

Time Table 2016-17

GOVERNMENT SCIENCE COLLEGE ANBIKAPUR SARGUJA (C.G.), B.Sc. - PART - I, II & III

Time ==>	Batch	12:00 to 12:40	12:40 to 1:20	1:20 to 02:00	02:00 to 02:40		02:40 to 03:20		03:20 to 04:00	04:00 to 04:40	04:40 to 05:20
					PRACTICAL/ THEORY						
Room No. - 01	Part - I		Maths (Mon-Sat)		Botany (Wed-Thu)		FC (Hindi/Eng) (A,B,C)			EVS (Mon-Sat)	
	Part - II			Maths (Mon-Sat)	Botany (Fri-Sat)				FC (Hindi/Eng) (Mon-Sat)		
	Part - III		Maths (Mon-Sat)		Botany (Mon-Tue)						
Room No. - 02	Part - I		Botany (Mon-Sat)		Chemistry (Fri-Sat)				FC (Hindi/Eng) (D,E)		
	Part - II				Chemistry (Mon-Tue)		Micro (Mon-Sat)				
	Part - III		Botany (Mon-Sat)		Botany (Mon-Sat)	Chemistry (Wed-Thu)					Micro (Mon-Sat)
Room No. - 03	Part - I		Zoology (Mon-Sat) (A,B)	Zoology (Mon-Sat) (C)	Zoology (Mon-Tue)		Physics (Mon-Sat)				
	Part - II		Zoology (Mon-Sat)		Zoology (Wed-Thu)		Physics (Mon-Sat)			FC (Hindi/Eng) (Mon-Sat)	
	Part - III				Zoology (Fri-Sat)						
Room No. - 04	Part - I		Chemistry (Mon-Sat)		Biotech (Wed-Thu)				Biotech (Mon-Sat)		
	Part - II			Chemistry (Mon-Sat)	Biotech (Fri-Sat)						
	Part - III			Chemistry (Mon-Sat)	Biotech (Mon-Tue)		Zoology (Mon-Sat)			Biotech (Mon-Sat)	
Room No. - 05	Part - I		IT (Mon-Sat)		Maths (Mon-Tue)						
	Part - II			IT (Mon-Sat)	Maths (Wed-Thu)		Biotech (Mon-Sat)				
	Part - III			IT (Mon-Sat)	Maths (Fri-Sat)					Physics (Mon-Sat)	
Room No. - 07	Part - I				IT (Fri-Sat) Lab Micro (Wed-Thu)				Micro (Mon-Sat)		
	Part - II				IT (Mon-Tue) Lab Micro (Fri-Sat)						
	Part - III				IT (Wed-Thu) Lab Micro (Mon-Tue)						
Room No. - 08	Part - I				Physics (Wed-Thu)						
	Part - II				Physics (Fri-Sat)						
	Part - III				Physics (Mon-Tue)						

Remarks:-

A - Microbiology
B - Biotechnology
C - Botany
D - Maths
E - IT

Dr. A.K. Tiwari - A

Dr C.R. Chandrasekhar

Dr. A. Yadav

Dr. A. Yadav

27/11/2017

TIME-TABLE

2017-18

GOVT. SCIENCE COLLEGE, AMBİKAPUR
DIST.-SARGUJA (C.G.)

	11 To 11.40	11.40 To 12.20	12.20 To 1.00	1.00 To 1.40	1.40 To 2.20	2.20 To 3.30	3.30 To 4.40
B.Sc.I	Chem. 18 IT	FC 18	Zoology 18 Maths 6	Physics 1 Botany 10	Biotech 1 Microbio 9 Maths 2	M/T - Bot/Phy W/Th - Z00. F/S - Chem./IT	Micro/ Biotech M/T W/T Evs.
B.Sc.II	Zoology 1 Maths 2	Physics 1 Botany 2	FC 1	Biotech 2 Microbio 18	IT Chem. 10	M/T - Chem/IT W/Th - Bot./Phy. F/S - Zoology	Micro/Biotech W/T
B.Sc.III	Botany 5	Chemistry 9 IT	Biotech 2 Physics 10 Microbio 9	Zoology 9 Maths 6	FC 18	M/Th - Zoology W/Th - Chem./IT F/S - Bot/Phy.	Micro/Biotech F/S
M.Sc. Maths	Theory	Theory	Theory	Theory	M-S Res. Meth & Computer	M/T Maths II W/Th Maths III F/S Maths I	
M.Sc. Chem.	Theory	Theory	Theory	Theory	M-S Res. Meth & Computer	Sem.	Pract.

Dr. A. Xa/Xo

du

Signature

Principal

(Dr. K.L. Vishwakarma)

Govt. Science College, Ambikapur

Dist.- Sarguja(C.G.)

Signature

GOVERNMENT SCIENCE COLLEGE AMBIKAPUR, DIST. SARGUJA (C.G.)
TIME-TABLE

2018-19

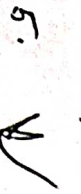
	11 To 11.40	11.40 To 12.20	12.20 To 1.00	1.00 To 1.40	1.40 To 2.20	2.40 To 3.30	3.30 To 4.40
M.Sc. Maths 1st Sem.	Theory	Theory	Theory	Theory	Theory	M-S Res. Meth & Computer	Seminar/Theory
M.Sc. Maths IIIrd Sem.	Theory	Theory	Theory	Theory	Theory	Intellectual Property Human Rights & Environment: Basics	Seminar/Theory
M.Sc. Chemistry 1st Sem.	Practical	Practical	Theory	Theory	Theory	M-S Res. Meth & Computer	Seminar/Theory
M.Sc. Maths IIIrd Sem.	Theory	Theory	Practical	Practical	Theory	Intellectual Property Human Rights & Environment: Basics	Seminar/Theory

1.  DR. XAVIER KUTUR

2.  DR. A. XALXO

3.  DR. NEELASH KUMAR

4.  MS. MADHULIKA KUTUR

5.  MR. SUSHIL KASHYAP


 (Dr. K.L. Vishwakarma)
 Principal
 Govt. Science College, Ambikapur
 Dist.- Sarguja (C.G.)

GOVERNMENT SCIENCE COLLEGE AMBIKAPUR POST, SARGUJA (C.G.)

TIME-TABLE
2018-19

	11 To 11.40	11.40 To 12.20	12.20 To 1.00	1.00 To 1.40	1.40 To 2.20	2.20 To 3.30	3.30 To 4.40
B.Sc.I	Chem. 18 IT 9	Physics 1 Botany 10	Zoology 18 Maths. 16	FC Sec A 18 Sec B 10	Biotech 1 Microbio 9 Maths 2	M/T - Bot/Phy W/Th - ZOO./IT F/S Micro/ Biotech Practical	M/T Chem. W/T Evs.
B.Sc.II	Zoology 1 Maths 2	Biotech 2 Microbio 9	FC 1	Physics 1 Botany 2	IT 16 Chem. 10	W/Th - Bot./Phy. F/S - Zoology/IT M/T Micro/Biotech Practical	W/T Chem.
B.Sc.III	Botany 10	Zoology 18 Maths 16	Biotech 2 Physics 10 Microbio 9	Chemistry 9 IT 16	FC 18	M/T - Zoology/IT F/S - Bot/ Phy. W/Th Micro/ Biotech Practical	F/S Chem.

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Dist.- Sarguja (C.G.)

GOVERNMENT SCIENCE COLLEGE AMBIKAPUR DIST, SARGUJA (C.G.)

