Separation)** • Chromatography – Principle, method and applications of paper (Ascending, descending & radial) • Thin layer & gel filtration chromatography	2D chromatography Method	Practical -3, demonstration -2 Practical -3, demonstration -2		PPT-1 ManaTV class at SAP Net Studio Hyderabad 30/7/2019		

ıth, Week& No. of Hours	Syllabus / Topic	Additional input/ Value addition provided / taught	Name of curricular Activity conducted., date &hrs allotted	If not alternat e date	Name of co-curricular Activity conducted., date &hrs allotted	If not alternate date	Any other
	• Principle and applications - ion exchange • Affinity and HPLC • Electrophoresis – Principle and applications of paper, polyacrylamide (native and SDS) • Aagarose gel electrophoresis	Method Method Method Method	Demonstration -2 Demonstration -2		PPT-1		
	Unit –V **Bioanalytical Techniques – III (Identification)** • Colorimetry and Spectrophotometry- Laws of light absorption- Beer-Lambert law; molar extinction coefficient; • UV and visible absorption spectra • Principle, instrumentation & applications of spectrophotometer. • Tracer techniques – Radio isotopes, units of radio activity, half life, β and γ- emitters, applications of radioactive isotopes in biology.	Monochromator – filters, grating	Demonstration		Assignment		

nth, k&No. Hours	Syllabus / Topic	Additional input/ Value addition provided / taught	Name of curricular Activity conducted., date &hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date &hrs allotted	If not alternate date	Any other
	• Techniques employed in metabolic studies - Tissue slice techniques; homogenates and purified enzyme systems; isotope tracer studies, use of inhibitors and antimetabolites.				Assignment		
	Unit- I Bioenergetics • Thermodynamic principles – Chemical equilibria • Free energy, enthalpy (H), entropy (S). • Free energy change in biological transformations in living systems. • High energy compounds, Substrate level Phosphorylation., Red-ox reactions	Free energy Concept exergonic and endergonic reactions					
	Unit- II: **Biological Oxidations in Mitochondria** • Organization of electron carriers and enzymes in mitochondria.				PPT		

th, &No. Hours	Syllabus / Topic	Additional input/ Value addition provided / taught	Name of curricular Activity conducted., date &hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date &hrs allotted	If not alternate date	Any other
	• Electron Transport Chain : complexes of electrontransferring enzymes, sequence of electron flow in complexes, inhibitors of ETC	Ultra structure of Mitochondria			PPT/ Animation		
	• Oxidative phosphorylation – Mechanism (brief account on chemiosmotic hypothesis), uncouplers and inhibitors of oxidative phosphorylation.	Electron carriers			PPT/ Animation		

Signature of Lecturer

signature of Incharge

V.R.

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GOVT. COLLEGE FOR WOMEN (AUTONOMOUS) GUNTUR

DEPARTMENT OF ENGLISH

CURRICULAR PLANS OF DR. K. PADMAJA FOR 2021-2022

COMMUNICATIVE ENGLISH SEM.1,3&5

Government College for Women, Guntur;

Curricular Plan – Lecturer-Wise (Communicative English Semester 1)

Department: English

Name of the Lecturer: Dr.K.Padmaja

Month: Jan 2022

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	alternate date	Activity	Hours	Whether conducted	If not alternate date	
1	Jan 1st week	1	I CE (sem 1)	Phonology		Identification of phoneme in a language	1	yes	-	-	-	-	-	-
2	2nd week	3	I CE (sem 1)	Phonology	Telugu phonemic system	Distinction of phoneme And allophones	2	yes	-	Minimal pair game	1	yes	-	
3	3rd week	1	I CE (sem 1)	Speech mechanism- organs of speech		Video and picture presentation	1	yes	-	-	-	-	-	-
4	4th week	5	I CE (sem 1)	Place of articulation		Video and picture presentation	2	yes	-	Identification and naming for all consonants	3	yes	-	-
5	5th week	4	I CE (sem 1)	manner of articulation		Video and picture presentation	2	yes	-	identification of stricture in consonants	2	yes	-	-

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Government College for Women, Guntur:

Curricular Plan – Lecturer-Wise (Communicative English Semester 1)

Department : English

Name of the Lecturer :Dr. K.Padmaja

Month : December 2021

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not. alternate date	Activity	Hours allotted	Whether conducted	If not. alternate date	
1	Dec. 1st week	4	I CE (sem 1)	Introductory week, timetable, syllabus, model paper discussion, Academic Calendar Course Outcomes, Bridge course		Timetable, outcomes, Bridge course- 3 topics	1+3	yes	-	-	-	-	-	-
2	Dec 2nd week	4	I CE (sem	Bridge course, Animal and Human Communication,		Bridge course- 3 topics Features of animal and human communication	3+1	yes	-	-	-	-	-	-
3	Dec 3rd week	5	I CE (sem 1)	Theories of origins of Language Aspects of Language	Role of archeology and ethnography in tracing the origins of language	Lecture presentation	2	yes	-	Question and answer and eliciting	2	yes	--	--
4	Dec 4th week	2	I CE (sem 1)	Language Functions		Lecture presentation	2	yes	-	-	-	-	-	-
5	Dec 5th week	4	I CE (sem 1)	Language Functions		Worksheet on different functions	1	yes	-	Speaking, fill in the blanks and matching	3	yes	-	-

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GOVT. COLLEGE FOR WOMEN (A)
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Government College for Women, Guntur:

Curricular Plan – Lecturer-Wise (Communicative English Semester 1)

Department : English

Name of the Lecturer :Dr.K.Padmaja

Month : Jan 2022

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	alternate date	Activity	Hours	Whether conducted	If not. alternate date	
1	Jan 1st week	1	I CE (sem 1)	Phonology		Identification of phoneme in a language	1	yes	-	-	-	-	-	-
2	2nd week	3	I CE (sem 1)	Phonology	Telugu phonemic system	Distinction of phoneme And allophones	2	yes	-	Minimal pair game	1	yes	--	
3	3rd week	1	I CE (sem 1)	Speech mechanism- organs of speech		Video and picture presentation	1	yes	-	-	-	-	-	-
4	4th week	5	I CE (sem 1)	Place of articulation		Video and picture presentation	2	yes	-	Identification and naming for all consonants	3	yes	-	-
5	5th week	4	I CE (sem 1)	manner of articulation		Video and picture presentation	2	yes	-	Identification of stricture in consonants	2	yes	-	-

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Government College for Women, Guntur

Curricular Plan – Lecturer-Wise (Communicative English Semester 1)

Department : English

Name of the Lecturer : Dr. K.Padmaja

Month : Feb-2022

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	alternate date	Activity	Hours	Whether conducted	Alternate date	
1	Feb 1st week	4	I CE (sem 1)	Vowels and consonants of English	Vowels and consonants of Telegu	Flash card activity for identification	2		-	Symbol writing	2		-	-
2	2nd week	3	I CE (sem 1)	Aspects of listening, Barriers to listening		Lecture presentation	1		-	Practical listening activities	2			
3	3rd week	5	I CE (sem 1)	Traits of a good listener, Listening types- purposeful listening bottom up listening		Lecture presentation	2		-	Practical listening activities	3			
4	4th week	5	I CE (sem 1)	**Habits of good readers, reading skills and strategies**		Lecture presentation	1			Practical reading activities	4			
5	5th week	1	I CE (sem 1)	***reading for pleasure***		-	-	-	-	Practical activity	1			

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Government College for Women, Guntur:

Curricular Plan – Lecturer-Wise (Communicative English Semester 1)

Department : English

Name of the Lecturer : Dr.K.Padmaja

Month : March 2022

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	Mar. 1st week	4	I CE (sem 1)	Reading for comprehension, sequencing of ideas, Language functions for speaking,		lecture	1			Practical reading and speaking	3			
2	2nd week	4	I CE (sem 1)	bottom-up speaking skills		lecture	1			Practical activities	3			
3	3rd week	4	I CE (sem 1)	Accuracy and fluency in structure and pronunciation		lecture	2			Practical activities	2			
4	4th week	5	I CE (sem 1)	Situational conversation, formal		lecture	2			Practical activities	3			
5	5th week	3	I CE (sem 1)	Situational conversation, informal		lecture	1			Practical activities	2			

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Government College for Women, Guntur:
Curricular Plan – Lecturer-Wise (Communicative English Semester 3)

Department : English

Name of the Lecturer :Dr. K.Padmaja

Month : December 2021

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	Dec. 1st week	4	II CE (sem 3)	Introductory week, timetable, syllabus, model paper discussion, Academic Calendar Course Outcomes, Bridge course		Recap of tenses predictions	2	yes		Practice with worksheets	2			
2	Dec 2nd week	4	II CE (sem 3)	Asking Questions		Structure and function of yes/no and wh questions	2	yes		Speaking and writing activities	2			
3	Dec 3rd week	5	II CE (sem 3)	Linkers, Simple, Compound and Complex		Types of linkers and functions - explanation	2			Practice worksheets	3			
4	Dec 4th week	2	II CE (sem 3)	Simple, Compound and Complex		Use of linkers in transforming sentences	1			Practice worksheets	1			
5	Dec 5th week	4	II CE (sem 3)	Picture Description		Vocabulary and form eliciting	2			Practice worksheets	2			

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Government College for Women, Guntur:
Curricular Plan – Lecturer-Wise (Communicative English Semester 3)

Department : English
Name of the Lecturer :Dr.K.Padmaja
Month : Jan 2022

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topi)	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not. alternate date	Activity	Hours allotted	Whether conducted	If not. alternate date	
1	Jan 1st week	1	II CE (sem 3)	Describing people and places		Vocabulary and structure elicitation for people	1							
2	2nd week	3	II CE(sem 3)	Describing people and places		Vocabulary and structure elicitation for places	1			Worksheet for describing people	2			
3	3rd week	1	II CE(sem 3)	Describing places						Worksheet for describing places	1			
4	4th week	5	II CE(sem 3)	**Narrating events and experiences**		Vocabulary and structure elicitation for narration of events	2			Worksheet for narrating events	3			
5	5th week	4	II CE(sem 3)	**Narrating events and experiences**		Vocabulary and structure elicitation for narration of experiences	1			Worksheet for narrating experiences	3			

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Government College for Women, Guntur:
Curricular Plan – Lecturer-Wise (Communicative English Semester 3)

Department : English

Name of the Lecturer :Dr.K.Padmaja Month : Feb-2022

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	Feb 1st week	4	II CE(sem 3)	Storytelling and JAM		Vocabulary and structure elicitation for story telling and Rubric for JAM	1			Worksheet for story telling Speaking and story telling	3			
2	2nd week	3	II CE(sem 3)	Presentation skills		Tips and ideas for presentation	1			Worksheet and presentation	2			
3	3rd week	5	II CE(sem 3)	Group discussion		Case study for features of GD	1			Worksheet for language structure in GD and Sample GD	4			
4	4th week	5	II CE(sem 3)	Note making		Lecture explanation with samples	2			Worksheets in note making	3			
5	5th week	1	II CE(sem 3)	**Writing notices and circulars**		Explanation with samples	1							

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Government College for Women, Guntur:
Curricular Plan – Lecturer-Wise (Communicative English Semester 3)

Department : English

Name of the Lecturer : Dr.K.Padmaja

Month : March 2022

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic(as per the University)	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	March 1st week	4	II CE(sem 3)	**Writing notices and circulars Agenda and meeting minutes**	Explanation and eliciting the structure and vocabulary used in Agenda and minutes	1				Worksheets for notices and circulars, agenda and minutes	3			
2	2nd week	4	II CE(sem 3)	**Writing Advertisements**	Vocabulary and form discussion	1				Worksheets in writing Ads	2			
3	3rd week	4	II CE(sem 3)	Telephone conversations formal and informal	Explanation with samples	2				Worksheets	2			
4	4th week	5	II CE(sem 3)	Summarizing poems Paraphrasing prose	Steps in summarising and paraphrase-explanation	2				Writing summary and paraphrase	3			
5	5th week	3	II CE(sem 3)	Summarizing poems Paraphrasing prose	Discussion with sample summary and paraphrase					Student writing and presentation	2			

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Government College for Women, Guntur:

Curricular Plan – Lecturer-Wise (Communicative English Semester 5, paper 6)

Department : English

Name of the Lecturer :Dr. K.Padmaja

Month : Oct 2021

S No.	Month & week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	hours allotted	Whether conducted	If not, alternate date	Activity	hours allotted	Whether conducted	If not, alternate date	
1	Oct. 1st week	1	III CE (sem 5, paper 6)	Theories of Second Language Acquisition		Introductory explanation	1							
2	2nd week	3	III CE (sem 5, paper 6)	Behaviourism	Pavlovs experiments	Lecture explanation	2			Summarising the theory	1			
3	3rd week	1	III CE (sem 5, paper 6)	Universal Grammar Theory		Lecture explanation	1							
4	4th week	5	III CE (sem 5, paper 6)	Monitor theory		Lecture explanation	3			Application to ELT context by writing	2			
5	5th week	5	III CE (sem 5, paper 6)	Cognitivism – Motivation Scaffolding techniques		Lecture explanation	3			Application to ELT context by writing	2			

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Government College for Women, Guntur:

Curricular Plan – Lecturer-Wise (Communicative English Semester 5, paper 6)

Department : English

Name of the Lecturer :Dr.K.Padmaja

Month : Nov-21

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	Nov 1st week	4	III CE (sem 5, paper 6)	Methods of Teaching English Audio Lingual Method	Historical perspectives on ELT	Lecture explanation	2			Application to ELT classroom through case study	2			
2	2nd week	4	III CE (sem 5, paper 6)	Structural Approach- Grammar Translation Method		Lecture explanation	2			Application to ELT classroom through case study	2			
3	3rd week	5	III CE (sem 5, paper 6)	Oral Approach – Situational Approach		Lecture explanation	2			Application to ELT classroom through case study	3			
4	4th week	5	III CE (sem 5, paper 6)	Direct Method — Bilingual Method		Lecture explanation	2			Application to ELT classroom through case study	3			
5	5th week	2	III CE (sem 5, paper 6)	Communicative Method - Eclectic Approach		Lecture explanation	1			Application to ELT classroom through case study	1			

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Government College for Women, Guntur

Curricular Plan – Lecturer-Wise (Communicative English Semester 5, paper 6)

Department : English

Name of the Lecturer : Dr. K.Padmaja

Month : Dec- 20

S. No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	Dec 1st week	3	III CE (sem 5, paper 6)	Learning Styles and Multiple Intelligences		Sample analysis	1			Self evaluation through survey and quiz	2			
2	2nd week	4	III CE (sem 5, paper 6)	Audio-Visual Aids		Demonstration of AIDS	2			Student presentation on their use	2			
3	3rd week	5	III CE (sem 5, paper 6)	Activity Based Language Teaching		Lecture explanation	2			Designing Language teaching activities	2			
4	4th week	2	III CE (sem 5, paper 6)	Content Vs Activities Lesson Planning and Evaluation		Lecture explanation	1			Compare and contrast	1			
5	5th week	4	III CE (sem 5, paper 6)	Planning Lessons for Prose, Poetry and Grammar		Study of sample lesson plans and discussion	2			Writing lesson plans	2			

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Government College for Women, Guntur:

Curricular Plan – Lecturer-Wise (Communicative English Semester , paper 6)

Department : English

Name of the Lecturer : Dr.K.Padmaja

Month : Jan- 22

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity			
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date
1	Jan 1st week	4	III CE (sem 5, paper 6)	Introduction to Testing and Evaluation Internal and External Evaluation		Lecture explanation	2			Analysis and presentation on various types of tests	2		
2	2nd week	4	III CE (sem 5, paper 6)	Types of Tests		Sample analysis and discussion	2			Summarizing the features of Tests	2		
3	3rd week	1	III CE (sem 5, paper 6)	Presenting the model lessons		Steps in a lesson	1			Demonstrating the lessons designed			
4	4th week	5	III CE (sem 5, paper 6)	Presenting the model lessons						Demonstrating the lessons designed	5		
5	5th week		III CE (sem 5, paper 6)	Semester end exams									

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GOVT. COLLEGE FOR WOMEN (A)

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Government College for Women, Guntur:

Curricular Plan – Lecturer-Wise (Communicative English Semester 5, paper 6)

Department : English

Name of the Lecturer :Dr.K.Padmaja

Month : Dec- 21

S No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	Dec 1st week	3	III CE (sem 5, paper 6)	Learning Styles and Multiple Intelligences		Sample analysis	1			Self application through survey and quiz	2			
2	2nd week	4	III CE (sem 5, paper 6)	Audio-Visual Aids		Demonstration of AIDS	2			Student presentations on their use	2			
3	3rd week	5	III CE (sem 5, paper 6)	Activity Based Language Teaching		Lecture explanation	2			Designing Language teaching activities	2			
4	4th week	2	III CE (sem 5, paper 6)	Content Vs Activities Lesson Planning and Evaluation		Lecture explanation	1			Compare and contrast	1			
5	5th week	4	III CE (sem 5, paper 6)	Planning Lessons for Prose, Poetry and Grammar		Study of sample lesson plans and discussion	2			Writing lesson plans	2			

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(Autonomous)-GUNTUR. 1942 (Established)

Centre with Potential for Excellence

ANNUAL ACADEMIC PLAN

2021-22

Submitted by

Dr. D. MALLIKARJUNA REDDY
Assistant Professor
Department of Chemistry

Annual Curricular Plan 2021-22: I-B.Sc.-I- Semester – A1(M.P.C.)-Section

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**November-2021**											
	1st Week	4	**Bridge Course-** Atomic Structure; Bridge Course- Chemical bonding: Ionic, covalent, coordination covalent and hydrogen bonds; VB Theory, VSEPR Theory		Lecture Method	4	Yes		Pre-bridge course test	1	Yes	
		2	Analysis of mixture of salts		Practical	2	Yes					
	2nd Week	3	**Bridge Course-** Organic Chemistry, Nomenclature of derivatives of hydrocarbons, bond cleavage and electrophilic and nucleophilic reagents Nomenclature of organic compounds		Lecture Method	4	Yes		Bridge course test	1	Yes	
		2	Analysis of mixture of salts		Practical	2	Yes					

	3rd Week	4	Discussion on Syllabus **Unit-I: Chemistry of p-Block elements:** Preparation, structure of diborane and borazine; Synthesis and preparation of siloxanes; Preparation, structure and uses of silicones;		Lecture Method	4	Yes		Assignment			
		2	Analysis of mixture of salts		Practical	2	Yes					
	4th Week	4	**Chemistry of p-Block elements:** Phosphonitrilic halides; Oxides and oxyacids of sulfur (structure only); Interhalogen compounds; Pseudohalogens;		Lecture Method	4	Yes					
		2	Analysis of mixture of salts		Practical	2	Yes					
	5th Week	2	**Unit-II: Chemistry of d-block elements:** Electronic configuration; Variable oxidation states, stability of oxidation states.		Lecture Method	2	Yes		Assignment			

2	**December-2021**											
	1st Week	2	**Unit-II: Chemistry of d-block elements:** Complex formation, color and catalytic properties of d-block elements Magnetic properties of d-block elements;		Lecture Method	2	Yes					
		2	Analysis of mixture of salts		Practical	2	Yes					
	2nd Week	3	**Unit-II:** Introduction and electronic configuration and oxidation states; Lanthanide and actinide contractions and its consequences;		Lecture Method	3	Yes					
		2	Analysis of mixture of salts		Practical	2	Yes					
	3rd Week	4	**Unit-II: Chemistry of f-Block elements:** Magnetic properties of f-block elements **Unit-II: Bonding in Metals:** General properties of metals and free-electron theory, V.B.		Lecture Method	4	Yes		Student seminar	1	Yes	

			theory, band theory of metallic bonding									
		2	Analysis of mixture of salts		Practical	2	Yes					
	4th Week	2	**Unit-II: Bonding in Metals:** Conductors, semiconductors and insulators **Unit-III: Solid State:** Symmetry in crystals		Lecture Method	2	Yes					
		2	Analysis of mixture of salts		Practical	2	Yes					
	5th Week	2	**Unit-III: Solid State:** Law of constancy of interfacial angles. The law of rationality of indices. The law of symmetry. Miller indices		Lecture method	2	Yes		Assignment			
		2	Analysis of mixture of salts		Practical	2	Yes					
		Mid-I examinations										
3	**January-2022**											
	2nd Week	3	**Unit-III: Solid State:** Definition of lattice point, space lattice, unit cell. Bravais lattices and crystal systems.		Lecture method	3	Yes		Assignment			

			X-ray diffraction and crystal structure. Bragg's law. Powder method.									
		2	Analysis of mixture of salts		Practical	2	Yes					
	3rd Week	2	**Unit-III: Solid State:** Defects in crystals. Stoichiometric and non-stoichiometric defects.		Lecture method	3	Yes					
	4th Week	4	**UNIT-IV: Gaseous State:** van der Waal's equation of state. Andrew's isotherms of carbon dioxide, continuity of state. Critical phenomena. Relationship between critical constants and vander Waal's constants.		Lecture method	4	Yes		Assignment			
		2	Analysis of mixture of salts		Practical	2	Yes					
	5th Week	4	**UNIT-IV: Gaseous State:** Law of corresponding states. Joule-Thomson effect.		Lecture method	4	Yes					

			Inversion temperature. **UNIT-IV: Liquid State:** Liquid crystals,mesomorphicstate. Differences between liquid crystal and solid/liquid.									
		2	Analysis of mixture of salts		Practical	2	Yes					
4	**February-2022**											
	1st Week	3	**UNIT-IV: Liquid State:** Classification of liquid crystals into Smectic and Nematic. Application of liquid crystals as LCD devices. **UNIT-V: Solutions, Ionic equilibrium& dilute solutions:** Ionic product, common ion effect, solubility and solubility product. Calculations based on solubility product.		Lecture method	3	Yes		Quiz			
		2	Analysis of mixture of salts		Practical	2	Yes					

	2nd Week	4	**UNIT-V:** **Solutions, Ionic equilibrium& dilute solutions:** Azeotropes-HCl-H2O system and ethanol-water system. Partially miscible liquids-phenol-water system. Critical solution temperature (CST), Effect of impurity on consulate temperature.		Lecture method	4	Yes		Assignment			
		2	Analysis of mixture of salts		Practical	2						
	3rd Week	4	**UNIT-V:** **Solutions, Ionic equilibrium& dilute solutions:** Immiscible liquids and steam distillation. Nernst distribution law. Calculation of the partition coefficient. Applications of distribution law. Colligative properties- RLVP, Osmotic pressure, Elevation in boing point and		Lecture method	4						

			depression in freezing point.									
		2	Analysis of mixture of salts		Practical	2						
	4th Week	2	**UNIT-V: Solutions, Ionic equilibrium& dilute solutions:** Experimental methods for the determination of molar mass of a non-volatile solute using osmotic pressure, Elevation in boing point and depression in freezing point.		Lecture method	4			Students Seminar			
		Mid-II examinations										
5	**March-2022**											
	1st Week	3	**UNIT-V: Solutions, Ionic equilibrium& dilute solutions:** Abnormal colligative properties. Van't Hoff factor. **Remedial Classes**		Lecture method	4						
		2	Analysis of mixture of salts		Practical	2						
	2nd Week	**End Semester Examinations**										

Annual Curricular Plan 2021-22: I-B.Sc.-II- Semester – A1(M.P.C.)-Section

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**March-2021**											
	3rd Week	4	**Recapitulation of Basics of Organic Chemistry Unit-I: Carbon-Carbon sigma bonds (Alkanes and Cycloalkanes):** General methods of preparation of alkanes- Wurtz and Wurtz-Fittig reaction, Corey House synthesis, physical and chemical properties of alkanes, Isomerism and its effect on properties,		Lecture Method	4						
		2	Volumetric Analysis		Practical	2						
	4th Week	4	**Unit-I: Carbon-Carbon sigma bonds (Alkanes and Cycloalkanes):**		Lecture Method	4			Assignment			

			Free radical substitutions; Halogenation, concept of relative reactivity v/s selectivity. Conformational analysis of alkanes (Conformations, relative stability and energy diagrams of Ethane, Propane and butane).									
		2	Volumetric Analysis		Practical	2						
	5th Week	3	**Unit-I: Carbon-Carbon sigma bonds (Alkanes and Cycloalkanes):** General molecular formulae of cycloalkanes and relative stability, Baeyer strain theory, Cyclohexane conformations with energy diagram, Conformations of monosubstituted cyclohexane.		Lecture Method	4			Assignment			
		2	Volumetric Analysis		Practical	2						

2	**April-2022**											
	2nd Week	3	**UNIT-II: Carbon-Carbon pi Bonds (Alkenes and Alkynes):** General methods of preparation, physical and chemical properties. Mechanism of E1,E2,E1cb reactions, Saytzeff and Hoffmann eliminations, Electrophilic Additions, mechanism(Markownikoff/Antimarkownikoff addition) with suitable examples.		Lecture Method	4			Assignment			
		2	Volumetric Analysis		Practical	2						
	3rd Week	4	**UNIT-II: Carbon-Carbon pi Bonds (Alkenes and Alkynes):** Syn and anti-addition, addition of H2, X2, HX, oxymercuration-demercuration. hydroboration-oxidation,		Lecture Method	4						

			ozonolysis, hydroxylation, Diels Alder reaction,1,2- and1,4-addition reactions in conjugated dienes.									
		2	Volumetric Analysis		Practical	2						
	4th Week	4	**UNIT-II: Carbon-Carbon pi Bonds (Alkenes and Alkynes):** Reactions of alkynes; acidity, electrophilic and nucleophilic additions, hydration to form carbonyl compounds, Alkylation of terminal alkynes.		Lecture Method	4			Assignment			
		2	Volumetric Analysis		Practical	2						
		Mid-I examinations										
3	**May-2022**											
	1st Week	4	**Unit-III: Benzene and its reactivity:** Concept of aromaticity, Huckel's rule - application to Benzenoid (Benzene,		Lecture Method	4						

			Naphthalene) and Non - Benzenoid compounds (cyclopropenylcation, cyclopentadienyl anion and tropyliumcation)									
		2	Volumetric Analysis		Practical	2						
	2nd Week	4	**Unit-III: Benzene and its reactivity:** Reactions - General mechanism of electrophilic aromatic substitution, mechanism of nitration, Friedel-Craft's alkylation and acylation. Orientation of aromatic substitution - ortho, para and meta directing groups.		Lecture Method	4			Quiz			
		2	Volumetric Analysis		Practical	2						
	3rd Week	4	**Unit-III: Benzene and its reactivity:** Ring activating and deactivating groups with examples		Lecture Method	4						

			(Electronic interpretation of various groups like NO_2 and Phenolic). Orientation of (i) amino, methoxy and methyl groups (ii) Carboxy, nitro, nitrile, carbonyl and sulphonic acid groups (iii) Halogens									
		2	Volumetric Analysis		Practical	2						
	4th Week	2	**UNIT-IV: Surface chemistry and chemical bonding: Colloids-** Coagulation of colloids- Hardy-Schulze rule. Stability of colloids, Protection of Colloids, Gold number.		Lecture Method	2			Students Seminar			
		2	Volumetric Analysis		Practical	2						
		Mid-II Examinations										

	5th Week	2	**UNIT-IV: Surface chemistry and chemical bonding: Colloids-Adsorption-** Physical and chemical adsorption, Langmuir adsorption isotherm, applications of adsorption.									
4	**June-2022**											
	1st Week	2	**UNIT-IV: Chemical Bonding:** Valence bond theory, hybridization, VB theory as applied to ClF_3**,** $Ni(CO)_4$**,**		Lecture Method	2						
		2	Volumetric Analysis		Practical	2						
	2nd Week	4	**UNIT-IV: Chemical Bonding:** Molecular orbital theory -LCAO method, construction of M.O. diagrams for homo-nuclear and hetero-nuclear diatomic		Lecture Method	4			Assignment			

			molecules (N2, O2, CO and NO). **Unit-IV: HSAB:** Pearson's concept, HSAB principle & its importance, bonding in Hard-Hard and Soft-Soft combinations.									
		2	Volumetric Analysis		Practical	2						
	3rd Week	4	**Unit-V: Stereochemistry of carbon compounds:** Molecular representations-Wedge, Fischer, Newman and Saw-Horse formulae. Optical isomerism: Optical activity-wave nature of light, plane polarised light, optical rotation and specific rotation.		Lecture Method	4						
		2	Volumetric Analysis		Practical	2						
	4th Week	4	**Unit-V: Stereochemistry of carbon compounds:**						Students Seminar			

			Chiral molecules-definition and criteria (Symmetry elements)- Definition of enantiomers and diastereomers – Explanation of optical isomerism with examples- Glyceraldehyde, Lactic acid, Alanine, Tartaric acid, 2,3-dibromopentane. D,L, R,S and E,Z-configuration with example									
		2	Volumetric Analysis		Practical	2						
	5th Week	3	**Unit-V: Stereochemistry of carbon compounds:** Definition of Racemic mixture – Resolution of racemic mixtures (any 3 techniques) and **Remedial Classes**						Assignment			
5	**July**											
	1st Week	**End Semester Examinations**										

Govt. College for Women

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Centre with Potential for Excellence

ANNUAL ACADEMIC PLAN

2021-22

Submitted by

Dr. D. MALLIKARJUNA REDDY
Assistant Professor
Department of Chemistry

Annual Curricular Plan 2021-22 (II-B.Sc.-III- Semester – B2 (Mi.B.C.)-Section)

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**November-2021**											
	5th Week	1	Discussion on topics of syllabus		Lecture Method	1	Yes					
2	**December-2021**											
	1st Week	3	**Unit-IV: Molecular Spectroscopy:** Introduction to molecular spectroscopy; Rotational spectroscopy: Principle and Theory Selection rule, frequency of rotational lines, relative intensity rotational spectral lines, determination bond length and moment of inertia		Lecture Method	3	Yes					
		2	Organic Preparations		Practical	2	Yes					

	2nd Week	3	**Unit-IV: Molecular Spectroscopy:** Rotational spectroscopy-determination bond distances of polyatomic molecules using isotopic substitution method; Vibrational spectroscopy-introduction and principle; derivation of fundamental vibrational frequency; calculation of force constant, frequency and reduced mass	Application of microwave radiation in microwave oven (internal heating)	Lecture Method	3	Yes		Assignment	1	Yes	
		2	Organic Preparations		Practical	2	Yes					
	3rd Week	2	**Unit-IV: Molecular Spectroscopy:** Harmonic and anharmonic oscillators, selection rule; vibrational modes in polyatomic molecules; different types of vibrations and		Lecture Method	2	Yes					

			vibrational frequencies Types of IR bands, IR bands in water, co2 molecules									
		Mid-I Examinations										
		2	Organic Preparations		Practical	2						
	4th Week	2	**Unit-V: Applications of IR spectroscopy;** Applications IR Spectroscopy for organic functional groups Interpretation of IR spectra of organic compounds		Lecture Method	2			Assignment			
		2	Organic Preparations		Practical	2						
	5th Week	3	**Unit-IV: Molecular Spectroscopy:** Franck-Condon principle and electronic energy levels in organic molecules; Types of electronic transitions, commons terms used in electronic spectra;		Lecture Method	3						
		2	Organic Preparations		Practical	2						