TIME-TABLE 2019-20

	11 To 11.40	11.40 To 12.20	12.20 To 1.00	1.00 To 1.40	1.40 To 2.20	2.40 To 3.30	3.30 To 4.40	
M.Sc. Maths 1st Sem.	Theory	Theory	Theory	Theory	Theory	M-S Res. Meth & Computer	Seminar/Theory	सत्य मेव जयते
M.Sc. Maths Illrd Sem.	Theory	Theory	Theory	Theory	Theory	Intellectual Property Human Rights & Environment: Basics	Seminar/Theory	
M.Sc. Chemistry 1st Sem.	Practical	Practical	Theory	Theory	Theory	M-S Res. Meth & Computer	Seminar/Theory	
M.Sc. Maths Illrd Sem.	Theory	Theory	Practical	Practical	Theory	Intellectual Property Human Rights & Environment: Basics	Seminar/Theory	

समय-सारणी समिति

1. डॉ. जेवियर कुजूर
2. डॉ. एनमरी खलखो
3. डॉ. नीलाम कुमार
4. श्री सुशील कुमार कश्यप
5. सुश्री मधुलिका कुजूर

Principal

(Dr. K.L. Vishwakarma)

Govt. Science College, Ambikapur
Dist.- Sarguja (C.G.)

GOVERNMENT SCIENCE COLLEGE AMBIKAPUR DIST. SARGUJA (C.G.)
TIME-TABLE
2019-20

Class	11 To 11.40	11.40 To 12.20	12.20 To 1.00	1.00 To 1.40	1.40 To 2.20	2.20 To 3.30	3.30 To 4.40	4.40
B.Sc.I	Chem. 18 IT 9	Physics 1 Botany 10	Zoology 18 Maths 16	FC Sec A 18 Sec B 10	Biotech 1 Microbio 9 Maths 2	M/T - Bot/Phy W/Th - ZOO./IT F/S Micro/ Biotech Practical	M/T Chem. W/T Evs.	अन्य गतिविधियाँ
B.Sc.II	Zoology 1 Maths 2	Biotech 2 Microbio 9	FC 1	Physics 1 Botany 2	IT 16 Chem. 10	W/Th - Bot./Phy. F/S - Zoology/IT M/T Micro/Biotech Practical	W/T Chem.	
B.Sc.III	Botany 10	Zoology 18 Maths 16	Biotech 2 Physics 10 Microbio 9	Chemistry 9 IT 16	FC 18	M/T - Zoology/IT F/S - Bot/ Phy. W/Th Micro/ Biotech Practical	F/S Chem.	

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2. डॉ. एनमेरी खलखो
3. डॉ. नीलाम कुमार
4. श्री सुशील कुमार कश्यप
5. सुश्री मधुलिका कुजूर

(Dr. K.L. Vishwakarma)

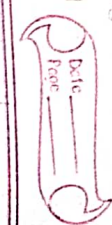
Principal

Govt. Science College, Ambikapur
Dist.- Sarguja(C.G.)

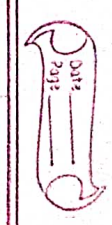
Month	Teaching plan
July	- Introduction to major groups of microorganism.
Paper - I	- Fields of Microbiology
Unit - I	- Historical Development
Unit - II	- contribution of pioneers -
	1) Louis Pasteur
	2) Edward Jenner
	3) Antony von Leewenhoeck
	4) Alexander Fleming
	- Beneficial and harmful microbes
	- Role of microbes in daily life
	- Methods of studying microorganisms
	- Sterilization techniques -
	i) Physical sterilization
	ii) Chemical sterilization
	- Pure culture isolation Techniques
	i) streaking
	ii) Waksman serial dilution and plating method
August	- Cultivation, maintenance and preservation of pure cultures
Paper I	
Unit - II	- Culture media and conditions for growths



Page No. _____
Date _____



B.Sc. Ist year



Teaching Plan		Microbiology	
Month	Teaching Technique	Month	Teaching Plan 2019-20
August Unit - II Paper - I	staining technique - i) simple staining ii) Gram staining iii) Negative staining iv) Acid fast staining	September Paper - II Unit - I	Carbohydrate: structure, classification & properties Protein: structure, classification and properties
	Classification of carbohydrate - i) Monosaccharide ii) Disaccharide iii) Polysaccharide	October Paper - II Unit - II	Structure, Classification and properties of lipids, saturated and unsaturated fatty acids, structure and properties of Nucleotides, structure and forms of DNA, Replication of DNA, Types, structure and function of RNA. structure, Nonion- and cationic detergents and properties of enzymes
	Classification of proteins, components of protein i) Amino acids ii) Peptides iii) Primary structure of proteins - i) Primary ii) Secondary iii) Tertiary iv) Quaternary	November - Paper - I Unit - III Unit - IV	Diversity of microbial world, Principle and classification of viruses and bacteria, structure, multiplication and economic importance of bacteria, structure and functional organization of bacteria, economic importance of bacteria. General characteristics and reproduction of fungi, structure and reproduction of fungi, common fungal disease of crops, structure, reproduction and economic aspect of lichens

Month

Teaching Plan

Month

Teaching Plan

December

Bacterial photosynthesis and chemosynthesis

Paper - II

Glycolysis, TCA cycle and oxidative phosphorylation, Anaerobic catabolism of glucose.

unit - IV

unit - V

Fat biosynthesis - alpha and beta oxidation

of fatty acid, decarboxylation, trans-amination and urea cycle, bacterial cell division

genomic application and growth phases, conditions for growth, plasma membrane

and transport system, types of transport.

September

Glycolysis, Krebs cycle, ETC, NADP, ATP NADH dehydrogenase.

January General characteristics and classification of Algae and Protozoa, General account unit - II and economic importance of Cyanobacteria

Protozoa - i) Amoeba

ii) Paramecium

iii) Euglena

iv) Plasmodium

February

Revision

November

Colony assay, spectrophotometry, spectrophluorimetry, turbidimetry, nephelometry, luminometry, pH meter, chromatography, centrifugation and ultracentrifugation, microscopy

December

DNA repair and restriction, stem and stem methylases, Animal tissue culture, decarboxylation, sterilization, disinfection

January

Sequencing of protein and nucleic acids electrophoresis techniques

February

Revision

Month	Teaching Plan		December		
July	History of molecular biology, concept of molecular biology, early history of genetic engineering, genetic engineering concepts			Characterization of solid and liquid waste, waste treatment, saccharification, gasification, composting, liquid waste treatment, useful byproducts - mushroom, fuel, fertilizer, biodegradation of industrial waste	11/1/24
August	Early observation on the mechanism of heredity, DNA as genetic material, basic mechanism of replication, Transcription, Translation, genetic code, regulation of gene expression, control of gene expression in microbes.		January	DNA repair and mutation, restriction modification systems, Properties and uses, recombination, Plasmid and phage vectors, restriction and ligation of vectors and passengers, DNA transfer: action of host cells, DNA sequencing	11/1/24
September	Mutation, spontaneous and induced mutation, conditional lethal resistance, Ames test			Protein separation and identification method	11/1/24
October	Riboplet nuclei, aerosol, assessment of air quality, Diphteria, Pneumonia, Meningitis, Influenza, chicken pox, measles, Mucositis, Physical and chemical characteristics and various types of soil types, Rhizosphere, phyllosphere, microbial interaction				11/1/24
November	biofertilizers				11/1/24
	Ecosystem, Potability of water, microbial assessment of water quality, Typhoid, dysentery, cholera, hepatitis, Food spoilage and food borne infections, biodegradation, xenobiotics, bioaccumulation, Biopesticides,				11/1/24