3	**January-2022**											
	2nd Week	4	**Unit-V: Applications of UV-Vis spectroscopy;** Calculation of lambda maximum of dienes, alpha, beta-unsaturated ketones by Woodward fieser's rules; Beer's law; Introduction to NMR Spectroscopy;		Lecture Method	4			Students Seminar			
		2	Organic Preparations		Practical	2						
	3rd Week	2	**Unit-IV: Molecular Spectroscopy:** Theory and Principle of NMR Spectroscopy; equivalent and non-equivalent protons, position of signals.		Lecture Method	2			Assignment			
		2	Organic Preparations		Practical	2						
4	**February-2022**											
	1st Week	3	**Unit-IV: Molecular Spectroscopy:**		Lecture Method	3						

			Chemical shift, NMR splitting of signals - spin-spin coupling, coupling constants. Applications of NMR with suitable examples - ethyl bromide, ethanol, acetaldehyde, 1,1,2-tribromo ethane, ethyl acetate, toluene and acetophenone.									
		2	Organic Preparations		Practical	2						
	2nd Week	4	**Unit-I Chemistry of Halogenated Hydrocarbons:** Alkyl halides: Methods of preparation and properties, nucleophilic substitution reactions; SN1, SN2 and SNi mechanisms with stereochemical aspects and effect of solvent; nucleophilic substitution vs elimination; Williamson's synthesis; Aryl		Lecture Method	4			Assignment			

			halides: Preparation(including preparation from diazoniumsalts) and properties, nucleophilic aromatic substitution; SNAr, Benzyne mechanism.									
		2	Organic Preparations		Practical	2						
	3rd Week	4	**Unit-I Chemistry of Halogenated Hydrocarbons:** Relative reactivity of alkyl, allyl, benzyl, vinyl and aryl halides towards nucleophilic substitution reactions. **Unit-I: Alcohols & Phenols** Alcohols: preparation, properties and relative reactivity of 1^o, 2^o, 3^o alcohols; Bouvaelt-Blanc Reduction; Oxidation of diols by periodic acid and lead tetra acetate, Pinacol-		Lecture Method	4						

			Pinacolone rearrangement;									
		2	Organic Preparations		Practical	2						
	4th Week	2	**Unit-I: Alcohols & Phenols** Phenols: Preparation and properties; Acidity and factors effecting it, Ring substitution reactions, Reimer–Tiemann and Kolbe's–Schmidt Reactions, Fries and Claisen rearrangements with mechanism		Lecture Method	2			Assignment			
		2	Organic Preparations		Practical	2						
		Mid-II examinations										
5	**March-2022**											
	1st Week	3	**Unit-II Carbonyl Compounds:** Structure, reactivity, preparation and properties; Nucleophilic additions, Nucleophilic addition-elimination reactions with		Lecture Method	3						

			ammonia derivatives									
		2	Organic Preparations		Practical	2						
	2nd Week	3	**Unit-II Carbonyl Compounds:** Mechanisms of Aldol and Benzoin condensation, Claisen-Schmidt, Perkin, Cannizzaro and Wittig reaction, Beckmann haloform reaction and Baeyer Villiger oxidation, α-substitution reactions, oxidations and reductions (Clemmensen, wolf–kishner, with LiAlH4 & NaBH4).		Lecture Method	3			Assignment			
		2	Organic Preparations		Practical	2						
	3rd Week	4	**Unit-II Carbonyl Compounds:** Addition reactions of α,β-unsaturated carbonyl compounds: Michael addition. Active methylene compounds: Keto-enol tautomerism.		Lecture Method	4						

			Preparation and synthetic applications of diethyl malonate and ethylacetoacetate.									
		2	Organic Preparations		Practical	2						
	4th Week	4	**UNIT-III: Carboxylic Acids and their Derivatives** General methods of preparation, physical properties and reactions of monocarboxylic acids, effect of substituents on acidic strength. Typical reactions of dicarboxylic acids, hydroxyl acids and unsaturated acids.		Lecture Method	4			Quiz			
		2	Organic Preparations		Practical	2						
	5th Week	3	**UNIT-III: Carboxylic Acids and their Derivatives:** Preparation and reactions of acid chlorides, anhydrides, esters and amides; Comparative		Lecture Method	4			Assignment			

			study of nucleophilic substitution at acyl group- Mechanism of acidic and alkaline hydrolysis of esters, Claisen condensation, Reformatsky reactions and Curtius rearrangement									
		2	Organic Preparations		Practical	2						
6	**April-2022**											
	1st Week	4	**UNIT-III: Carboxylic Acids and their Derivatives:** Reactions involving H, OH and COOH groups- salt formation, anhydride formation, acid chloride formation, amide formation and esterification (mechanism). Degradation of carboxylic acids by Huns-Diecker reaction, decarboxylation						Students Seminar			

			by Schimdt reaction, Arndt-Eistert synthesis, halogenation by Hell- Volhard-Zelinsky reaction.									
		2	Organic Preparations		Practical	2						
	2nd Week	**End Semester Examinations**										

Annual Curricular Plan 2021-22 (II-B.Sc.-IV- Semester – B2 (Mi.B.C.)-Section)

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**April-2022**											
	3rd Week	4	**Unit-I: Coordination Chemistry** IUPAC nomenclature of coordination compounds, Structural and stereoisomerism in complexes with coordination numbers 4 and 6. Valence Bond Theory (VBT): Inner and outer orbital complexes. Limitations of VBT.		Lecture Method	4						
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	4th Week	4	**Unit-I: Coordination Chemistry:** Crystal field effect, octahedral symmetry. Crystal field stabilization		Lecture Method	4						

			energy (CFSE), Crystal field effects for weak and strong fields. Tetrahedral symmetry, Factors affecting the magnitude of crystal field splitting energy, Spectrochemical series,									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
2	**May-2022**											
	1st Week	3	**Unit-I: Coordination Chemistry:** Comparison of CFSE for Octahedral and Tetrahedral complexes, Tetragonal distortion of octahedral geometry, Jahn-Teller distortion, square planar coordination.		Lecture Method	3	Yes					
		2	Conductometric and Potentiometric Titrimetry		Practical	2	Yes					

	2nd Week	4	**UNIT –II: Inorganic Reaction Mechanism**: Introduction to inorganic reaction mechanisms. Concept of reaction pathways, transition state, intermediate and activated complex. Labile and inert complexes, ligand substitution reactions - SN1 and SN2,Substitutionr eactionsinsquare planar complexes, Trans-effect, theories of trans effect and its applications		Lecture Method	4	Yes		Assignment	1	Yes	
		2	Conductometric and Potentiometric Titrimetry		Practical	2	Yes					
	3rd Week	2	**UNIT –II: Stability of metal complexes:** Thermodynamic stability and kinetic stability, factors affecting the stability of metal complexes,		Lecture Method	2	Yes					

			chelate effect, determination of composition of complex by Job's method and mole ratio method.									
		Mid-I Examinations										
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	4th Week	4	**Unit-II: Bioinorganic Chemistry:** Metal ions present in biological systems, classification of elements according to their action in biological system. Geochemical effect on the distribution of metals, Sodium/K-pump, carbonic anhydrase and carboxypeptidase.		Lecture Method	4			Assignment			
		2	Conductometric and Potentiometric Titrimetry		Practical	2						

	5th Week	2	**Unit-II: Bioinorganic Chemistry:** Excess and deficiency of some trace metals. Toxicity of metal ions (Hg, Pb, Cd and As), reasons for toxicity, Use of chelating agents in medicine, Cisplatin as an anti-cancer drug.		Lecture Method	3						
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
3	**June-2022**											
	1st Week	2	**Unit-II: Bioinorganic Chemistry:** Iron and its application in bio-systems, Haemoglobin, Myoglobin. Storage and transfer of iron.		Lecture Method	2			Students Seminar			
	2nd Week	4	**Unit-III: Phase rule** Concept of phase, components, degrees of freedom. Thermodynamic derivation of Gibbs phase rule.		Lecture Method	4						

			Phase diagram of one component system - water system, Study of Phase diagrams of Simple eutectic systems i) Pb-Ag system, desilverisation of lead ii) NaCl-Water system									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	3rd Week	4	**Unit-III: Phase rule** Congruent and incongruent melting point- Definition and examples for systems having congruent and incongruent melting point , freezing mixtures. **UNIT-IV: Electrochemistry** Specific conductance, equivalent conductance and molar conductance- Definition and effect of dilution. Cell constant. Strong and weak		Lecture Method	4			**Assignment**			

			electrolytes,Kohlrausch's law and its applications,									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	4th Week	4	**UNIT-IV: Electrochemistry** Definition of transport number, determination of transport number by Hittorf's method. Debye-Huckel-Onsagar's equation for strong electrolytes (elementary treatment only), Application of conductivity measurements-conductometric titrations. Electrochemical Cells- Single electrode potential.		Lecture Method	4						
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	5th Week	**Mid-II examinations**										
4	**July-2022**											
	1st Week	2	**UNIT-IV: Electrochemistry**		Lecture Method	2						

			Types of electrodes with examples: Metal-metal ion, Gas electrode, Inert electrode, Redox electrode, Metal-metal insoluble salt- salt anion.									
	2nd Week	3	**UNIT-IV: Electrochemistry** Determination of EMF of a cell, Nernst equation, Applications of EMF measurements - Potentiometric titrations. Fuel cells- Basic concepts, examples and applications **UNIT-V: Chemical Kinetics** The concept of reaction rates. Effect of temperature, pressure, catalyst and other factors on reaction rates.		Lecture Method	3			Quiz			
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	3rd Week	4	**UNIT-V: Chemical**		Lecture Method	4						

			Kinetics Order and molecularity of a reaction, Derivation of integrated rate equations for zero, first and second order reactions (both for equal and unequal concentrations of reactants). Half–life of a reaction. General methods for determination of order of a reaction.									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	4th Week	4	**UNIT-V: Chemical Kinetics** Concept of activation energy and its calculation from Arrhenius equation. Theories of Reaction Rates: Collision theory and Activated Complex theory of bimolecular reactions. Comparison of the two theories		Lecture Method	4			Assignment			

			(qualitative treatment only)									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	5th Week	4	**UNIT-V: Chemical Kinetics** Enzyme catalysis-Specificity, factors affecting enzyme catalysis, Inhibitors and Lock & key model. Michaels-Menten equation-derivation, significance of Michaelis-Menten constant. **Remedial Classes**		Lecture Method	4			Student Seminar			
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
5	**August-2022**											
	1st Week	**End Semester Examinations**										

GOVERNMENT DEGREE COLLEGE: GUNTUR-522001

ANNEXURE-I

A MODAL FORMAT FOR CIRCULAR PLAN (SEMESTER)-LECTURER WISE

DEPARTMENT: PHYSICS CLASS: I B.Sc YEAR: 2021-22 PAPER: I TITLE: MECHANICS, WAVES AND OSCILLATIONS

NAME OF THE LECTURER: D. VIJAYA SRI

Month	Week	Hours available	Subject/Topic	Additional input	Curricular activity				Co-Curricular activity			
					Activity	Hours	Whether conducted	If not	Activity	Hours allotted	Whether conducted	If not
NOV	4	23	Mechanics of Particles	1. Parallel & Perpendicular axes	Bridge course	1 h	Yes	--	Quiz	1 h	Yes	
DEC	4	22	Motion in a Central force field	1.Motion under inverse square law 2. Newton's law from Kepler's Laws	Assignment-I	1 h	Yes	---	G.D	1 h	Yes	
JAN	4	20	Relativistic Mechanics	Experimental verification of Time dilation	Student Seminars	1 h	Yes	--	Student projects		Yes	
FEB	4	21	Undamped, Damped & Forced Oscillations Ultrasonics	1. Compound pendulum 2. Torsional Pendulum 1. Determination of Wavelength-Sear's Method	Assignment-II				Study hours	1 h		
March	4	23	Coupled oscillations Vibrating Strings Mechanics of Rigid Bodies	Modes of Vibration of a stretched string clamped at middle					Remedial classes			

(D. VIJAYA SRI)

V.R. Jhansi

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GOVERNMENT AUTONOMOUS COLLEGE FOR WOMEN, GUNTUR
ANNUAL CURRICULAR PLAN

Department: Zoology
Name of the Lecturer: G. Catherin

~~**Month:**~~ III B.Sc BZC (EM & TM)

S. No.	Month& Week	Hours Available	Class / Papers	Syllabus Topic (as per the University)	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	October 5th week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Poultry feed management – Principles of feeding, Nutritional requirement for different stages of layers and broilers, Methods of feeding		Lecture	3+3	Yes		Q/A's session, Group Discussion	1	Yes		

S. No.	Month & Week	Hours Available	Class / Papers	Syllabus Topic (as per the University)	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity				Remarks
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date	
1	November 1st week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Poultry diseases – Viral and Bacterial diseases – Symptoms, Control and Management	PPT's	Lecture cum Demonstration	3+3	Yes		Group Discussion	2	Yes		
2	November 2nd week	2 (TM) 2+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Fungal and Parasitic diseases – Symptoms, Control and Management	Nutritional deficiency disorders PPT's	Lecture cum Demonstration	2+2	Yes			2	Yes		
3	November 3rd week	3 (TM) 3 (EM	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Vaccination in Poultry Breeds of Dairy Cattle andBuffaloes – Definition of Breed	PPT's	Lecture cum Demonstration	3+3	Yes						
4	November 4th week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Classification of Indian Cattle, Exotic breeds and IndianBuffalo breeds	PPT's	Lecture cum Demonstration	3+3	Yes		Seminars	2	Yes		
5	November 5th week	2 (TM) 2+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	IndianBuffalo breeds , Systems of Inbreeding	PPT's	Lecture cum Demonstration	2+2	Yes		Assignment	1	Yes		

S. No.	Month& Week	Hours Available	Class / Papers	Syllabus Topic (as per the University)	Additional Input / Value Addition	Curricular Activity				Co-Curricula		
						Activity	Hours allotted	Whether conducted	If not. alternate date	Activity	Hours allotted	Wheth conduct
1	December 1st week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Systems of Inbreeding and Cross breeding II Mid Exams	PPT's	Lecture cum Demonstration	3+3	Yes				
2	December 2nd week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Housing of dairy animals-Selection of site for dairy form; Systems of Housing		Lecture method	3+3	Yes		Students Seminar	2	
3	December 3rd week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Cleaning and Sanitation of Dairy farm, Weaning of calf, Castration and Dehorning		Lecture method	3+3	Yes		Projects	2	Yes
4	December 4th week	1+3 (TM) 1 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Deworming and Vaccination Programme		Lecture method	1+1	Yes		Assignment, Field Trip	1	Yes
5	December 5th week	1(TM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Records to be maintainedin a dairy farm		Lecture method	1	Yes				

S. No.	Month & Week	Hours Available	Class Papers	Syllabus Topic (as per the University)	Additional Input / Value Addition	Curricular Activity				Co-Curricular Activity			
						Activity	Hours allotted	Whether conducted	If not, alternate date	Activity	Hours allotted	Whether conducted	If not, alternate date
1	January 1st week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Deworming and Vaccination Programme Care and management of dairy animals – Calf, Heifer, Milch aanimal		Lecture method	3+3			Assignment	1	Yes	
2	January 2nd week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Records to be maintainedin a dairy farm Care and management of dry and pregnant animals		Lecture method	3+3			Projects	2	Yes	
3	January 3rd week	3+3 (TM) 3+3 (EM)	3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	Care and management of dairy animals – Calf, Heifer, Milch aanimal Care and management of dry and pregnant animals,bulls and bullocks		Lecture method	2			Assignment	2	Yes	
4	January 4th week		3rd year B.Sc. BZC (TM), BZC (EM) – Animal Husbandry	SEMESTER END EXAMINATIONS									

G. Catherin

Signature of the Lecturer

Assistant Professor in Zoology
U.G. & P.G. Dept. of Zoology
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N. Ashoorne

Signature of the Department I/C

Head, Dept. of Zoology
Govt. Degree College for Women
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V.R. Sastry

Signature of the Principal

COLLEGE FOR WOMEN
GUNTUR.

ANNUAL CURRICULAR PLAN 2020-21 III B.sc(Cloud computing)-Sem-V-Paper 1
Advanced Javascript, Jquery and Json with Visualforce

Month & Week	Hours Avail-able	Syllabus &Topic	Addl.Input/ Value Addition taught	Curricular Activity			Co-Curricular Activity		
				Activity Conducted	Hours Allotted	Whether Conducted	Activity Conducted	Hours Allotted	Whether Conducted
Nov 1st week	6	Web technologies introduction		Theory + Practical	3+2		Elicitation from previous topics	1	
Nov 2nd week	1	**Introduction to JavaScript;** Data types, Objects, Functions, Events, Regular Expressions		Theory + Practical	1	Yes		1	
Nov 3rd week	6	**Unit -1** JQuery Selectors- All Selector, : animated selector, Attribute contain prefix selector, Attribute contain selector, Attribute contain word selector, Attribute not equal selector, Attribute equal selector	Regular Expressions usage in validations, Button Events and Mouse Events	Theory + Practical	3+2	Yes	Exam	1	
Nov 4th week	6	**Unit-I** Button selector, Check selector, Checked selector, Child Selector Validating Forms-Client side Validations. Server Validations.		Theory + Practical	3+2	Yes			

Dec 1st week	6	**Unit-II** **JQuery UI Widgets**-Accordion widget, Auto complete widget, Button widget, Button widget, Checkbox radio widget,	Parameters can be passed in Widget methods	Theory + Practical	3+2	Yes	Quiz	1	
Dec 2nd week	6	**Unit-II** Control group widget, Date picket widget, Dialogue widget, Menu widget, progress bar widget, Select menu widget, Slider widget.		Theory + Practical	6		Exam	1	
Dec 3rd Week	3	**Unit-III** **AJAX**-Introduction to JQuery AJAX, HTTP Methods and XmlHttp Request and xmlHttpResponse,	XML data, HTTP get and Post methods	Theory + Practical	3		Assignment	1	
Jan1st week	6	**Unit-III** **XML**- XML Systax,Elements, Attributes, XML Datatypes, XSD Introduction		Theory + Practical	2+2			1	
Jan 3rd week		**Unit-IV** JSON, Structure of JSON,Data types in JSON, Object, Storing JSON data,	Differences between JSON and XML	Theory + Practical	2+2		Seminar	1	
Jan 4th week	5	**Unit-IV** Storing JSON data in Array, Nesting JSON Data, Usages of JSON, JSON.Parse, stringify method		Theory + Practical	2+3			1	

Feb 2nd week	6	**Unit-V** Introduction to Angular Js, Directives, Controllers, Two Way Binding.	Data binding using Angular JS	Theory + Practical	2+2		Web page Presentation	1	
Feb 3rd Week	5	**Unit-V** Angular JS operations- Create, Read		Theory + Practical	3+2			1	
Feb 4th Week	5	**Unit-V** Angular JS- updateDelete		Theory + Practical	2+2			1	

Signature of Faculty

Signature of Dept. Incharge

Lecturer In-charge
COMPUTER DEPARTMENT
Govt. College for Women
GUNTUR

Signature of the Principal

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GUNTUR

ANNUAL ACADEMIC CURRICULAR PLAN

2021 - 2022

Name of the lecturer : DR.R. ANURADHA

Department : HISTORY AND TOURISM

PAPER- III : MODERN INDIAN HISTORY & CULTURE(1764 TO 1947 A.D)

ANNUAL ACADEMIC CURRICULAR PLAN 2021-2022

Name of the College: Govt. college for women (A) **Name of the Department:** History and Tourism and travel management

Name of the lecturer: Dr. R. Anuradha **Class: II BA** **Year:** 2021-22 **Paper: III**

Name of the subject : MODERN INDIAN HISTORY & CULTURE (1764-1947 A.D)

S.No	Month & Week	Hours Available	Syllabus/Topic	Additional Input/Value Addition Provided /Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allocated	Whether Conducted	If not alternative date	Activity Conducted	Hours allocated	Whether Conducted	If not alternative date	
1.	**Nov-21**												
	4th Week	2	Policies of Expansion –Warren Hastings										
2.	**Dec-21**												
	1st Week	4	Subsidiary alliance & Doctrine of Lapse – Causes & Results of 1857 Revolt		Proposed to Conduct Internal Assessment-1	1	Yes						

	2nd Week	5	Rippon , Curzon									
	3rd Week	6	Social , Religious & Self Respect Movements- Raja Rammohan Roy		Proposed to conduct Assignment -1	1	Yes					
	4th Week	3	Dayananda Saraswathi, Swami Vivekananda									
	5th Week	6	Jyotibaphule , Narayana Guru, Periyar, Dr. B.R. Ambedkar		Proposed to Conduct slip test	1	Yes					
3.	**Jan-22**											
	1st Week	5	Causes for the Growth of Nationalism- freedom struggle from 1885 to 1905		Proposed to conduct Assignment -1	1	Yes					
	2nd week	2	Moderate Phase									
	3rd Week	6	Militant Phase : Vandematharam Movement – Home Rule Movement		Proposed to conduct slip test -1	1	Yes		Proposed to conduct seminor	1	Yes	
	4th Week	5	Freedom Struggle from 1920-1947						Proposed to conduct Quiz	1	Yes	

4.	**Feb-22**												
	1st Week	6	Gandhiji's Role in the National Movement						Proposed to conduct seminar	1	Yes		
	2nd Week	5	Revolutionary Movement-Subhas Chandra Bose		Proposed to conduct Assignment	1	Yes						
	3rd Week	6	Muslim League & The growth of Communism										
	4th Week	6	Partition of India		Proposed to conduct slip test -1	1	Yes		Proposed to Conduct Group Discussion	1			
5.	**Mar-22**												
	1st Week	5	Advent of Freedom										
	2nd Week	5	Integration of Princely states in to Indian Union										
	3rd Week	6	Sardar vallabhai patel		Proposed to conduct slip test	1							

	4th Week	6	Revision Classes										
	5th week	4	Preparation for Semester end Exams										
6.	**Apr-22**												
	1st Week		Semester End Examinations										

Signature of the lecturer

HOD

Signature of the Principal

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ANNUAL ACADEMIC PLAN

FOR YEAR 2020-21

K. Aparna seetharam

ANNUAL PLAN FOR

SEMESTER V

Annual Academic Curricular Plan - III BSc paper V semester V

Faculty Name: K. APARNA SEETHARAM

ANNUAL CURRICULAR PLAN 2020-21

Sl. No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hrs Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hrs Allotted	Whether Conducted	If not alternate date
	November 2020											
1	1st week	3	Introduction of syllabus , question paper model Introduction to Chemical kinetics		Lecture method	3	yes					
23	2nd week		IV sem end practical exams		_____							
	3rd week		II Sem end practical exams		----------							
4	4th week	3	Coordination compounds-Double and complex compounds, IUPAC naming Werner theory ,Sid wick theory EAN calculation	Terms in co-ordination compounds	lecture method and problem solving	2+1			Assignment	-	yes	
	December' 2020											
5	1st week	5	Werner theory, Sid wick theory EAN calculations Valance bond theory	Examples of VBT	Online &	3+2			Assignment	-	yes	

			explanation for compounds with CN-6		off line L M							
6	2nd week	3	VBT contd, Introduction to CFT	Shapes of d-orbitals basing on quantum theory	Lecture method	3h						
7	3rd week	3	CFT diagrams for octahedral, square planar and tetrahedral complexes		Lecture method	2h			Slip test	1	yes	
8	4th week		Christmas holidays----------		----------				--------- ---------			
9	5th week	2	Isomerism in complexes	Comparison of isomerism in organic chemistry and complexes	Lecture method	2h						
	January '21											
10	1st week	2	Spectral properties in complexes, Gouy's method		Lecture method	2h						
11	2nd week	2	----------1st mid exams----									
12	3rd week	3	Stability in complexes, chelate effect, ,Job's method		Lecture method	2h			Slip test	yes		

13	4th week	3	Amines- Introduction, Preparation and physical properties	Identification of amines	Lecture method	2h			Group discussion		yes	
14	February21											
15	1st week	3	Chemical properties and separation of amines, Introduction to nitro compounds	Application of amines	Lecture method	2h			Slip test		yes	
16	2ND week		II mid exams	----------								
17	3rd week	3	Preparation and properties of nitro compounds	Examples for keto-enol tautomerism	Lecture method	2h			Slip test	1h	yes	
18	4th week	3	Thermodynamics- Introduction, terms Thermodynamics- Ist law, C_p, C_v work done, C_p-C_v=R derivation		Lecture method							
	March'21											
19	1st week	3	Kirchoff's equations, Joule Thompson effect, Second law thermodynamics		Lecture method	3h			Assignment		yes	
20	2nd week		Carnot's cycle concept of entropy		Lecture method	1			GD	2		
21	3rd week	----- ------	Sem end practical exams		----------							
22	4th week		----------	Sem end exams	----------							

Lecturer

In-charge of the dept.

Principal

ANNUAL PLAN FOR

SEMESTER VI

Annual Academic Curricular Plan for III B. Sc paper VI

Faculty Name: K. APARNA SEETHARAM

ANNUAL CURRICULAR PLAN 2020-21

Sl.No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
	April											
1	1st week	3hrs	Introduction to the syllabus and model paper	Awareness on environmental problems	Group discussion	1hr	yes		-	-	-	
2	2nd week	3hrs	Importance of environmental Chemistry, scope, segments of atmosphere	Create awareness on global problems	Q & A session	10 mts every hour	yes		Slip test	½ hr	yes	
3	3rd week	3hrs	Renewable and non- renewable energy sources	Advantages of solar energy	Group discussion, Q & A session	10 mts every hour	yes		Videos on previous topics and ppts	1hr	yes	

4	4th week	3hs	oxygen & hydrological cycles	Discuss the importance of water and its conservation	Q & A session	10 mts every hour	yes		-	-	-	
5	5th Week	3hrs	Introduction to Air pollution, sources of air pollution, notes	Create awareness about air pollution citing global examples	Group discussion	10 mts every hour	yes			-	-	
	May											
6	1st week	3hrs	Acid rain, smog and green-house effect	Discuss solutions to air pollution	Q & A session	30 mts	yes		Project work in various topics of pollution	6hrs	yes	
7	2nd week	3hrs	Christmas Holidays	-	-	-			-	-	-	
8	3rd week	3hrs	Notes for previous lessons						ICT videos			
9	4th week	3hrs	Bhopal gas tragedy, methods to control air pollution	Quoted examples	Group discussion	30 mts	yes		Video on BGT	1hr	yes	
	June											
10	1st week	3hrs	Revision for Mid exams	-	-	-	-		-	-	-	

11	2nd week	3hrs	First Mid exams									
12	3rdweek	3hrs	Introduction to water pollution, physical & chemical properties of water	Highlight the importance of water	Q & A session	yes						
13	4th week	3hrs	Hardness of water and methods to remove hardness	-	discussion	yes						
14	January 5thweek	3hrs	Eutrophication and waste water treatment	Discuss types of waste water treatment		yes			assignment	yes		
	July											
15	1st week	3hrs	BOD, COD, DO	Use of these methods	discussion	yes			Videos on previous topics	yes		
16	2ndweek	3hrs	TDS,DS	-	Q & A	yes						
17	3rd week	3hrs	Toxicity of metals introduction, toxicity of lead	Quoted egs	Q & A	yes			Videos on these topics			
18	4th week	3hrs	Toxicity of mercury, Cd, As		discussion	yes			Videos on these topics			
19	5th week	3hrs	Bhopal gas tragedy, toxicity		Q & A	yes			Videos on these			

			if pesticides						topics			
	July											
20	1st week	3hrs	Ecosystem Introduction and types		Discussion	yes						
21	2nd week	3hrs	Ecosystem contd		Discussion	yes			seminar			
22	3rd week	3hrs	Ecosystem contd		Discussion	yes						
23	4th week	3hrs	Biodiversity introduction types		Discussion	yes						
23	5th week	3hrs	Biodiversity contd		Discussion	yes						
	August											
24	1st week	3hrs	Notes and revision									
25	2nd week	3hrs	Notes and revision									
26	3rd week	3hrs	Semester exams									

Signature of Lecturer **Signature of In charge** **Signature of Principal**

Government College for Women (A), Guntur

Annual Plan
2021-2022

Name of the Department: Commerce Name of the Lecturer: K. Subbarathnamma Class: I B.Com Year:I Semister

Paper: Fundamentals of Accounting-1

Sl. No.	Month & Year- November	Hours Available	SYLLABUS/ TOPIC	Additional Input/Value Addition provided/taught	Curricular Activity				Co- Curricular Activity			
					Activity Conducted	Hours allotted	Whether conducted	If not Alternate Date	Activity Conducted	Hours allotted	Whether conducted	If not Alternate Date
1	WEEK - 3	5	Meaning and Definitions of Accounting and,featurs, functions and objecties,									
2	WEEK- 4	5	Accounting Concepts, conventions		Test conducted – Pre- bridge cource							
3	December WEEK - 1	5	kinds of accounts and its principles with examples Trasactions converted in to Journal entries	Bridgecource: Material provided	It is resolved to coduct the Bridge cource to1st year students	08 from 02-12-21 to 10-12-21	Yes					
4	WEEK - 2	5	UNIT:I INTRODUCTION Book –keeping and accountancy –Branches of Accounting	Material provided	Bridge cource conducted	Test conducted –After- bridge cource						

5	WEEK - 3	5	Accounting process ,cycle, equation and classification – Rules double entry system									
6	WEEK - 4	5	Identification of financial transactions ,Journalising-Posting of Ledgers - Types of Vouchers		Assignment-1	01	Yes					
7	January WEEK - 1	5	UNIT:II : SUBSIDIARYBOOKS: Types of subsidiary books-Cash books and Simple column Cash book									
8	WEEK - 2	5	Two Column and Three column cash books and its ptoblems		Assignment -2	01	Yes					
9	WEEK - 3	5	Three column cash book ,Petty cash book (Including problems)									
10	WEEK - 4	5	UNIT:II TRAIL BALANCE AND RECTIFICATION OF ERRORS: Preparation of Trail balance(including problems									

11	February WEEK- 1	5	Meaning of errors – Types Errors - limitations									
12	WEEK - 2	5	Preparation of Rectification of errors (including problems)									
13	WEEK - 3	5	Preparation of Rectification of errors (including problems)		MID - 1	From 14-02-22 to 16-02-22	Yes		Student Seminar conducted	01	Yes 24-02-2022	
14	WEEK - 4	5	UNIT:IV BANK RECONCILIATION STATEMENT: Meaning and need for bank reconciliation – Reasons for difference between cash book and pass book balances				Yes From 16-09-19 To3-10-19		Quiz to be Conducted	01	Yes 28-02-22	
15	March WEEK -1	5	Preparation of Bank Reconciliation Statement						Debate tobe conducted			
16	WEEK- 2	5	Problems on both favourable and un – favourable balances									

17	WEEK - 3	5	UNIT:V I FINAL ACCOUNTS: Preparation of final: Accounts –Trading Account		Remedial classes tobe conducted							
18	WEEK - 4	5	Preparation of Profit and Loss account with suitable adjustments		Before going to Sem end exams HOPE test to be conducted	03						
19	April WEEK -1	5	Preparation of final Accounts –Profit & loss Account and Balance sheet									
20	WEEK -2	5	Prepation of SEM end examinations & previous Questions practice etc.,									

K-SUBBA RATNAMMA
Lect in Commerce.

V.R.
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GOVT. COLLEGE FOR WOMEN (A)
GUNTUR.

GOVT. DEGREE COLLEGE FOR WOMEN

GUNTUR - 522 001.