Date	B.Sc. I Year	B.Sc. II	B.Sc. III	Practical	Assign
1/7/19	Introduction of microbiology				Assign
2/7/19	Fields of microbiology				Assign
3/7/19	History of Microbiology				Assign
4/7/19	Louis Pasteur				Assign
5/7/19	Edward Jenner				Assign
6/7/19	Antony van Leeuwenhoek				Assign
7/7/19		Sunday			
8/7/19	Alexander Fleming				Assign
9/7/19	Stanford microbes				Assign
10/7/19	Harmful microbes	Plasma membrane structure			Assign
11/7/19	Role of microbes in daily life				Assign
12/7/19	Methods of studying microbes	Types of Plasma membrane	History of Molecular biology		Assign
13/7/19	sterilization Technique	Importance of Plasma membrane	Concept of Molecules do		Assign
14/7/19		Sunday			
15/7/19	Physical sterilization	Transport across membrane	Genetic engineering		Assign
16/7/19	Chemical sterilization	Active Transport	Gene transmission		Assign
17/7/19	True culture	Passive Transport	transformation		Assign
18/7/19	Isolation technique	osmotic	transduction		Assign
19/7/19	streaking	diffusion	conjugation		Assign
20/7/19	serial dilution	Active and Passive	Recombinant DNA technology		Assign
21/7/19		Sunday			
22/7/19	Plating method	Simple diffusion	History of R DNA Technology		Assign
23/7/19	dry heat	Facilitated diffusion	Gene cloning		Assign
24/7/19	wet heat	Energy transformation	Enzyme used in rDNA tech.		Assign
25/7/19	filtration	NADH dehydrogenase	History of genetic engineering		Assign
26/7/19	radiation	Quinone	Concept of genetic engineering		Assign
27/7/19	Antibiotic	Enzymatic dehydrogenase	Reduction enzyme		Assign
28/7/19		Sunday			
29/7/19	Alcohols	Cyclic oxidoreductase	Uses of rDNA Technology		Assign
30/7/19	Aldehyde	Cytochrome oxidase	Nomenclature of restriction enzyme		Assign
31/7/19	Sugar	and Amylase	vector		Assign

August 2019

Date

B.Sc. I

B.Sc. II

B.Sc. III

Practical

Sign

1/08/19	Staining technique	Physiology of bacterial growth	only observation on heredity			
2/08/19	simple staining	Growth phase	DNA as genetic material	Laboratory rules		Sign
3/08/19	Gram staining	Growth curve	Crieff's experiment	Glass wares		Sign
4/08/19	Negative staining	Spore	Avery experiment	Electronic Balance		Sign
5/08/19	Acid fast staining	Staining of endospore	Experiment of Hershey & Chase	Autoclave		Sign
6/08/19	Carbohydrate	Life cycle	Guidance from bacterial origin	Hot air oven		Sign
7/08/19	Monosaccharide	Importance	Evidence from RNA viruses	Laminar air flow		Sign
8/08/19		Adinasi				Sign
9/08/19		C.C.				Sign
10/08/19		Sunday				Sign
11/08/19		C.I.D.				Sign
12/08/19	Clonacetic acid	Germination (PSE)	Replication	Incubators		Sign
13/08/19	Polysaccharide	Germination (PST)	Steps of Replication	Inoculation		Sign
14/08/19		I N D E P E N D A N C E				Sign
15/08/19	Proteins	Bacterial cell division	Enzymes involved in replication	Culture media		Sign
16/08/19		C.C.				Sign
17/08/19		Sunday				Sign
18/08/19	Classification of proteins	Replication of bacterial DNA	Transcription	Determination of growth		Sign
19/08/19	Components of protein	Replication origin	Steps of transcription	Phase of E. coli by O.D		Sign
20/08/19	Structure	Steps of replication	Enzymes involved in transcription	Characterization of genetic		Sign
21/08/19	Primary structure	Enzymes involved in replication	Translation	Markers of bacterial strains		Sign
22/08/19	Secondary structure	Coordination of cell division	Steps of translation	Preparation of solid culture media		Sign
23/08/19		Tamastini				Sign
24/08/19		Sunday				Sign
25/08/19	Tertiary structure	Replication initiation	Enzyme involved in translation	Relationship between α and		Sign
26/08/19	Quaternary structure	Replication elongation	Genetic code	of α measurements		Sign
27/08/19	Amino acid	Replication termination	Properties of genetic code	Phage growth curve		Sign
28/08/19	Peptides	Partitioning of chromosome	Regulation of gene expression	Phage growth curve		Sign
29/08/19	Importance of protein	Antibiotics	Control of gene expression	Preparation of liquid		Sign
30/08/19	Properties of protein	Importance	Lat open	Culture media		Sign

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November 2019

Date

B.Sc I

B.Sc II

B.Sc III

Practical

Sign

1. 11/11/19	Activity of microbial world	Colorimetry	Ecology	Assay of Protease	CFU
2. 21/11/19	Classification of virus	Principle of colorimetry	Fresh water ecosystem	Assay of Peroxidase	CFU
3. 31/11/19	Structure of virus	Spectrophotometry	Rivers, lake, stream	Electrophoretic analysis of RNA	CFU
4. 11/12/19	Multiplication of virus	Principle of spectrophotometry	Salinity of water	Measurement of microbes	CFU
5. 21/12/19	Economic importance	Spectrophotometry	Microbial assessment of water	Carbide draughting of isolation	CFU
6. 31/12/19	Bacteria	Turbidimetry	Typical		
7. 11/1/20		C-10			
8. 21/1/20		31/1/20			
9. 31/1/20	Structure of bacteria	Principle of Nephelometry	Degradation of organic matter	Isolation of bacteria from soil	CFU
10. 11/1/20	Functional organization	Fluorimetry	Chlorophyll content	Media preparation	CFU
11. 21/1/20	Economic importance	pH meter	Hepatitis	Determination of antibiotic	CFU
12. 31/1/20	Fungi	Chromatography	Food spoilage	Maintenance of bacteria	CFU
13. 11/1/20		31/1/20			
14. 21/1/20	General characteristics of fungi	Absorption chromatography	Food borne infections	Exercise on colorimetry	CFU
15. 31/1/20	Classification of fungi	Partition and column	Biodegradation	Observation	CFU
16. 11/1/20	Structure of fungi	Gas and ion exchange	Role of biodegradation	Isolation of bacteria	CFU
17. 21/1/20	Reproduction of fungi	Gel filtration	Xenobiotics	Gram stain	CFU
18. 31/1/20	Fungal disease of plants	Affinity chromatography	Xenobiotic compounds	Exercise on spectrophotometry	CFU
19. 11/1/20	Lichen	MPLC, HPLC	Microbial degradation	Observation	CFU
20. 21/1/20		31/1/20			
21. 31/1/20	Viruses	Centrifugation and ultracentrifugation	Biopesticides	Exercise on pH meter	CFU
22. 11/1/20	Structure of lichen	Light and phase contrast microscopy	Role of microbes	Observation	CFU
23. 21/1/20	Reproduction of lichen	Fluorescence microscopy	Detoxification	Isolation of fungi from soil	CFU
24. 31/1/20	Economic importance	Dark field microscope	Industrial microbiology	Isolation of fungi from soil	CFU
25. 11/1/20	of lichen	Electron microscope	Production of alcohol	General test for cell	CFU
26. 21/1/20	Role of lichen	Digital image analysis	Production of antibiotics	Qualitative test for cell	CFU
27. 31/1/20			Production of organic acid		CFU