ACADEMIC PLAN

Name of the Lecturer : K. LAKSHMI PRAMEELA

Department : Chemistry 2021 - 2022

Bapuji Printers, Guntur-3. Ph : 6644412, 2222172

ANNUAL ACADEMIC CURRICULAR PLAN 2021 - 2022

Name of the College : Govt. Degree College for Women, Guntur Name of the Department : Chemistry

Name of the Lecturer : K. Lakshmi Prameela Class : III B.Sc Year : III Paper : V.I

S. No.	Month & Week	Hours available	Syllabus / Topic	Additional Input / Value Addition Provided / Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
			III B.Sc Semester - V, Chemistry										
			Paper - VI										
			Inorganic, Organic & Physical Chemistry.										
			Unit-I : Reactivity of metal										
	Sep. IV	03	complexes: Labile and Inert complexes. ligand substitution reactions SN^1, SN^2	Applications	Teaching	03	yes						
			substitution reactions of square planar complexes						Assignment	01	yes		
		02	Practicals		Practicals	02	yes						
		02	Trans effect and applications of Trans effect						discussion	01	yes		
		02	Practicals										
	oct I	03	Bioinorganic chemistry Essential elements, biological significance of Na, K, Mg,	Importance of Na, K, Mg elements	Teaching	03	yes						

ANNUAL ACADEMIC CURRICULAR PLAN 2021 - 2022

Name of the College : G.D.C.W. Guntur **Name of the Department :** Chemistry

Name of the Lecturer : K. Lakshmi Prameela **Class :** III B.Sc **Year :** III **Paper :** VI

S. No.	Month & Week	Hours available	Syllabus / Topic	Additional Input / Value Addition Provided / Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
			Ca, Fe, Co, Ni, Cu, Zn and										
			Metalloporphyrins.	Uses of					Assignment				
		02	Practicals	Bio Inorganic						01	Yes		
	Oct II	03	Structure and functions of	elements	Teaching	03	yes						
			haemoglobin Myoglobin and										
		02	Chlorophyll. Practicals		Practicals	02	yes						
	Oct III	03	Chemical Kinetics;										
			Rate of reaction, Order and										
			molecularity. Derivation of	Importance									
			rate constants for first, second	of Order of	Teaching	03	yes		Student	Seminar			
			third and Zero order	reactions						01	Yes		
			reactions and examples.										
		02	Practicals		Practicals	02	yes						
	IV	03	Methods to determine the										
			order of reactions. Effect of						Mid Examinations-I				
			temperature on rate of reaction.							01	Yes		
					Teaching.	03	yes						

ANNUAL ACADEMIC CURRICULAR PLAN 2021 - 2022

Name of the College : G.D.C(W) Guntur

Name of the Department : K.LAKSHMI PRAMEELA, CHEMISTRY

Name of the Lecturer : K. Lakshmi Prameela

Class : III B.Sc Year : III Paper : V.I

S. No.	Month & Week	Hours available	Syllabus / Topic	Additional Input / Value Addition Provided / Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
			Arrhenius equation concept of activation energy.		Teaching	03							
	V	03	photochemistry						Interaction with students	01	yes		
			Difference between thermal and photochemical processes. Laws of photochemistry. Quantum yield. practicals hydrogen chlorine, hydrogen bromine reactions fluorescence phosphorescence, photosensitized reactions, energy transfer process.	photo chemical reactions application	Teaching	03	yes		Assignment	01	yes		
	Nov		Practicals		Practicals	02	yes						
	D	03	Heterocyclic compounds: Introduction, classification and examples. Preparation of pyrrole and properties						slip Test	01	yes		

ANNUAL ACADEMIC CURRICULAR PLAN 2021 - 2022

Name of the College : G.D.C.W. Gauntur Name of the Department : Chemistry

Name of the Lecturer : K. Lakshmi Prameela Class : III B.Sc Year : III Paper : VI

S. No.	Month & Week	Hours avail-able	Syllabus / Topic	Additional Input / Value Addition Provided /Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether con-ducted	If not, alternate date	Activity Conducted	Hours allotted	Whether con-ducted	If not, alternate date	
			Acidic Character of pyrrole.										
			Practicals.		Practicals	02							
	II	03	Preparation methods of	uses of					Assignment	01	yes		
			Furan, Thiophene and	Hetero	Teaching	03							
			properties. Basicity and	cyclic									
			Aromaticity, Hucked rule	compounds									
			Practicals		Practicals	02							
	III	03	pyridine Preparation and										
			properties, electrophilic		Teaching	03			slip Test	01	yes		
			substitution Reactions.										
			Practicals		practicals	02							
	IV	03	Carbohydrates										
			Introduction, classification,	Applications	Teaching	03							
			structure of Glucose, Properties	of carbo-									
			Practicals	hydrates	Practicals	02			Assignment	01	yes		
			structure of Fructose and										
			Properties, Anomers with										

ANNUAL ACADEMIC CURRICULAR PLAN 2021 - 2022

Name of the College : G.D.C.(W) Guntur Name of the Department : Chemistry

Name of the Lecturer : K. Lakshmi Pramoda Class : III B.Sc Year : III Paper : VI

S. No.	Month & Week	Hours avail-able	Syllabus / Topic	Additional Input / Value Addition Provided /Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether con-ducted	If not, alternate date	Activity Conducted	Hours allotted	Whether con-ducted	If not, alternate date	
			examples, Killiani-Fischer										
		02	method.		Practicals	02							
	V	03	Epimers, Epimerisation.										
			Aldohexose to Aldopentose.										
			Aldohexose to Ketohexose		Teaching	03			Mid exams	- 2			
			Fructose to Glucose. Tests for.							01	yes		
			Carbohydrates.										
			practicals										
	Dec	03	Amino acids and Proteins:										
	I		Introduction, Definition,										
			Classification and examples.		Teaching	03							
			Methods of synthesis.						Assignment				
			practicals							01	yes		
	II	03	General Methods of synthesis		Teaching	03							
			of alpha aminoacids. Malonic										
			ester synthesis Strecker synthesis										
		02	Practicals		Practicals	02							

ANNUAL ACADEMIC CURRICULAR PLAN 2021 - 2022

Name of the College : GDC W Guntur

Name of the Department : Chemistry

Name of the Lecturer : K. Lakshmi Pramada

Class : III B.Sc Year : III Paper : VI

S. No.	Month & Week	Hours available	Syllabus / Topic	Additional Input / Value Addition Provided / Taught	Curricular Activity				Co-Curricular Activity				Remarks
					Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	Activity Conducted	Hours allotted	Whether conducted	If not, alternate date	
	III	03	Zwitter ion, iso electric point chemical Properties, structure and nomenclature of peptides and Proteins.		Teaching	03			Assignment				
	IV		Christmas Break.										
	V	02	Amino acids. practicals		Practicals	02							
Jan													
	I		Revision										
	II		Revision										
	III		Annual Examinations						Annual Examinations				
	IV		Annual Examinations						Annual Examinations				
Feb	I		Practical Exams						Sem-V, Practical Exams				

Signature of the Lecturer

Signature of the HOD

V.R. Jayalakshmi

Signature of the Principal

Govt. College for Women

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Centre with Potential for Excellence

ANNUAL ACADEMIC PLAN

2021-22

Submitted by

K. Lakshmi Krishna Rao
Assistant Professor
Department of Chemistry

Annual Curricular Plan 2021-22: I-B.Sc.-I- Semester – B5, B8 and B9-Sections

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**November-2021**											
	1st Week	4	**Bridge Course-** Atomic Structure; Bridge Course- Chemical bonding: Ionic, covalent, coordination covalent and hydrogen bonds; VB Theory, VSEPR Theory		Lecture Method	4	Yes		Pre-bridge course test	1	Yes	
		2	Analysis of mixture of salts		Practical	2	Yes					
	2nd Week	3	**Bridge Course-** Organic Chemistry, Nomenclature of derivatives of hydrocarbons, bond cleavage and electrophilic and nucleophilic reagents Nomenclature of organic compounds		Lecture Method	4	Yes		Bridge course test	1	Yes	
		2	Analysis of mixture of salts		Practical	2	Yes					

	3rd Week	4	Discussion on Syllabus **Unit-I: Chemistry of p-Block elements:** Preparation, structure of diborane and borazine; Synthesis and preparation of siloxanes; Preparation, structure and uses of silicones;		Lecture Method	4	Yes		Assignment			
		2	Analysis of mixture of salts		Practical	2	Yes					
	4th Week	4	**Chemistry of p-Block elements:** Phosphonitrilic halides; Oxides and oxyacids of sulfur (structure only); Interhalogen compounds; Pseudohalogens;		Lecture Method	4	Yes					
		2	Analysis of mixture of salts		Practical	2	Yes					
	5th Week	2	**Unit-II: Chemistry of d-block elements:** Electronic configuration; Variable oxidation states, stability of oxidation states.		Lecture Method	2	Yes		Assignment			

2	**December-2021**											
	1st Week	2	**Unit-II: Chemistry of d-block elements:** Complex formation, color and catalytic properties of d-block elements Magnetic properties of d-block elements;		Lecture Method	2	Yes					
		2	Analysis of mixture of salts		Practical	2	Yes					
	2nd Week	3	**Unit-II:** Introduction and electronic configuration and oxidation states; Lanthanide and actinide contractions and its consequences;		Lecture Method	3	Yes					
		2	Analysis of mixture of salts		Practical	2	Yes					
	3rd Week	4	**Unit-II: Chemistry of f-Block elements:** Magnetic properties of f-block elements **Unit-II: Bonding in Metals:** General properties of metals and free-electron theory, V.B.		Lecture Method	4	Yes			1	Yes	

			theory, band theory of metallic bonding									
		2	Analysis of mixture of salts		Practical	2						
	4th Week	2	**Unit-II: Bonding in Metals:** Conductors, semiconductors and insulators **Unit-III: Solid State:** Symmetry in crystals		Lecture Method	2						
		2	Analysis of mixture of salts		Practical	2						
	5th Week	2	**Unit-III: Solid State:** Law of constancy of interfacial angles. The law of rationality of indices. The law of symmetry. Miller indices		Lecture method	2			Assignment			
		2	Analysis of mixture of salts		Practical	2						
		Mid-I examinations										
3	**January-2022**											
	2nd Week	3	**Unit-III: Solid State:** Definition of lattice point, space lattice, unit cell. Bravais lattices and crystal systems.		Lecture method	3			Assignment			

			X-ray diffraction and crystal structure. Bragg's law. Powder method.									
		2	Analysis of mixture of salts		Practical	2						
	3rd Week	2	**Unit-III: Solid State:** Defects in crystals. Stoichiometric and non-stoichiometric defects.		Lecture method	3						
	4th Week	4	**UNIT-IV: Gaseous State:** van der Waal's equation of state. Andrew's isotherms of carbon dioxide, continuity of state. Critical phenomena. Relationship between critical constants and vander Waal's constants.		Lecture method	4			Assignment			
		2	Analysis of mixture of salts		Practical	2						
	5th Week	4	**UNIT-IV: Gaseous State:** Law of corresponding states. Joule-Thomson effect. Inversion		Lecture method	4						

			temperature. **UNIT-IV: Liquid State:** Liquid crystals,mesomorphicstate. Differences between liquid crystal and solid/liquid.									
		2	Analysis of mixture of salts		Practical	2						
4	**February-2022**											
	1st Week	3	**UNIT-IV: Liquid State:** Classification of liquid crystals into Smectic and Nematic. Application of liquid crystals as LCD devices. **UNIT-V: Solutions, Ionic equilibrium& dilute solutions:** Ionic product, common ion effect, solubility and solubility product. Calculations based on solubility product.		Lecture method	3			Quiz			
		2	Analysis of mixture of salts		Practical	2						
	2nd Week	4	**UNIT-V: Solutions, Ionic**		Lecture	4			Assignment			

			equilibrium& dilute solutions: Azeotropes-HCl-H2O system and ethanol-water system. Partially miscible liquids-phenol-water system. Critical solution temperature (CST), Effect of impurity on consulate temperature.		method							
		2	Analysis of mixture of salts		Practical	2						
	3rd Week	4	**UNIT-V: Solutions, Ionic equilibrium& dilute solutions:** Immiscible liquids and steam distillation. Nernst distribution law. Calculation of the partition coefficient. Applications of distribution law. Colligative properties- RLVP, Osmotic pressure, Elevation in boing point and depression in freezing point.		Lecture method	4						

		2	Analysis of mixture of salts		Practical	2						
	4th Week	2	**UNIT-V: Solutions, Ionic equilibrium& dilute solutions:** Experimental methods for the determination of molar mass of a non-volatile solute using osmotic pressure, Elevation in boing point and depression in freezing point.		Lecture method	4			Students Seminar			
		Mid-II examinations										
5	**March-2022**											
	1st Week	3	**UNIT-V: Solutions, Ionic equilibrium& dilute solutions:** Abnormal colligative properties. Van't Hoff factor. **Remedial Classes**		Lecture method	4						
		2	Analysis of mixture of salts		Practical	2						
	2nd Week	**End Semester Examinations**										

Annual Curricular Plan 2021-22: I-B.Sc.-II- Semester – B5, B8 and B9-Sections

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**March-2021**											
	3rd Week	4	**Recapitulation of Basics of Organic Chemistry Unit-I: Carbon-Carbon sigma bonds (Alkanes and Cycloalkanes):** General methods of preparation of alkanes- Wurtz and Wurtz-Fittig reaction, Corey House synthesis, physical and chemical properties of alkanes, Isomerism and its effect on properties,		Lecture Method	4						
		2	Volumetric Analysis		Practical	2						
	4th Week	4	**Unit-I: Carbon-Carbon sigma bonds (Alkanes and Cycloalkanes):** Free radical		Lecture Method	4			Assignment			

			substitutions; Halogenation, concept of relative reactivity v/s selectivity. Conformational analysis of alkanes (Conformations, relative stability and energy diagrams of Ethane, Propane and butane).									
		2	Volumetric Analysis		Practical	2						
	5th Week	3	**Unit-I: Carbon-Carbon sigma bonds (Alkanes and Cycloalkanes):** General molecular formulae of cycloalkanes and relative stability, Baeyer strain theory, Cyclohexane conformations with energy diagram, Conformations of monosubstituted cyclohexane.		Lecture Method	4			Assignment			
		2	Volumetric Analysis		Practical	2						
2	**April-2022**											

	2nd Week	3	**UNIT-II: Carbon-Carbon pi Bonds (Alkenes and Alkynes):** General methods of preparation, physical and chemical properties. Mechanism of E1,E2,E1cb reactions, Saytzeff and Hoffmann eliminations, Electrophilic Additions, mechanism(Markownikoff/Antimarkownikoff addition) with suitable examples.		Lecture Method	4			Assignment			
		2	Volumetric Analysis		Practical	2						
	3rd Week	4	**UNIT-II: Carbon-Carbon pi Bonds (Alkenes and Alkynes):** Syn and anti-addition, addition of H2, X2, HX, oxymercuration-demercuration. hydroboration-oxidation, ozonolysis,		Lecture Method	4						

			hydroxylation, Diels Alder reaction,1,2-and1,4-addition reactions in conjugated dienes.									
		2	Volumetric Analysis		Practical	2						
	4th Week	4	**UNIT-II: Carbon-Carbon pi Bonds (Alkenes and Alkynes):** Reactions of alkynes; acidity, electrophilic and nucleophilic additions, hydration to form carbonyl compounds, Alkylation of terminal alkynes.		Lecture Method	4			Assignment			
		2	Volumetric Analysis		Practical	2						
		Mid-I examinations										
3	**May-2022**											
	1st Week	4	**Unit-III: Benzene and its reactivity:** Concept of aromaticity, Huckel's rule - application to Benzenoid (Benzene, Naphthalene) and		Lecture Method	4						

			Non - Benzenoid compounds (cyclopropenylcation, cyclopentadienyl anion and tropyliumcation)									
		2	Volumetric Analysis		Practical	2						
	2nd Week	4	**Unit-III: Benzene and its reactivity:** Reactions - General mechanism of electrophilic aromatic substitution, mechanism of nitration, Friedel-Craft's alkylation and acylation. Orientation of aromatic substitution - ortho, para and meta directing groups.		Lecture Method	4			Quiz			
		2	Volumetric Analysis		Practical	2						
	3rd Week	4	**Unit-III: Benzene and its reactivity:** Ring activating and deactivating groups with examples (Electronic		Lecture Method	4						

			interpretation of various groups like NO_2 and Phenolic). Orientation of (i) amino, methoxy and methyl groups (ii) Carboxy, nitro, nitrile, carbonyl and sulphonic acid groups (iii) Halogens									
		2	Volumetric Analysis		Practical	2						
	4th Week	2	**UNIT-IV: Surface chemistry and chemical bonding: Colloids-** Coagulation of colloids- Hardy-Schulze rule. Stability of colloids, Protection of Colloids, Gold number.		Lecture Method	2			Students Seminar			
		2	Volumetric Analysis		Practical	2						
		Mid-II Examinations										
	5th Week	2	**UNIT-IV: Surface chemistry and chemical bonding: Colloids-**									

			Adsorption- Physical and chemical adsorption, Langmuir adsorption isotherm, applications of adsorption.									
4	**June-2022**											
	1st Week	2	**UNIT-IV: Chemical Bonding:** Valence bond theory, hybridization, VB theory as applied to ClF_3**,** $Ni(CO)_4$**,**		Lecture Method	2						
		2	Volumetric Analysis		Practical	2						
	2nd Week	4	**UNIT-IV: Chemical Bonding:** Molecular orbital theory -LCAO method, construction of M.O. diagrams for homo-nuclear and hetero-nuclear diatomic molecules (N2, O2, CO and NO). **Unit-IV: HSAB:** Pearson's concept, HSAB principle & its importance,		Lecture Method	4			Assignment			

			bonding in Hard-Hard and Soft-Soft combinations.									
		2	Volumetric Analysis		Practical	2						
	3rd Week	4	**Unit-V: Stereochemistry of carbon compounds:** Molecular representations-Wedge, Fischer, Newman and Saw-Horse formulae. Optical isomerism: Optical activity-wave nature of light, plane polarised light, optical rotation and specific rotation.		Lecture Method	4						
		2	Volumetric Analysis		Practical	2						
	4th Week	4	**Unit-V: Stereochemistry of carbon compounds:** Chiral molecules-definition and criteria (Symmetry elements)-Definition of enantiomers and						Students Seminar			

			diastereomers – Explanation of optical isomerism with examples- Glyceraldehyde, Lactic acid, Alanine, Tartaric acid, 2,3-dibromopentane. D,L, R,S and E,Z-configuration with example									
		2	Volumetric Analysis		Practical	2						
	5th Week	3	**Unit-V: Stereochemistry of carbon compounds:** Definition of Racemic mixture – Resolution of racemic mixtures (any 3 techniques) and **Remedial Classes**						Assignment			
5	**July**											
	1st Week	**End Semester Examinations**										

Govt. College for Women

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Centre with Potential for Excellence

ANNUAL ACADEMIC PLAN

2021-22

Submitted by

K. Lakshmi Krishna Rao
Assistant Professor
Department of Chemistry

Annual Curricular Plan 2021-22 (II-B.Sc.-III- Semester – C1 (B.Z.C.)-Section)

S.No.	Month & Week	Hours Available	Syllabus & Topic	Addl. Inputs/ Value Addition taught	Curricular Activities				Co-curricular Activities			
					Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**November-2021**											
	5th Week	1	Discussion on topics of syllabus		Lecture Method	1	Yes					
2	**December-2021**											
	1st Week	3	**Unit-IV: Molecular Spectroscopy:** Introduction to molecular spectroscopy; Rotational spectroscopy: Principle and Theory Selection rule, frequency of rotational lines, relative intensity rotational spectral lines, determination bond length and moment of inertia		Lecture Method	3	Yes					
		2	Organic Preparations		Practical	2	Yes					
	2nd Week	3	**Unit-IV: Molecular Spectroscopy:**	Application of microwave	Lecture Method	3	Yes		Assignment	1	Yes	

			Rotational spectroscopy-determination bond distances of polyatomic molecules using isotopic substitution method; Vibrational spectroscopy-introduction and principle; derivation of fundamental vibrational frequency; calculation of force constant, frequency and reduced mass	radiation in microwave oven (internal heating)								
		2	Organic Preparations		Practical	2	Yes					
	3rd Week	2	**Unit-IV: Molecular Spectroscopy:** Harmonic and anharmonic oscillators, selection rule; vibrational modes in polyatomic molecules; different types of vibrations and vibrational frequencies Types of IR bands, IR		Lecture Method	2	Yes					

			bands in water, co2 molecules									
		Mid-I Examinations										
		2	Organic Preparations		Practical	2						
	4th Week	2	**Unit-V: Applications of IR spectroscopy;** Applications IR Spectroscopy for organic functional groups Interpretation of IR spectra of organic compounds		Lecture Method	2			Assignment			
		2	Organic Preparations		Practical	2						
	5th Week	3	**Unit-IV: Molecular Spectroscopy:** Franck-Condon principle and electronic energy levels in organic molecules; Types of electronic transitions, commons terms used in electronic spectra;		Lecture Method	3						
		2	Organic Preparations		Practical	2						
3	**January-2022**											
	2nd Week	4	**Unit-V: Applications of**		Lecture Method	4			Students Seminar			

			UV-Vis spectroscopy; Calculation of lambda maximum of dienes, alpha, beta-unsaturated ketones by Woodward fieser's rules; Beer's law; Introduction to NMR Spectroscopy;									
		2	Organic Preparations		Practical	2						
	3rd Week	2	**Unit-IV: Molecular Spectroscopy:** Theory and Principle of NMR Spectroscopy; equivalent and non-equivalent protons, position of signals.		Lecture Method	2			Assignment			
		2	Organic Preparations		Practical	2						
4	**February-2022**											
	1st Week	3	**Unit-IV: Molecular Spectroscopy:** Chemical shift, NMR splitting of signals - spin-spin coupling, coupling constants.		Lecture Method	3						

			Applications of NMR with suitable examples - ethyl bromide, ethanol, acetaldehyde, 1,1,2-tribromo ethane, ethyl acetate, toluene and acetophenone.									
		2	Organic Preparations		Practical	2						
	2nd Week	4	**Unit-I Chemistry of Halogenated Hydrocarbons:** Alkyl halides: Methods of preparation and properties, nucleophilic substitution reactions; SN1, SN2 and SNi mechanisms with stereochemical aspects and effect of solvent; nucleophilic substitution vs elimination; Williamson's synthesis; Aryl halides: Preparation(including preparation from diazoniumsalts)		Lecture Method	4			Assignment			

			and properties, nucleophilic aromatic substitution; SNAr, Benzyne mechanism.									
		2	Organic Preparations		Practical	2						
	3rd Week	4	**Unit-I Chemistry of Halogenated Hydrocarbons:** Relative reactivity of alkyl, allyl, benzyl, vinyl and aryl halides towards nucleophilic substitution reactions. **Unit-I: Alcohols & Phenols** Alcohols: preparation, properties and relative reactivity of 1°, 2°, 3° alcohols; Bouvaelt-Blanc Reduction; Oxidation of diols by periodic acid and lead tetra acetate, Pinacol-Pinacolone rearrangement;		Lecture Method	4						
		2	Organic Preparations		Practical	2						
	4th Week	2	**Unit-I: Alcohols**		Lecture	2			Assignment			

			& Phenols Phenols: Preparation and properties; Acidity and factors effecting it, Ring substitution reactions, Reimer–Tiemann and Kolbe's–Schmidt Reactions, Fries and Claisen rearrangements with mechanism		Method							
		2	Organic Preparations		Practical	2						
		Mid-II examinations										
5	**March-2022**											
	1st Week	3	**Unit-II Carbonyl Compounds:** Structure, reactivity, preparation and properties; Nucleophilic additions, Nucleophilic addition-elimination reactions with ammonia derivatives		Lecture Method	3						
		2	Organic Preparations		Practical	2						
	2nd Week	3	**Unit-II Carbonyl**		Lecture	3			Assignment			

			Compounds: Mechanisms of Aldol and Benzoin condensation, Claisen-Schmidt, Perkin, Cannizzaro and Wittig reaction, Beckmann haloform reaction and Baeyer Villiger oxidation, α-substitution reactions, oxidations and reductions (Clemmensen, wolf–kishner, with LiAlH4 & NaBH4).		Method							
		2	Organic Preparations		Practical	2						
	3rd Week	4	**Unit-II Carbonyl Compounds:** Addition reactions of α,β-unsaturated carbonyl compounds: Michael addition. Active methylene compounds: Keto-enol tautomerism. Preparation and synthetic applications of diethyl malonate and		Lecture Method	4						

			ethylacetoacetate.									
		2	Organic Preparations		Practical	2						
	4th Week	4	**UNIT-III: Carboxylic Acids and their Derivatives** General methods of preparation, physical properties and reactions of monocarboxylic acids, effect of substituents on acidic strength. Typical reactions of dicarboxylic acids, hydroxyl acids and unsaturated acids.		Lecture Method	4			Quiz			
		2	Organic Preparations		Practical	2						
	5th Week	3	**UNIT-III: Carboxylic Acids and their Derivatives:** Preparation and reactions of acid chlorides, anhydrides, esters and amides; Comparative study of nucleophilic substitution at acyl group- Mechanism of		Lecture Method	4			Assignment			

			acidic and alkaline hydrolysis of esters, Claisen condensation, Reformatsky reactions and Curtius rearrangement									
		2	Organic Preparations		Practical	2						
6	**April-2022**											
	1st Week	4	**UNIT-III: Carboxylic Acids and their Derivatives:** Reactions involving H, OH and COOH groups- salt formation, anhydride formation, acid chloride formation, amide formation and esterification (mechanism). Degradation of carboxylic acids by Huns-Diecker reaction, decarboxylation by Schimdt reaction, Arndt-Eistert synthesis, halogenation by Hell- Volhard-						Students Seminar			

			Zelinsky reaction.									
		2	Organic Preparations		Practical	2						
	2nd Week	**End Semester Examinations**										

Annual Curricular Plan 2021-22 (II-B.Sc.-IV- Semester – C1 (B.Z.C)-Section)						
S.No.	**Month & Week**	**Hours Available**	**Syllabus & Topic**	**Addl. Inputs/**	**Curricular Activities**	**Co-curricular Activities**

				Value Addition taught	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	It not alternate date
1	**April-2022**											
	3rd Week	4	**Unit-I: Coordination Chemistry** IUPAC nomenclature of coordination compounds, Structural and stereoisomerism in complexes with coordination numbers 4 and 6. Valence Bond Theory (VBT): Inner and outer orbital complexes. Limitations of VBT.		Lecture Method	4						
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	4th Week	4	**Unit-I: Coordination Chemistry:** Crystal field effect, octahedral symmetry. Crystal field stabilization energy (CFSE), Crystal field effects for weak and strong fields.		Lecture Method	4						

			Tetrahedral symmetry, Factors affecting the magnitude of crystal field splitting energy, Spectrochemical series,									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
2	**May-2022**											
	1st Week	3	**Unit-I: Coordination Chemistry:** Comparison of CFSE for Octahedral and Tetrahedral complexes, Tetragonal distortion of octahedral geometry, Jahn-Teller distortion, square planar coordination.		Lecture Method	3	Yes					
		2	Conductometric and Potentiometric Titrimetry		Practical	2	Yes					
	2nd Week	4	**UNIT –II: Inorganic Reaction Mechanism**: Introduction to		Lecture Method	4	Yes		Assignment	1	Yes	

			inorganic reaction mechanisms. Concept of reaction pathways, transition state, intermediate and activated complex. Labile and inert complexes, ligand substitution reactions - SN1 and SN2,Substitutionr eactionsinsquare planar complexes, Trans-effect, theories of trans effect and its applications									
		2	Conductometric and Potentiometric Titrimetry		Practical	2	Yes					
	3rd Week	2	**UNIT –II: Stability of metal complexes:** Thermodynamic stability and kinetic stability, factors affecting the stability of metal complexes, chelate effect, determination of composition of complex by Job's		Lecture Method	2	Yes					

			method and mole ratio method.									
		Mid-I Examinations										
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	4th Week	4	**Unit-II: Bioinorganic Chemistry:** Metal ions present in biological systems, classification of elements according to their action in biological system. Geochemical effect on the distribution of metals, Sodium/K-pump, carbonic anhydrase and carboxypeptidase.		Lecture Method	4			Assignment			
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	5th Week	2	**Unit-II: Bioinorganic Chemistry:** Excess and deficiency of some trace metals. Toxicity of metal		Lecture Method	3						

			ions (Hg, Pb, Cd and As), reasons for toxicity, Use of chelating agents in medicine, Cisplatin as an anti-cancer drug.									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
3	**June-2022**											
	1st Week	2	**Unit-II: Bioinorganic Chemistry:** Iron and its application in bio-systems, Haemoglobin, Myoglobin. Storage and transfer of iron.		Lecture Method	2			Students Seminar			
	2nd Week	4	**Unit-III: Phase rule** Concept of phase, components, degrees of freedom. Thermodynamic derivation of Gibbs phase rule. Phase diagram of one component system - water system, Study of Phase diagrams of		Lecture Method	4						

			Simple eutectic systems i) Pb-Ag system, desilverisation of lead ii) NaCl-Water system									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	3rd Week	4	**Unit-III: Phase rule** Congruent and incongruent melting point-Definition and examples for systems having congruent and incongruent melting point , freezing mixtures. **UNIT-IV: Electrochemistry** Specific conductance, equivalent conductance and molar conductance-Definition and effect of dilution. Cell constant. Strong and weak electrolytes,Kohlr ausch's law and its applications,		Lecture Method	4			**Assignment**			
		2	Conductometric		Practical	2						

			and Potentiometric Titrimetry									
	4th Week	4	**UNIT-IV: Electrochemistry** Definition of transport number, determination of transport number by Hittorf's method. Debye-Huckel-Onsagar's equation for strong electrolytes (elementary treatment only), Application of conductivity measurements-conductometric titrations. Electrochemical Cells- Single electrode potential.		Lecture Method	4						
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	5th Week	**Mid-II examinations**										
4	**July-2022**											
	1st Week	2	**UNIT-IV: Electrochemistry** Types of electrodes with examples: Metal-metal ion, Gas electrode, Inert		Lecture Method	2						

			electrode, Redox electrode, Metal-metal insoluble salt- salt anion.									
	2nd Week	3	**UNIT-IV: Electrochemistry** Determination of EMF of a cell, Nernst equation, Applications of EMF measurements - Potentiometric titrations. Fuel cells- Basic concepts, examples and applications **UNIT-V: Chemical Kinetics** The concept of reaction rates. Effect of temperature, pressure, catalyst and other factors on reaction rates.		Lecture Method	3			Quiz			
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	3rd Week	4	**UNIT-V: Chemical Kinetics** Order and molecularity of a reaction,		Lecture Method	4						

			Derivation of integrated rate equations for zero, first and second order reactions (both for equal and unequal concentrations of reactants). Half–life of a reaction. General methods for determination of order of a reaction.									
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
	4th Week	4	**UNIT-V: Chemical Kinetics** Concept of activation energy and its calculation from Arrhenius equation. Theories of Reaction Rates: Collision theory and Activated Complex theory of bimolecular reactions. Comparison of the two theories (qualitative treatment only)		Lecture Method	4			Assignment			
		2	Conductometric		Practical	2						

			and Potentiometric Titrimetry									
	5th Week	4	**UNIT-V: Chemical Kinetics** Enzyme catalysis-Specificity, factors affecting enzyme catalysis, Inhibitors and Lock & key model. Michaels-Menten equation-derivation, significance of Michaelis-Menten constant. **Remedial Classes**		Lecture Method	4			Student Seminar			
		2	Conductometric and Potentiometric Titrimetry		Practical	2						
5	**August-2022**											
	1st Week	**End Semester Examinations**										

Govt. college for women, GUNTUR, IQAC. 20-21.