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16

December 2019

Date

Bisc I

Bisc II

Bisc III

Practical

Sign

12/12/19

13/12/19

14/12/19

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29/12/19

30/12/19

31/12/19

Anterol Photosynthesis

Oxygenic Photosynthesis

Anoxygenic Photosynthesis

Chemosynthesis

Glycolysis

TC9 cycle

Oxidative phosphorylation

Anaerobic catabolism

Alfa oxidation

Beta oxidation

Deamination

Urea cycle

Trans amination

Bacterial cell division

Genome Replication

Growth phases

Growth condition

CL

CL

CL

CL

CL

CL

CL

CL

CL

CL

CL

DNA repair

Types of DNA repair

Photoactivation

Excision repair

Mismatch repair

SOS repair

Restriction enzyme

Types of restriction enzyme

DNA methylase

DNA methylase

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

Animal tissue culture

DNA repair

Types of DNA repair

Characteristics of solid waste

Liquid waste

Water treatment

Biological treatment

Primary treatment

Secondary treatment

Tertiary treatment

Saccharification

Gasification

Composting

Sunday

Useful byproduct

Mushroom

Trametes

Fuel

Fertilizer

Biodegradation

Sunday

Sunday

Sunday

Sunday

Sunday

Sunday

Sunday

Sunday

Sunday

General test for Protein

Specific test for Protein

BOD

COD

Paper chromatography

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Isolation of bacteria

from soil

Isolation of bacteria

from air

Solid media

Liquid media preparation

Colorimeter

Spectrophotometer

Determination of

growth phase

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Date _____

B.Sc. I

B.Sc. II

Base III

Practical

Date _____
Page _____

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B.Sc. Part - I
'Mathematics' (2019-20)

<u>Month</u>	<u>Teaching Plan</u>
<u>September</u>	ε-δ definition of the limit of a function. Basic definition of limits, Continuous functions and classification of discontinuities, Differentiability, Successive differentiation, Leibnitz theorem, Maclaurin and Taylor series expansions.
<u>October</u>	Asymptotes, Curvature, Tests for Concavity and Convexity. Points of inflexion, Multiple points, Tracing of curves in Cartesian and polar Co-ordinates.
<u>November</u>	Integration of Transcendental functions, Reduction formulae, Definite integrals, Quadrature, Rectification, volumes and surfaces of solids of revolution.
<u>December</u>	Degree and order of a differential equations. Equations reducible to the linear form. Exact differential equations. First order higher degree equations solvable for x, y, p. Clairaut's form and Singular solutions.

Geometrical meaning of a differential equation, orthogonal trajectories, linear differential equations with constant coefficients, Homogeneous linear ordinary differential equations.

January
Linear differential equations of second order. Transformation of the equation by changing the dependent variable / the independent variable. Method of variation of parameters, ordinary simultaneous differential equations.

February
Scalars and vector product of three vectors. Product of two vectors, Reciprocal vectors, vector differentiation, Gradient, divergence and curl.

Month Teaching Plan

September
Series solution of differential equations - Power series method, Bessel and Legendre functions and their properties - Convergence, recurrence and generating functions, orthogonality function.

October
Sturm-Liouville problem, Orthogonality of eigen-functions. Reality of eigen values; Laplace transform - linearity of the Laplace transformation, existence theorem for Laplace transform, convolution theorem, solution of integral equations and systems of differential equations using the Laplace transform.

November
Partial differential equations of the first order. Lagrange's solution, some special types of equations which can be solved easily by methods other than the general method, Charpit's general method of solution.

December
Partial differential equations of second

and higher order classification of linear partial differential equations with constant coefficients, Monge's method.

January

Calculus of variations. Variational problems with fixed boundaries - Euler's equation for functionals containing first order derivative, functionals dependent on more than one independent variable, variational problems in parametric form.

February

Existence of Euler's equation, variational problems with moving boundaries, variational principle of least action. Analytical solution of equilibrium, stable and unstable equilibrium, virtual work, Catenary.

B.Sc. Part - III
'Mathematics' (2019-20)

March

Teaching Plan

September

Series of arbitrary terms, convergence, divergence and oscillation. Abel's and Dirichlet's tests, Multiplication of series, Double series, Partial derivatives and differentiability of real-valued functions of two variables, Schwarz and Young's theorems, Implicit function theorem, Fourier series, Fourier expansion of piece-wise monotonic functions.

October

Riemann integral, The fundamental theorem of integral calculus, Mean value theorem, Improper integrals and their convergence, Comparison tests, Abel's and Dirichlet's test, Fourier's integral, Continuity, differentiability and integrability of an integral of a function of a parameter.

November

Complex numbers as ordered pairs, Geometrical representation of complex numbers, Stereographic projection, Continuity and differentiability of complex functions, Analytic functions, Cauchy Riemann equations, Harmonic functions, Elementary functions.

Mapping by elementary functions. Möbius transformations. fixed points. best rational approximation and critical mapping.
Conformal mapping.

December
Definition and examples of metric spaces. Neighborhoods. limit points. Interior points. Open and closed sets. closure and Interior boundary points. Sub-space of a metric space. Cauchy sequence. Completeness. Cantor's intersection theorem. Contraction principle. Construction of real numbers as the completion of the incomplete metric space of rationals. Real no's as a C.O.F.

January
Baire Subsets. Baire Category theorem. Separable. Second countable and first countable space. Continuous functions, extension theorem, Uniform continuity, identity and homeomorphism, equivalent metrics, compactness. Sequential compactness. Totally bounded space, finite intersection property. Continuous functions and compact sets. Connectedness, components. Continuous functions and connectedness.

February
Recurrence relations and Recursive Algorithm. Boolean Algebras - Lattice and Algebraic structures. Type of lattice and Boolean algebra functions, expressions, switching circuit.

M.Sc. First Sem (Ist)
'Mathematics' (2019-20)

March

Teaching plan

Countable and uncountable sets, infinite sets and the axiom of choice, Cardinal numbers and its arithmetic, Schroeder-Bernstein theorem, Cantor's theorem and the continuum hypothesis, Zorn's lemma. Definition and examples of topological spaces. formal logic - statements, Symbolic representation and truth tables, Quantifiers, predicates and validity, Propositional logic.

October

Closed sets and closure, Baire subsets, Nbd, interior, exterior and boundary. Accumulation points and derived sets. Basis and Subbasis, Subspaces and relative topology. Kuratowski's closure operators and Nbdhood systems, Continuous functions and homeomorphism, first and second spaces, Lindelöf's theorems, Separable spaces, second countability. Semi-open & Mowoids - Homeomorphism of semigroups and monoids. Convergence relation and Quotient semigroups, Sub-semigroups -

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Compact, Direct products, Basic Homomorphism theorem, lattice, sub lattice, isomorphism, Boolean algebra, lattice, solidly algebra, subalgebra

Notations

isomorphism theorem, Heyting's algebra, lattice relation theorem, compact sets, isomorphism and countably compact, isomorphism of compactness, countable compactness and one point compactification, direct product compactification, direct product and Homomorphism, Tychonoff theorem, Stone and Nielsen, Boolean form and this equivalence, universal form, minimization of Boolean function, building theory, K-map Method, Boolean and language - phrase - structure grammar, building rules, language generated by a grammar, regular, context free, context sensitive, grammar and language, language, Kleene's theorem, relations, the universal finite relations, the results of Tychonoff theorem to finite relations.