Annual Academic Curricular Plan - III B. Sc paper VI - semester V

Faculty Name: M. KAMALA KARUNA

ANNUAL CURRICULAR PLAN 2020-21

Sl. No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hrs Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hrs Allotted	Whether Conducted	If not alternate date
	November 2020											
	1st week	3	Introduction of syllabus , question paper model Introduction to Chemical kinetics		Lecture method	3	yes					
	2nd week		IV sem end practical exams		————							
	3rd week		II Sem end practical exams		----------							
	4th week	3	Chemical kinetics –reaction rate, order, molecularity. derivation of rate constants, I,II and 0 order reactions effect of temperature on rate		lecture method and problem solving	2+1	yes		Numericals on rate, order	yes		
	December '20											

1st week	5	Chemical kinetics – collision theory of reaction rate-activation energy Photo chemistry – laws of photo chemistry, quantum yield		Online&of f line L M							
2ND week	3	photo sensitized reactions – photo physical processes-	Solar cells introduction	Lecture method	3h	yes					
3rd week	3	Bio inorganic chemistry Sources, functions and deficiency effects		Lecture method	2h	yes.		Assignm ent	1	yes.	
4th week		Christmas holidays----------									
5th week	2	Porphyrenes structure -heamoglobin and chlorophyll-functions		Lecture method	2h	yes					
January 21											
1st week	2	Importance of macro elements	HSAB primary treatment	Lecture method	2h	yes					
2ND week	2	----------1st mid exams----									
3rd week	3	Hetero cyclic compounds Methods of preparation,structure aromaticity of pyrrole ,furan and thiophene		Lecture method	2h	yes		Guest lecture	1	NO	
4th week	3	Hetero cyclic compounds Reactivity of pyrrole and pyridine	Anti aromaticity	Lecture method	2h	yes.		Quiz	1	NO	

	February											
	1st week		Reactivity of metal complexes		Lecture method	2h						
	2ND week		II mid exams	----------								
	3rd week	3	Reactivity of square planar complexes carbohydrates – structural elucidation of glucose	classification of carbohydrate	Lecture method	2h			Group disn	1h	yes.	
	4th week	3	Structural elucidation of Fructose and interconvertions Aminoacids-classification and methods of preparation.									
	March'21											
	1st week	3	properties of amino acids, structure of proteins		Lecture method	3h						
	2ND week		Revision of syllabus		Lecture method	1			Discussion	2	yes.	
	3rd week	---- ---- ---	Sem end practical exams		----------							
	4th week		----------	Sem end exams	---------- -							

Lecturer

dept.In-charge

HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
Govt. College for Women, GUNTUR

Principal

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Annual Academic Curricular Plan 2020-'21

Cluster VIIIB: Analysis of applied industrial products **Faculty Name: M. KAMALA KARUNA**

Sl. No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/ Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
	April											
	3rd week	3	Introduction to syllabus and model paper Introduction to chemistry and industry		Lecture method	3	yes	offline				
	4 th week	2	Analysis of soaps :moisture content, alkali content, fatty acids and silicates and chlorides	Stages of Soap manufacturing	Lecture method	3h	yes	11				
	May' 21											
	Ist week	3	Analysis of silicates and chlorides Analysis of paints-vehicles and pigments	Gravimetric analysis	Lecture method	3h	yes	online due to CoVID.	Assignment			

Sl. No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/ Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
	2nd week	3	Analysis of barium sulphate ,lead in paintsAnalysis of iron and zinc		Lecture method	3h	yes	online				
	3rd week	3	Analysis of oils-saponification, iodine value ,bromine, acetyl and ester value		"	2h	yes	11	Assignment	45 min	yes.	
	4th week	3	Analysis of industrial solvents - determination of methoxyl and N-methyl groups	Effect of industrial solvents on health	"	3h	yes.	11				
	June' 21											
	1st week	3h	Analysis of fertilizers Analysis of pesticides	Principle of atomic absorption spectrscopy	"	3h	yes	11	Student seminar	1hr	yes.	
	2nd week	3h	Analysis of pesticides Analysis of starch, sugars and cellulose and paper		"	2h	yes	11	Student seminars online	1h	yes	

Sl. No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/ Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
	3rd week	3 h	Gas analysis-CO2, CO, O2. H2, N2, hydrocarbons	Types of fossil fuels and effect on enviroment	Lecture method	3h	yes		I Mid exams	1h	yes	
	4th week	3 h	Analysis of fuel gases-octane and cetane number,water gas,producer gas kerocene gas		Lecture method	3h	yes					
	July											
	1st week	3h	Ultimate gas analysis Analysis of complex materials – analysis of cement		Lecture method							
	2nd week	3h	Analysis of sesqui oxides ,lime ,magnesia,sulphuric anhydride Analysis of glass- silica sulphur barium,As,Antimony		"	2h	yes		Student seminar	1h	yes	
	3rd week	3h	Analysis of total R2O3 ,total alkalies,aluminium, chloride in glass		"	2h	yes		II Mid exams	1h	yes	

Sl. No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/ Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
	4th week	3h	Revision	---------- -	Remedial classes	3h	yes, online/offline					
	August	1st week	Sem end theory exams	Due to covid exams are conducted in September.								
		2nd week	Sem end exams									

Lecturer

In-charge of the Dept.

HEAD OF THE DEPARTMENT
DEPARTMENT OF CHEMISTRY
Govt. College for Women, GUNTUR.

V.R.

Principal

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N. Rajyalakshmi

ANNUAL CURRICULAR PLAN 2020-21 III Bcom 'Programming in C' Curricular Plan

Sl No	Month & Week	Hours Availabl e	Syllabus &Topic	Addl.Input/Value Addition taught	Curricular Activity				Co Curricular Activity			
					Activity Conducte d	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducte d	If not alternate date
1	Nov 1st week	5	**UNIT -1** Introduction to Algorithms and Programming Languages: Algorithm – Key features of Algorithms – Some more Algorithms – Flow Charts – Pseudo code – Programming Languages – Generation of Programming Languages	Demo On Computer introduction	theory, Practical	4	Yes		JAM	1	Yes	
2	Nov 2nd week	5	**UNIT-1** Structured Programming Language-Design and Implementation of Correct, Efficient and Maintainable Programs. **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	Demo OnTypes of language	theory, Practical	4	Yes		Q & A	1	Yes	
3	Nov 3rd week	5	Basic Data Types in C – Variables – Constants – I/O Statements in C-		theory, Practical	4	Yes		Quiz	1	No	Jan 1st week
4	Nov 4th week	4	Operators in C- Programming Examples – Type Conversion and Type Casting	Demo on Logical operators	theory, Practical	3	Yes		Exam	1	Yes	
5	Dec 1st week	5	**UNIT-II** Decision Control and Looping Statements: Introduction to Decision Control Statements –	Demo on advantages of loops	theory, Practical	4	Yes		Q & A	1	Yes	
6	Dec 2nd week	5	Conditional Branching Statements –		theory, Practical	4	Yes		Quiz	1	No	Jan 1st week
7	Dec 3rd week	5	Iterative Statements – Nested Loops – .	Demo On Exit statement	theory, Practical	4			Seminar	1		
8	Dec 4th week	4	Break and Continue Statement – Goto Statement	Demo On Types of functions	theory, Practical	3			Exam	1		
9	Jan 1st week	5	**UNIT-III** Functions: Introduction – using functions – Function declaration/ prototype – Functiondefinition –	Demo On Predefined functions	theory, Practical	4			JAM	1		
10	Jan 2nd week	5	function call – return statement –		theory, Practical	4			Assignme nts	1		

11	Jan 4th week	5	– Passing parameters – Scope of variables – Storage Classes – Recursive functions –		theory, Practical	4			Exam	1		
12	Feb 1st week	4	**UNIT -IV** Arrays: Introduction – Declaration of Arrays – Accessing elements of the Array – StoringValues in Array – Calculating the length of the Array – Operations on Array	Demo On Advantages of arrays	theory, Practical	3			Seminar	1		
13	Feb 2nd week	5	one dimensional array for inter-function communicationTwo dimensional Arrays – Operations on Two Dimensional Arrays	Demo On Functions with arrays	theory, Practical	4			Exam	1		
14	Feb 3rd week	5	Two Dimensional Arrays for inter-function communication – Multidimensional Arrays – Sparse Matrices		theory, Practical	4			Assignments	1		
15	Mar 1st week	5	**UNIT-V** Introduction –Suppressive Input – String Taxonomy – String Operations		theory, Practical	4			Quiz	1		
16	Mar 2nd week	4	Miscellaneous String and Character functions		theory, Practical	3			Assignments	1		

Signature of the Lecturer

Signature of the HOD

Lecturer In-charge
COMPUTER DEPARTMENT
Govt. College for Women
GUNTUR

Signature of IQAC

Signature of the Principal

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Class &Program :III B.Sc A1, A2 **Subject :** Physics **Year :** IIIYr **Semester : V** **Course :Electricity, Magnetism & Electronics** **Code : PHY 5302** **Teacher : N. ManjulaBharathi**

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided / taught	Name of curricular Activity conducted., &hrs allotted	If not alternate date	Name of co-curricular Activity conducted., &hrs allotted	If not alternate date	Remarks
Nov First week	Number systems - Conversion of binary to decimal system and vice versa.). Basic logic gates,	Laws of Boolean algebra Binary addition and subtraction (1's and 2's complement methods)	**Teaching and learning 3 + 1**				
Nov Second Week	De Morgan's laws-statement and proof, NAND and NOR as universal gates, exclusive- OR gate, Half adder and Full adder,		**Teaching and learning 3 + 1**				
Nov Third Week	PN Diode- IV Characteristics, Zener Diode – its IV characteristics -	Types of Semiconductors,	**Teaching and learning 3**				
Nov Fourth Week	PNP and NPN transistors, CB, CE and CC configurations – Relation between α, β and γ–	majority carriers movement	**Teaching and learning 3**				

Dec First Week	PNP transistor (CE) characteristics , problems		**Teaching and learning 2**				
Dec Second Week	Gauss's law statement and its proof- Electric field intensity due to Uniformly charged sphere and ***Infinite plane sheet of charge***,	Electric Potential due to charged spherical shell	**Teaching and learning 3**				
Dec Third Week	differential form of Gauss law-Electric Potential- Equipotential surfaces Biot-Savart's law, explanation		**Teaching and learning 3**				
Dec Fourth Week	calculation of B due to long straight wire, a circular current loop– Particle accelerators- cyclotron.	B of solenoid using Biot-Savart law	**Teaching and learning 3**				
Jan First Week	Hall effect and its applications **MID exams**		**Teaching and learning 1**		**Student Seminar 1**		

Jan Second Week	**Pongal Vacation**				**Student's seminar 1**		
Jan Third Week	Idea of displacement current - Maxwell's equations (integral and differential forms) (no derivation), Maxwell's wave equation (with derivation),	Pointing theorem proof	**Teaching and learning 3**				
Jan Fourth Week	Transverse nature of electromagnetic waves.Pointing theorem (statement only), Electric dipole moment and molecular polarizability		**Teaching and learning 3**				
Feb First Week	- Electric displacement D, electric polarization P – relation between D, E and P- Dielectric constant and susceptibility.	Magnetic dipole moment, Types of polarizatio n	**Teaching and learning 3**				
Feb Second Week	Gauss law in dielectrics MID exams		**T-L 1**				
Feb Third Week	Faraday's law-Lenz's law- Self and mutual inductance,.Transformer	Power in ac circuits.Ener	**T-L 3**				

Feb Fourth Week	calculation of self inductance of a long solenoid, Alternating current - Relation between current and voltage in pure L, C & R circuits	gy stored in magnetic field	**T-L 3**				
March First Week	,LCR series and parallel resonant circuit, Q –factor,	Production of electromagnetic waves (Hertz experiment	**T-L 2**				

N. M. Bharathi
Signature of the lecturer

V. R. [illegible]
Signature of the principal

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Annual Academic Curricular Plan **Dept. of Microbiology , GCW(A), Guntur** **2021-22**

Name of the Lecturer:Mrs. N.PRAVEENA KUMARI Class &Program: IIIB.Sc, B1 (MBC) Year:III Semester: V

Subject:Microbiology Course: Food and Industrial Microbiology Code:MB6308

	Syllabus / Topic	Additional input/ Value addition provided / taught	Name of curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date
SEPTEMBER Ist week 3hrs	Introduction of the syllabus **UNIT- I** Intrinsic and extrinsic parameters that affect microbial growth in food Microbial spoilage of food - fruits, vegetables,	Isolation and identification of spoilage organisms	Lecture-1hr Lecture-2hr		Brain storming Elicitation and discussion	
2nd week 3hr	Microbial spoilage of food -milk, meat, Egg, bread	MBRT test	Lecture-2hrs		Seminar -1hr	
3nd week 3hr	Microbial spoilage of bread and canned foods Food intoxication (botulism).	Staphylococcal food poisoning	Lecture-1hr Lecture-1hr		Seminar-1hr	
4nd week	Food-borne diseases (salmonellosis) and their detection.		Lecture-2hr		Student PPT	

3hr	**UNIT- II** Principles of food preservation - Physical and chemical methods	Radiation methods of preservation	Lecture-2hr		Presentation-1hr Flipped class room PPT Presentation-1hr	
OCTOBER 1st week 2hrs	Fermented Dairy foods – cheese and yogurt. Microorganisms as food – SCP	Edible algae	Lecture-2hrs		Expo on fermented foods -1 day	
2nd week 3hrs	Edible mushrooms (white button, oyster and paddy straw). Probiotics and their benefits	Prebiotics	Lecture-2hr		Expo on probiotic foods-1day	
3rd week 3hrs	**Mid exams-I**					
4thweek 3hrs	**UNIT- III** Microorganisms of industrial importance – yeasts, molds, bacteria, actinomycetes. IsolationandScreeningofindustriallyimportantmicroorganisms.	Industrially important algae	Lecture-1hr Lecture demonstration-1hr		Seminar-1hr	

NOVEMBER 1st week 3hrs	Outlines of strain improvement. Types of fermentation processes – solid state, liquid state, batch, fed-batch, continuous.	rDNA technology	Lecture-2hrs		Brain storming and discussion - 1hr	
2nd week 2hrs	Design of fermenter.	Types of fermenters	Lecture-2hrs		Demonstration in Industrial tour-1day	
3rdweek 3 hrs.	Downstream processing - filtration, centrifugation, cell disruption, solvent extraction.	HPLC	Lecture-1hrs Lecture demonstration-1hrs		Assignment - 1hr	
4th week	**Mid Exams-II**					
DECEMBER 1st week 3hrs	**UNIT- V** Microbial production of Industrial products - Citric acid, Ethanol	Semisynthetic penicillin	Lecture-1hr		Seminar-1hr	
2nd week 3hrs	Microbial production of Industrial products -amylases, penicillin				Elicitation	
3rd week 3hrs	**UNIT- V** Microbial production of Industrial products -vitamin B12.Glutamic acid	Biosynthesis of Vitamin B12	Lecture-02		Assignment-1hrs	

JANUARY 1st week 3hrs	Remedial and tutorial classes					
2nd week 3hrs	Remedial and tutorial classes					
3rd week 3hrs	**Semester end examinations**					

Mrs. N. PRAVEENA KUMARI
Head of the Department
Dept. of Microbiology
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ANNUAL CURRICULAR PLAN 2020-21
Physiology HS1312 I B.Sc. H.Sc. I Semester

Sl.No	Month & Week	Hours Available	Syllabus &Topic	Addl.Input/Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If al t c
1	Dec 1st,2nd 3rd weeks	14	Human body systems Cell and Tissues Blood and lymph Cardio vascular system	Observing the complete blood analysis report of diseased or sick person to identify the normal ranges of all blood constituents	Estimated Hb % of blood & BP estimation	12	Yes		Quiz on types of tissues & cell	3	Yes	
2	dec 4th,, jan 1st& 2nd weeks	12	A. Respiratory system B. Urinary System	Complete urine analysis report of patient suffering from kidney diseases to observe and	Observation of (lungs)breathing process by	3	Yes		seminar, Assignments on urinary system	3	Yes	

				understanding its elements	stethoscope							
3	Jan 4thweek &Feb 1st week	10	Digestive system						seminar, Assignments	3	Yes	
4	Feb 2nd & 3rd week	12	Nervous system		Observing human skeleton model for counting spinal vertebrae	3	Yes		seminar, Assignments on nervous system	3	Yes	
5	Feb 4thweek March 1,2,3rd weeks	12	Reproductive system & Endocrine glands	Health education on personal hygiene	.				Quiz,seminar, Assignments	3	Yes	

ANNUAL CURRICULAR PLAN 2020-21 Diet therapy- II & Diet counseling HS5311 III B.SC H.Sc V SEMESTER												
Sl.No	**Month & Week**	**Hours Available**	**Syllabus &Topic**	**Addl.Input/Value Addition taught**	**Curricular Activity**				**Co-Curricular Activity**			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
1.	Sept 1st,2nd,3rd weeks		Introduction to diet counseling scope of diet counseling in medicine,	Ppt	Sliptest		yes		Assignment,seminar			
2.	Sept 4thweek & oct 1st week		Role of dietitian, Dietary department structure & functions	Pictures	Sliptest				Assignment,seminar			
3	Oct 2nd,3rdweeks	8	techniques of diet counseling NCP,Medical terminology,co	Pictures / ppt	Sliptest				assignment & seminar			

			mmunication skills.									
4	Nov 1st,2nd ,3rd, 4th weeks Dec 1stweek	10	Diet in fevers: Causes Types-Typhoid , Tuberculosis Dietary management Kidney Diseases: Causes, symptoms and dietary management of following: Nephritis, Nephrosis Urinary calculi Renal failure Dialysis	Illustrations	Assignments Slip test	2	Yes		Assignments,seminar Diet charts Project on types of feedings			
4	Dec 2nd ,3rd weeks	10	Obesity: Types ,Causes Assessment, Dietary management	Pictures of obesity grades	Slip test	1	Yes		Assignment,& Seminars Diet charts Project on types of feedings			

4	Dec 4th week,jan 1st week	5	Underweight: Definition ,Causes Assessment, Dietary management	BMI charts					Diet charts assignment and seminar Project on types of feedings			
5	jAn 2nd,3rd,4th ,feb1st week	5	Cancers: Risk factors ,Types of cancer ,Symptoms Physiological changes, Dietary management & Diet counseling during cardiovascular diseases	Pictures	Seminars	2	Yes		Diet charts Project on types of feedings			

ANNUAL CURRICULAR PALN 2020-21 Bakery and Confectionery HS5314 III B.SC H.Sc V Semester												
Sl.No	**Month & Week**	**Hours Available**	**Syllabus &Topic**	**Addl.Input/Value Addition taught**	**Curricular Activity**				**Co-Curricular Activity**			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
1	Sept 1st,2nd,3rd weeks	3	Introduction to baking science: Bakery concepts, Different types of baked products,	Sliptest					Assignments and seminar			
2.	Sept 4thweek & oct 1st week	4	Tools and machinery used in baking: Large equipment Small equipment Maintenance	Ppt & sliptest	Assignments	2	Yes		Assignments and seminar			

3	Oct 2nd,3rd weeks &	3	Basic material used in bakery and confectionary : Functional classification		Seminar	1	Yes		Assignment & seminar			
4	Nov 1st,2nd,3rd, 4th weeks	8	Essential ingredients used in bakery: Flour- selection, properties and specifications Types of flours- Rice flour, Millet flour, corn flour, Soya flour, Malt and Rye flour, Potato flour, Soft Wheat, Suitability of flours for bakery product, Tests to evaluate flour quality Rheological prosperities Ingredients influence physical characteristics of dough	Examples	Slip tests				Assignments & seminars on essential ingredients used in bakery			

		3 3	Common dough functionality Role of egg in Bakery Role of fat in bakery Role of sugars in bakery Leavening and flavorings Other ingredients used in bakery									
5	Dec1st,2nd weeks	4	Biscuits and cookies: Role of ingredients in cookies preparation, Techniques of preparation Faults and remedies		Seminars	2	Yes		Seminars and assignments on techniques of biscuits preparation			
6	Dec 3rd week		Cakes : Different types of cakes	Illustrations	Seminar	1	Yes		Seminar on cake decoratio			

	& Jan 1st		Role of ingredients in cake making Cake making techniques Cake faults and causes General precautions in preparation Cake decoration						n methods			
7	Jan 2nd week	4	Bread : Types of bread Role of ingredients in bread in baking	You tube					Seminar on role of breads in baking			

Annual Academic Curricular Plan **V. Kavya, Dept. of Food technology** ***2020-21***

Month, Week & No. of Hours	**Syllabus / Topic**	**Additional input/ Value addition provided/ taught**	**Name of the curricular Activity conducted., date & hrs allotted**	**If not alternate date**	**Name of co - curricular Activity conducted., date & hrs allotted**	**If not alternate date**	**Remarks**
March 1st Week 2 hrs March 2nd Week 6 hrs March 3rd Week 3 hrs March 4th Week 3 hrs	**Unit – I : Cereals & Millets: 14 hrs** • Historical evolution of food processing technology • Cereals & millets – Structure and composition, properties and nutritional attributes of rice, wheat, maize, barley, millets & oats, malting. • Gelatinization of starch • Rice- Parboiling of rice- advantages and disadvantages	Bridge Course- Concepts and definitions of food technology, food groups, fermented & unfermented foods. How to draw Structure of the cereals	Bridge course 2-03-21 to 07-03-21 7 hrs		Bridge course exam 08-03-2021 ST on structure & composition of cereals		

Month, Week & No. of Hours	*Syllabus / Topic*	**Additional input/ Value addition provided/ taught**	**Name of the curricular Activity conducted., date & hrs allotted**	**If not alternate date**	**Name of co-curricular Activity conducted., date & hrs allotted**	**If not alternate date**	**Remarks**
April 1st Week 6 hrs	**Unit – II: Pulses & Oils: 12 hrs** • Pulses – Structure and composition of pulses, toxic constituents in pulses.	Structure of the Pulses	Flash cards		Pen- paper test		
April 2nd Week 6 hrs	• Oils - Refining of oils, types – steam deodorization & hydrogenation • Rancidity – types – hydrolytic & oxidative rancidity and its prevention	Types of oils used for cooking	PPT		Assignments given 1-04-2021 Last date for submission 08-04-2021		

Annual Academic Curricular Plan **V. Kavya, Dept. of Food technology** **2020-21**

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
April 3rd Week 3 hrs April 4th Week 3 hrs May 1st Week 4 hrs	**Unit III: Fruits and Vegetables: 10 hrs** • Classification of fruits and vegetables, general composition. • Enzymatic browning, names and sources of pigments, Dietary fibre. • Post-harvest changes in fruits and vegetables – Climacteric rise, horticultural maturity, physiological maturity, physiological changes, physical changes, chemical changes ,pathological changes during the storage of fruits and vegetables.	How types of fruits are you seen Enzymatic reactions	Charts Experiment on enzymatic reactions		Mid exams 15-04-2021 to 17-04-2021		

Annual Academic Curricular Plan **V. Kavya, Dept. of Food technology** **2020-21**

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
May 2nd Week 3 hrs May 3rd Week 6hrs May 4th Week 3 hrs	**Unit – IV Milk & Milk Products: 12 hrs** • Physical properties of milk, Composition of milk- Lactose, milk fat, protein & enzymes. • Various stages of processing- Filtration, Clarification, Homogenization, Pasteurization • Role of milk & milk products in cookery.		Composition of milk PPT Downloaded various stages of processing of milk from you tube		ST on composition of milk ST on various stages of processing of milk Assignments given 27-05-2021 Last date for submission 03-06-2021		

Annual Academic Curricular Plan — **V. Kavya, Dept. of Food technology** — **2020-21**

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
June 1st Week 4 hrs June 2nd Week 2 hrs June 3rd Week 2hrs June 4th Week 4 hrs	**Unit –V Animal Foods: 12 hrs** • Structure of hen's egg, composition & nutritive value, egg proteins, characteristics of fresh egg. • Deterioration of egg quality, difference between broiler & layers. • Meat- Definition of carcass, concept of red meat & white meat, composition of meat. • Fish- Classification of fish (fresh water & marine) • selection of fish, Spoilage- microbiological, physiological, biochemical		Quiz		Pen- paper test Mid exams 09-07-21 to 13-07-21 ST on Animal foods		

Signature of the Lecturer I/C
Lecturer in Bio-Chemistry
Government College for Women
GUNTUR.

V. kavya.
Signature of the teacher.

Signature of the principal
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Annual Academic Curricular Plan **V. Kavya, Dept. of Food Technology** **2020-2021**

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
July 1st Week 2 hrs July 2nd Week 3 hrs July 3rd Week 3 hrs July 4th Week	**Unit – I : Principles of Food Preservation Technology: 8 hrs** • Classification of microorganisms based on temperature, pH, water activity, nutritent & oxygen requirement, typical growth curve of microorganisms • Classification of food based on pH, definition of shelf life, perishable foods, semi perishable foods & shelf stable foods	How to draw – Curves	.Classification of micro organisms – PPT Flash cards for curves		ST on Classification of micro organisms Preparation holidays I Semester exams		

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
August 1st Week					Practical exams for semester - I		
August 2nd Week 6 hrs August 3rd Week 5 hrs	**Unit – II : Thermal Processing & Non Thermal Processing : 11 hrs** • Thermal processing - Classification of thermal treatments, mode of action, commercial heat preservation methods : Sterilization,pasteurization & blanching – objectives, types. Pros & Cons of high temperature preservation. • Non thermal processing – Irradiation,pulsed electric fields, high intensity pulsed light, high hydrostatic pressure, membrane filtration		Thermal processing – PPT		Assignments given 15-08-2021 Last date for submission 22-08-2021		

Annual Academic Curricular Plan **V. Kavya, Dept. of Food Technology** **2020-2021**

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
August 4th Week 3hrs September 1st Week 3 hrs September 2nd Week 4 hrs	**Unit – III : Freezing and Refrigeration: 10 hrs** • Introduction to cool storage,refrigeration & freezing, principle of freezing. • Freezing curve, changes occurring during freezing. • Types of freezing – slow freezing, quick freezing. • Introduction to thawing, changes during thawing & its effect on food.	How to draw curves How to prepare the charts	Group discussion.		Celebration of Nutritional week Mid exams 07-09-2021		

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co-curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
September 3rd Week 4 hrs September 4th Week 4hrs October 1st Week 2 hrs October 2nd Week 5hrs	**Unit – IV : Drying and Evaporation: 15 hrs** • Definition, drying as a means of preservation, heat & mass transfer. • Factors affecting rate of drying, normal drying curve, types of driers – Tray cabinet dryer, tunnel dryer – used in the food industry. • Evaporation – Definition, factors affecting evaporation, type of evaporators- Falling Film evaporator. • Forced circulation Evaporator & LTV evaporator used in food industry.	Importance of drying			Assignments given 21-09-2021 Last date for submission 28-09-2021 ST on type of evaporators Mid exams 08-10-2021		

Annual Academic Curricular Plan **V. Kavya, Dept. of Food Technology** **2020-2021**

Month, Week & No. of Hours	Syllabus / Topic	Additional input/ Value addition provided/ taught	Name of the curricular Activity conducted., date & hrs allotted	If not alternate date	Name of co- - curricular Activity conducted., date & hrs allotted	If not alternate date	Remarks
October 3rd Week 6hrs October 4th Week 10 hrs November 1st Week November 2nd & 3rd Week November 4th Week	**Unit – V : Irradiation: 16 hrs** • Irradiation – Introduction, units of radiation. • Kinds of ionizing radiations used in food irradiation, mechanism of action, application and benefits of irradiation processing in food industry. • Quality & safety of irradiated foods.		PPT on irradiation		Dushhera holidays Celebration of World Food Day ST on irradiation Completion of syllabus II Semester exams Semester – 2 Practical exams		

Signature of the Lecturer I/c
Lecturer in Bio-Chemistry
Government College for Women
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V. Kavya
Signature of the Teacher

V.R.
Signature of the principal
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GUNTUR.

V. Padmavathi

ANNUAL CURRICULAR PLAN 2020 - 21 II B.sc(Computers)-Sem-IV

Data Structures

Sl. No	Month & Week	Hours Avail-able	Syllabus &Topic	Addl.Input/Value Addition taught	Curricular Activity				Co-Curricular Activity			
					Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date	Activity Conducted	Hours Allotted	Whether Conducted	If not alternate date
1	Apr 3rd Week	6	**Unit-I** Concept of Abstract Data types-Data types, Data Structures,storageStructeres, File structures, Primitive, Nonprimitive, linear, Non linear Data Structures	Demo On Primitive data types	Theory + Practical	3+2	Conducted		Elicitation From Previous topics	1	Conducted	
2	Apr 4th Week	6	**Unit-I** Linear Lists- ADT, Array and Linked Representations, Pointers	Demo On Lists	Theory + Practical	3+2	Conducted		Assignment	1	Conducted	
3	May 1st week	5	**Unit-I** Arrays- ADT, Mappings, Representations, Sparse matrix,Sets- ADT,Operations	Demo On Arrays	Theory + Practical	2+2	Conducted		Brain Storming	1	Conducted	
4	May 2nd week	6	**Unit-I** Linked lists- Single Linked list, Double Linked list,Circular linked list and applications	Demo On Linked lists	Theory + Practical	3+2	Conducted		Exam	1	Conducted	
5	May 3rd week	6	**Unit-II** Stacks- Defination, ADT, Array and Linked Representation, implemetation and Application	Demo on Stacks	Theory + Practical	3+2	Conducted		Quiz	1	Conducted	
6	May 4th week	4	**Unit-II** Queue- Defination, ADT, Array and Linked Representation,Circular Queues, Dequeuesimplemetation and Application	Demo On Queues	Theory + Practical	2+1	Conducted		JAM	1	Conducted	

7	Jun 1st week	5	**Unit-III** Trees- Binary trees, Defination, Properties, ADT, Array and Linked representation, Implementations and Applications	Demo On Binary trees	Theory + Practical	2+2	Conducted		Seminars	1	Conducted	
8	Jun 2nd week	6	**Unit-III** Binary Search trees, Defination, Properties, ADT, Operations , Implementations and Applications, Threaded binary trees, Heap trees	Demo On BST, Heap trees, Threded binary trees	Theory + Practical	2+2	Conducted		Assignment	1	Conducted	
	Jun 4th week						Conducted		Q&A	1	Conducted	
9	July 1st week	5	**Unit-IV** Graph and its representation, Graph traversal,	Demo On Graph traversal	Theory + Practical	2+2	Conducted		Group discussions	1	Conducted	
10	July 2nd week	6	**Unit-IV** Connected components, Basic searching techniques, minimal spanning trees	Demo On Minimal spanning tree	Theory + Practical	3+2	Conducted		Exam	1	Conducted	
11	July 4th week	6	**Unit-V** Sorting and Serching- Selection, Insertion, bubble, Merge, Quick	Demo On Selection, insertion, bubble, Merge, Quick sort	Theory + Practical	3+2	Conducted		Assignment	1	Conducted	
12	Apr 3rd Week	5	**Unit-V** Heap sort, Liner search, Binary Search	Demo On Linear search, binary search	Theory + Practical	2+2	Conducted			1	Conducted	

Signature of the Lecturer

Signature of the HOD

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