M.Sc. IIIrd Sem.

'Mathematics'

Month

Teaching plan

Admission

September

Attraction of a rod, disc, spherical shells and sphere, Potential of a rod, disc, spherical shells, and sphere. Surface Integral of normal attraction, Laplace and poisson equation, work done by self attracting system, Distribution for a given potential. The Calculus of finite Differences, fundamental theorem of difference Calculus, To express a difference table, The operator E , properties of two operators E and A , factorial notation, Recurrence relation.

October

PDE - Examples, Transport Equation - Initial value problem, Laplace Equation Solution, Mean value formulas, Harmonic, Green function, Euler-Lagrange equations, Heat equation - fundamental solution, Mean value formula, properties of solutions, Energy methods, wave spherical equation, Non-homogeneous Equations. Interpolation with equal intervals: Different interpolation method. Interpolation with unequal intervals: divided differences Newton's formula, Relation between divided differ-

: Signature.....

and ordinary diff., Sheppard's rule, Lagrange interpolation formula, Hermite's formula.

November

Central difference Interpolation formulae - Gauss's, Sterling, Bessel's, Callace - Everett formula, uses of various, Interpolation formulae Numerical Diff. and Integration; Trapezoidal Simpson's 3rd rule, 3-8th rule, Weddle's rule Cote's method, Euler's Maclaurin's formula Integration formula. Nonlinear first order PDE Complete Integrals, envelopes, character Hamilton-Jacobi Equations, Calculus of variations, Hamilton's ODE, Legendre Transform, Hopf Lax formula, weak solutions, Uniqueness, Conservation laws, shocks, entropy condition, Lax-Oleinik formula, weak solutions, uniqueness, Riemann's problem, Long time Behavior.

October

September - 2019

PAGE NO.:
DATE: / /

PAGE NO.:
DATE: / /

PAGE NO.:
DATE: / /

No.	Date	B.Sc. Part-I	B.Sc. Part-II	B.Sc. Part-III	M.Sc. I st Sem	M.Sc. II nd Sem	M.Sc. III rd Sem	Signature
01	06.09.2019	Introduction	Introduction	Introduction	Introduction	Introduction		04
02	07.09.2019	Some Definition of limit.	Some Definition of limit.	Some Definition of set.				04
03	08.09.2019		SUNDAY					
04	09.09.2019		LOCAL HOLIDAY					
05	10.09.2019		Muharram					
06	11.09.2019	2-8 Definition	Power Series Method Series					04
07	12.09.2019	Some examples.	Series of Terms.	Arbitrary One - one onto map.				04
08	13.09.2019	Left Hand and Right Hand limits	Dirichlet's Proof.	Cardinality equivalent.				04
09	14.09.2019	Some examples related to limits.	Leibnitz Proof.	theorem 1-1 Corollary - disc.				04
10	15.09.2019		SUNDAY					
11	16.09.2019	Continuity, Cauchy Eno. of Power Definition						04
12	17.09.2019	Some examples. Fubini's Series						04

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S.No.	Date	B.Sc. Part - I	B.Sc. Part - II	M.Sc. I sem.	M.Sc. II sem.	Sign	MOO Sign	Remarks
13.	13-03-2015	Kind of Dirich- tivity.	Some examples of fuelvint.		Attraction of spherical shell.	Neha ✓		04
14.	19-07-2015	Some examples.	Abel's Test Proof.	Finite, Twite and Applications.		Neha ✓		04
15.	20-07-2015	Difficetibility.	Nexted theorem Proof.	Countable and uncountable set.		Neha ✓		04
16.	21-07-2015	Prequillie and Regullie Derivatives.	Partial Derivatives.	Cardinalities, Some theorem.		Neha ✓		04
17.	22-08-2015		SUNDAY			Neha ✓		04
18.	23-09-2015	Some examples on R.H.D & L.H.D.	Bold's function Some examples.	Attraction of sphere.		Neha ✓		04
19.	24-09-2015	Successive Differ- entiation.	Neumann's function.	Potential of rod, disc.		Neha ✓		04
20.	25-09-2015	Nth Derivation Calculation.	on Propagation Bold function.	Potential of spherical shell & sphere		Neha ✓		04
21.	26-09-2015	Leibnitz theorem. Build's inequality	Schrodler's Rule- stein theorem			Neha ✓		04
22.	27-09-2015	Some examples of Leibnitz. Recurrence Relations.		Carter's theorem, Continuum hypo		Neha ✓		04

Signature.....

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Date B.Sc. Part-I B.Sc. Part-II B.Sc. Part-III

23. 23-03-2015 MacLaurin's Some examples of B.S. Part-I

24. 29-03-2015 SUNDAY

25. 30-03-2015 Taylor's theorem Legendre's Ex. Proof. Examples with examples.

Haudeck Principle Zorn Lemma.

2106

M.Sc. I Sem. M.Sc. III Sem. Sign. HOD Sign. Remark:

2106

Total -

5.10.17

October - 2015

FACE NO. 1
PAGE 1

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DATE: / /

B.Sc. Part-I & II B.Sc. Part-II & M.B.Sc. HOD

01-04-2015 Legend's & Example Legend's example

Asymptote

02-04-2015

Legend's

part

03-04-2015 Asymptote

De-morgan's theorem

Truth extension theorem.

Yes ✓

04

04-04-2015 Short method of Asymptote.

Contributed Com. exterior point, planar lattice semigroup.

Yes ✓

04

05-04-2015 Curve - (as -) bidirectional

Complement lattice continuous function.

Yes ✓

04

06-04-2015

Sunday

07-04-2015

Pushing

Holiday

08-04-2015

10-10-2015 Some result on asymptote

Some theorem composition of map.

Yes ✓

04

11-10-2015 Curve - (as -) bidirectional

Bool's extension separation axioms.

Yes ✓

04

12-10-2015 Curve - (as -) bidirectional

Some example of connected space

Relative topology

Yes ✓

04

Signature

Signature

Sign: HOD-Sign: Remark

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Skript operator. Neka $\sqrt{8}$. 04

some examples Alia Ref 04
of Bill. Equation.

Backward &
forward diff. Nico ✓

C.I.T. - I

Weko

✓

04

C.T.T-I Nela
Jaya-II ✓

C.J.T-I
Neha
pages-III
✓ 0

1

C. IT. - I
Меня ✓

C.I.T-I	Neha
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Sl. No	Date	B.Sc. Part - I	B.Sc. Part - II	M.Sc. I sem.	M.Sc. II sem.	Sign.	HOD Sign.	Remark
23. 23-10-2013		Some examples Laplace Examples of Tracing.	24. 24-10-2013		Tilt of Alg - Some Examples. mofol.	Neha	V	04
25. 25-10-2013			26. 26-10-2013					
27. 27-10-2013			28. 28-10-2013					
29. 29-10-2013			30. 30-10-2013					
31. 31-10-2013			Some Examples of Bird's.					
			Some Examples of Bird's.					
			Some Examples of Bird's.					
			Some Examples of Bird's.					

DIVALI HOLIDAY

23/10/13

24/10/13 - Some doubt.

M.Sc. III sem.

Sign. HOD Sign. Remark

Difference Equa. Neha

V 04

Newton's Back-Neha

U 04

Some Theorems on topology.

Neha 04

20/11

November - 2019

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REMARKS
DATE: / /

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DATE: / /

S. No.	Date	ESc Part - I	B.Sc. Part - II	B.Sc. Part - III	M.Sc. I Sem.	M.Sc. III Sem.	Sign. HOD Sgn.	Remark
01	01.11.2019				[to Class]	[to Class]		
02	02.11.2019							
03	03.11.2019							
04	04.11.2019	Integration of	Laplace Inverse.		Seminar of	Seminar of		
05	05.11.2019	Some examples	first shifting theorem.		Seminar &	Seminar &		
06	06.11.2019	Test - Chapter-4	Some examples		Seminar 1	Seminar 1		
07	07.11.2019	Some examples	on Integration.		Seminar of	Seminar of		
08	08.11.2019	Some examples	related to Integration		Seminar of	Seminar of		
09	09.11.2019	Some examples			Seminar of	Seminar of		
10	10.11.2019							
11	11.11.2019	Some examples						
12	12.11.2019							

Holiday

SUNDAY

Integration

Some examples of Her solution.

SUNDAY

12.11.2019

Holiday

Signature

Sl. No.	Date	B.Sc. Part-I	B.Sc. Part-II	M.Sc. I Sem.	M.Sc. III Sem.	Sign. HOD Spn.	Remark
14	13.11.2013	Reduction for- Laplace Inverse rule	YAAV	8	Seminar on Num. Analysis.	Mela	04
15	16.11.2013	Reduction formula for sin & cos.	logical of cat.	Minimal Beclan	Minimal Beclan	Mela	04
16	15.11.2013	Reduction formula for tan & cot	Some examples on Beclan five.	Seminar on Research Method	Seminar on Research Method	Mela	04
17	16.11.2013	Some examples related to reduction	Partition, Maps & some theorems	Some theorems	Some theorems	Mela	04
18	17.11.2013	Scalar & vector triple product	SUNDAY	fundamental theorem.	fundamental theorem.	Mela	04
19	18.11.2013	Integration of Scalar Triple product of convolution type.		Tilt of partial diff. equation.	Tilt of partial diff. equation.	Mela	04
20	20.11.2013	Some examples on vector triple or Integral type product		Tilt of equation Research.	Tilt of equation Research.	Mela	04
21	21.11.2013	vector product of Stokes theorem	Stokes theorem	Tilt of Research Methodology.	Tilt of Research Methodology.	Mela	04
22	22.11.2013	Regional system	Reimann Integral.	Tilt of Ad. Directed.	Tilt of Ad. Directed.	Mela	04

S.N. Date B.Sc. Part-I B.Sc. Part-II B.Sc. Part-III M.Sc. Ist sem. M.Sc. IIIrd sem. Sign. HOD Sign Remark

28. 28.11.2015 Test of Tracing of Curves. Necessary & sufficient conditions for Riemann - Integrability. Some Result related to any John Lemma. Neta ✓ 04

24. 24.11.2015 SUNDAY

25. 25.11.2015 Some examples sol. of L.D.E with OR Reciprocal sys. constant coeff. Trajectory Equa- Neta ✓ 04

26. 26.11.2015 Some examples OR vector product. OR L.D.E. Examples on Central Neta ✓ 04

27. 27.11.2015 Differentiation of Derivation of P.D.E by elimination. Laplace equation Neta ✓ 04

28. 28.11.2015 Derivation of the product of a scalar and vector function. Some examples OR Riemann Integral. Neta ✓ 04

29. 29.11.2015 Chain rule with example. Particular cases of Riemann Integrability. Some theorems. Neta ✓ 04

30. 30.11.2015 Derivation of scalar product of d-vector. Fundamental of Calculus. Harmonic Triangles and exterior product. Neta ✓ 04

S.No	Date	B.Sc. Part-I	B.Sc. Part-II	B.Sc. Part-III	M.Sc. I st Sem.	M.Sc. III rd Sem.	Sgn.	HOD Sgn.	Remark
11.	11.12.2019	Some examples of it.	Some examples of S.F. - II			Euler-Lagrange Equation.	Neha		04
12.	12.12.2019	Sectorial deriv.		Impetus Tutored	Basis and sub-basis.		Neha		04
13.	13.12.2019	Some examples on Coudied.		Complex - numbers.	Continuous fun. and Homomom.		Neha		04
14.	14.12.2019			HOLIDAY					
15.	15.12.2019			SUNDAY					
16.	16.12.2019	Del Operator, Gradient.	Standard form-III.			Heat equation - fundamental sol.	Neha		04
17.	17.12.2019	Directional Derivative.	Some examples of Standard form-III.			Regularity of solutions.	Neha		04
18.	18.12.2019			HOLIDAY					
19.	19.12.2019	Divergence of vector.		Complex no. of ordered pairs.	First & second countable space.		Neha		04
20.	20.12.2019	Curl of a vector.		Geometric representation.	Lindeloff's theorem.		Neha		04
21.	21.12.2019	Some examples.		Some examples.	Some definitions.		Neha		04

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4. Mo. Date B.Sc. Part - I B.Sc. Part - II B.Sc. Part - III M.Sc. Ist Sem. M.Sc. IInd Sem. Sgn. Hod Sgn. Remark

22.08.2018 _____ SUNDAY

23.08.2018 Laplace's operator. Standard form - IV

24.08.2018

25.08.2018

26.08.2018

27.08.2018

X - MAS - HOLIDAY

28.08.2018 Some examples.

Some examples.

29.08.2018 _____ SUNDAY

30.08.2018 Some examples on Charpit's method.

divergence.

31.08.2018 Some examples on some examples on it.

Curve

Helix formula Neta ✓ 04

Helix formula Neta ✓ 04

Urysohn lemma. Neta ✓ 04

Tietze extension theorem. Neta ✓ 04

Compactness. Neta ✓ 04

76

Signature

Signature

January - 2020

PAGE NO. :
DATE : / /

NAME :
CLASS :
SECTION :

PAGE NO. :
DATE : / /

Sl. No. Date B.Sc. Part-I B.Sc. Part-II B.Sc.

Part-III Extra class Sign HOD Sign Remark

01 01 01 2020 Length of the P.D.E of 3rd and 4th order of Higher order. of complex no. (M.Sc. I sem) Neha 04

02 01 01 2020 Length of the Some examples Geometrical super. Kline's theorem. Neha 04
Curve in Cartesian of 2nd order PDE of complex No. (M.Sc. I sem)

03 01 01 2020 Some examples. Reduction to Projective of moduli Geometrical and Neha 04
Conical form. Laguerre (M.Sc.)

04 01 01 2020 Volume and Sur- Classification of Some examples. Picking lemma. Neha 04
face of solid. linear PDE of 1st.

05 05 01 2020 SUNDAY

06 01 01 2020 Volume of solid of Some examples. Continuity function Homogeneous eqn. Neha 04
Revolution. 1 Diff. solvability. triad.

07 01 01 2020 Some examples. Method of finding The necessary condi- Non-homogeneous Neha 04
C.F. tion for f(z). Equations.

08 01 01 2020 Some examples of working Rule for Conjugate. Functions. Alternate working Neha 04
finding C.F. rule for C.F.

09 01 01 2020 P.E of first order Some examples. Laplace Diff. Equations Harmonic Equations Neha 04
and first degree

10 10 01 2020 LOCAL HOLIDAY

S.No.	Date	B.Sc. Part - I	B.Sc. Part - II	B.Sc.	Part - III	Extra class.	Sign	Mod Sign	Remark
11.	11.01.2020	Ordinary Differential Equations.	Case of Imaginary Root.	Polar Curve	Form of Partial Differential Equations.	Partial Differential Equations.	Neha		04
12.	12.01.2020			SUNDAY					
13.	13.01.2020	Order of differential equation.	The particular Integral.	Mixe m	Romana's Method.	Some examples of P.T.	Neha		04
14.	14.01.2020	Solution and Constant of Integration.	Short Method.	Some	examples	Some Cases of P.T.	Neha		04
15.	15.01.2020	formation of Diff. Equation.	Some examples.	elementary fur. and mapping.	Magification $w = cz$.	Magification	Neha		04
16.	16.01.2020	Separation of variable.	General method.	Rela - Mag	tion and	Mobius Trans - formation.	Neha		04
17.	17.01.2020	Some examples.	Solution of linear Non-Homo. Diff. Eq.	Linear	Transfer -	Homogeneous function.	Neha		04
18.	18.01.2020	Homogeneous Diff. Equation	Method of C.F. of Non-Homo. P.D.E.	Bilinear	or Mobius Transformation fur. like Diff. Equa.	Changing a Homo. Mobius	Neha		04
19.	19.01.2020			SUNDAY					
20.	20.01.2020	Some examples.	Some examples.	Thur	Transfer -	P.D.E. Reducible to	Neha		04

Sl. No.	Date	B.Sc. Part - I	B.Sc. Part - II
21	21.01.2020	Non-homogeneous eqn. of the first degree.	Some examples.
22	22.01.2020	Linear Differential equations.	Some examples of Mergel's method.
23	23.01.2020	First order L.D.E.	Mergel's examples.
24	24.01.2020	Working rule of L.D.E.	Some examples of Mergel's.
25	25.01.2020	Equations reducible to linear form.	Some examples of Chayil's.
26	26.01.2020	SUNDAY	
27	27.01.2020	Change of variables.	Calculus of variations
28	28.01.2020	Exact Differential equations.	Examples of functional
29	29.01.2020	Some examples.	Basic Notations.
30	30.01.2020	O.E. of 1 st degree order function.	Variation of degree function.
31	31.01.2020	Equations solvable for p.	Proximity of curve.

Sl. No.	Date	B.Sc. Part - III	Extra class.	Sign.	Had Sign.	Remark
		The linear group.	Mergel's Method.	Neha		04
		Cross Ratio.	Predominance of Cross Ratio.	Neha		04
		Some examples of cross ratio.	Conformal Mapping.	Neha		04
		Sufficient condition.	Some examples of L.D.E.	Neha		04
		Necessary condition of Bessel's eqn.	Some examples of Bessel's eqn.	Neha		04
		of $W = f(z)$.				
		Some examples of conformal problem.		Neha		04
		Metric space.	Examples.	Neha		04
		Some examples.	Existence relation	Neha		04
		Open & closed sphere.	The notation of continuity.	Neha		04
		Some theorems.	Equation sol. for y.	Neha		04

Signature

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February-2020

PAGE NO.:
DATE: / /

PAGE NO.:
DATE: / /

PAGE NO.:
DATE: / /

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Date

B.Sc. Part - I

B.Sc. Part - II

B.Sc. Part - III

Extra class

Sign

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Remark

01. 01.02.2020 Some examples of 4th set. fory.

continuity of a functional

Open and closed balls in $\mathbb{R}^k$ for x .

equations solvable

Nela

04

02. 02.02.2020

SUNDAY

03. 03.02.2020 Bilinear equation and orthogonal trajectory.

linear functional, Theorem of a function.

Convexity in $\mathbb{R}^k$. Geometrical mean of Diff. equation.

Nela

04

04. 04.02.2020 Trajectories, orthogonal trajectory.

variation of the functional.

Some theorems. Diff. equation of family of O.Tra.

Nela

04

05. 05.02.2020 working rule of Polar Co-ordinates.

Extremals of functionals.

Closure of a set orthogonal set.

Nela

04

06. 06.02.2020 Some examples.

Euler's equation.

Perfect set, Introduction of P.D.E.

Nela

04

07. 07.02.2020 Linear Differential equation.

Some examples on Euler's equation.

Boundary Point Discussion on exterior points.

Nela

04

08. 08.02.2020 Auxiliary equations.

Thapsimutic problem.

Metric subspace. Topic of seminar

Nela

04

09. 09.02.2020

SUNDAY

10. 10.02.2020 Homogeneous linear Diff. equation.

functionals dependent on Higher order Derivatives.

Cauchy sequence. Introduction of Topology - II sem.

Nela

04

Signature

Sl. No. Date B.Sc. Part-I B.Sc. Part-II

B.Sc. Part-III M.Sc. II/IV Sign. Hodsign. Remark

11 11-02-2020 Auxiliary equation Some examples. Having Imaginary root. Nil 04

12-12-02-2020 Some examples on functional dependent on it. functional. Nil 04

13-13-02-2020 Linear Non-Homogeneous and equations. Some examples on functional. Nil 04

14-14-02-2020 The particular - Integral. Variational problem in Parametric form. Nil 04

15-15-02-2020 Some type of particular Integral. Some examples of parametric form. Nil 04

16-16-02-2020 SUNDAY -

17-17-02-2020 Homogeneous linear functional dependent equation. or are functional. Nil 04

18-18-02-2020 Linear differential equations of 4th order. Transcendental condition. Nil 04

19-19-02-2020 Relation to normal form. Some examples. Nil 04

20-20-02-2020 Some examples. orthogonality condition. Nil 04

Some theorem on Cauchy. binomial topics Distribution. Nil 04

Complete metric space. Introduction of Numerical ana. Nil 04

Cauchy's Theorem. Assignment Question of 11th sem. Nil 04

Completeness of R. Introduction of Ad. Discrete math. Nil 04

Contraction Mapping. Assignment Question of 11th sem. Nil 04

Real Number as Constructible. a complete or field. Nil 04

Some examples separated set. Nil 04

Least upper bound. Discontinuous. Nil 04

Complete ordered field. Some examples. Nil 04

Signature

Signature

DATE: / / B.Sc Part - I

B.Sc Part - II

M.Sc. II / IV

Sgn: HOD Sgn: Remark

21.11.2020 HOLIDAY

22.11.2020 Transformation of variational problem with a movable bar

23.11.2020 SUNDAY

24.11.2020 Some examples on one sided variation it.

25.11.2020 Method of variation of parameters for an extremum.

26.11.2020 Some examples. Embedding in an extremal field.

27.11.2020 Non-homogeneous linear diff eq of order

28.11.2020 Ordinary Differential equation: critical condition of function.

29.11.2020 Method of Duffin-Tinelli. Legendre condition.

The acmedon briefly. finite state machine. N/A

Metric space: Dense subsets. Euler's theorem. N/A

Basic Category Theorem. Net's & filter. N/A

Continuous function. Product space. N/A

Some Theorem. Some definition of P.O.E. N/A

Compactness - Pasquation map. N/A

Urysohn Theorem. Continuous function. N/A

and

Daily Diary

Seema Rajwade

"Chemistry"

2019-20

B.Sc. Ist year Chemistry 2019-20

Month	Teaching plan
September	Hybridization, shapes of molecule, influence of hybridization on bond properties, Electronic displacement, Inductive effect, resonance & mesomeric effect, hyperconjugation and their applications - dipole moment, Electrophiles & Nucleophiles, Nucleophilicity and basicity, Homolytic & Heterolytic cleavage, Generation of Carbocations, Carbanions, free radicals, Carbenes and Nitrenes, Introduction to types of organic rxns - Addition, Elimination & Substitution rxns.
October	Optical isomerism: optical activity; Specific rotation, Chirality, Enantiomers, Diastereoisomers, Meso comp., Relative & absolute configuration, Fischer, Newman & Sawhorse projection formulae & their interconversion, Erythrose and threose D/L d/l system of nomenclature, Cahn-Ingold-Prelog system of nomenclature, R/S Nomenclature, Geometric isomerism, cis-trans, syn anti and E/Z notation.
November	Bohr's theory, its limitation and atomic spectrum of hydrogen atom, General idea of de-broglie, Heisenberg uncertainty principle, Schrodinger wave

angular wave functions & probability distribution curve, quantum numbers, atomic orbital and shapes of s, p, d orbitals, Aufbau & Pauli exclusion principle, Hund's multiplicity rule, e^- configuration of the element.

Month

Chemistry (2019-20)

Teaching plan

periodic properties of the elements with reference to s and p-block. Trends in periodic table and applications in predicting & explaining chemical behaviour a) atomic & ionic radii b) ionization enthalpy c) electron gain enthalpy d) electronegativity, Pauling's Mulliken's Allred-Rotham's scales, e) effective nuclear charge, shielding or screening effect. Slater's rule Variation of effective nuclear charge in periodic table

September

characteristics, properties of d-block elements, first transition series, binary compounds and complex relative stability of their oxidation states, coordination number and geometry, chemistry of elements of second & third transition series, ionic radii, oxidation state, magnetic behaviour, spectral properties and stereochemistry.

December

periodic properties of the elements with reference to s and p-block. Trends in periodic table and applications in predicting & explaining chemical behaviour a) atomic & ionic radii b) ionization enthalpy c) electron gain enthalpy d) electronegativity, Pauling's Mulliken's Allred-Rotham's scales, e) effective nuclear charge, shielding or screening effect. Slater's rule Variation of effective nuclear charge in periodic table

October

Werner's coordination theory & its experimental verification EAN, Chelates, nomenclature of coordination comp. isomerism, in coordination comp. VBT of transition metal complexes, Oxidation & Reduction, analysis of redox cycle redox stability in water - first, Latimer and Pourbaix diag. principles involved in the extraction of the elements. Chemistry of lanthanoids - oxidation state, e^- structure, ionic radii, lanthanoid contraction

Rate of rxn. rate law, order and molecularity of reactions, rate determining step, zero, 1st, 2nd order rxns. Methods of determining order of reactions, chain rxns. Arrhenius rxn. Activation energy, elements of collision theory, transition state theory Homogenous & heterogeneous Catalysis, types of catalysts Enzyme catalyst rxns. Michaelis catalyst rxns. & applications

January

Rate of rxn. rate law, order and molecularity of reactions, rate determining step, zero, 1st, 2nd order rxns. Methods of determining order of reactions, chain rxns. Arrhenius rxn. Activation energy, elements of collision theory, transition state theory Homogenous & heterogeneous Catalysis, types of catalysts Enzyme catalyst rxns. Michaelis catalyst rxns. & applications

November

Glycolytic alcohols - methods of formation, chemical rxns of vicinal glycols, oxidative cleavage, Pinacol-pinacol rearrangement, Trihyaluric alc. - formation, chemical rxns Phenol - physical & acidic properties, acylation & carbonylation of phenols, mechanism of para rearrangement, Claisen rearrangement, Gattermann synthesis, Hauser-Hasch rxn, Fieser-Mannich & Feinman Mann rxns. Epoxide chemistry - oxidation of epoxide, rxns of R₂X & RLi with epoxide, Crown ethers.

February

Intermolecular forces, Magnitude of intermolecular forces, properties of liq., viscosity & surface tension, Colloids, coagulation, Hardy-Schulze law, flocculation value, protection gold number, Emulsion, micelles application of micelles, physical & chemisorptions.

Signature:

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Chemistry (2019-20)
Teaching plan

Class Contact and nature of bonding in metal Contact 80% - formation, str. & chemical rxn. Separation organellion comp & its reaction. Organosolvent - rxn of H ₂ O, H ₂ O ₂ , sulphuric acids, sulphuric acid and sulphuric acid. Self catalysis group alkylation of diethylmalonate ethyl acetate, chlorine condensation, ketone formation of diethylacetate.	September	VSER, Walsh dig. atm bond, Bent rule stepwise Overall stability constant, factors affecting the stability of metal complexes, chelate effect, Valency bond theory, Huckel MO theory & its application to ethene butadiene, benzene, first and last complex, kinetic application of VBT & CFT, kinetics of Di substitution, acid hydrolysis, Base hydrolysis, factors affecting acid hydrolysis, substitution rxn in sp: plasma complex trans effect, Redox rxn, outer sphere of inner sphere mechanism, Marcus-hush theory
January Characterization of electromagnetic radiation, region of the spectrum, transition rotational spectra of calcium nitrate molecules, energy level of rigid rotators, selection rule, determination of bond length, description of non rigid rotator isotopic effect. Fundamental vibrational & their symmetry, using diatomic molecules, energy level of simple harmonic oscillator, selection rule, pure vibrational spectrum, determination of force constant, diatomic vibrating spectra, Anharmonic Oscillator, quantum theory of Raman spectra, Application of Raman spectra solid & gas-like line pure rotational and vibrational Raman spectra.	October	Optical activity and chirality, enantiomers, diastereomers, study of dissymmetry of allenes, biphenyls, spiro compounds, R/S Nomenclature of biphenyls, allenes, fisher projection, interconversion of Sawhorse, Newman and fisher projection, Erythro & threo compounds, Cram's rule, Geometrical isomerism, E/Z nomenclature of alkenes, stereospecific & stereoselective rxns, Conformation of 1,2 disubstituted cyclohexane & their stereochemical features, Cis & trans decalins, Reaction intermediate - Carbocation, Carbanion, free radical, Carbene nitrenes and biradicals.
February Physical spectra of diatomic molecule, Franck-Condon principle, types of π transitions, applications of electronic transition spectra, detection of radiation with matter, thermal & photochemical process law of photochemistry, Jablonski dig, Fluorescence phosphorescence, Triplet-Triplet energy transfer, quantum yield, photooxidation.	November	Errors, sensitivity and selectivity of analytical methods, sampling, accuracy and precision, Standard deviation, Calibration curve and correlation coefficient, Linear regression, student's

Chemistry (2019-20)

North

Teaching plan

for ANOVA. Qualitative and quantitative treatment of adult exhalation, diluents, dilution, dilution, Curcumin, Curcuma, elliptic, synergistic exhalation, denaturation of Ni, Crown ether for ion association complexes.

September

Hantzsch-Widman system for monocyclic, fused and bicyclic heterocycles, aromatic heterocycles. Empirical resonance energy, delocalisation energy & duress resonance energy. Heteroaromatic reactivity and tautomerism in aromatic heterocycles. pyramidal inversion. 1,3-diene interaction, steric-electronic effect, aromatic and related effects, hydrogen bonding and intramolecular nucleophilic, electrophilic, interactions, cyclization reactions. Alkaloids, oxiranes, hydrazes, oxetanes, thiazanes, pyrroles, furanes, Thiophenes.

October

photochemical law, quantum yield, electronic excitation, flash photolysis, energy dissipation by radiative and non-radiative processes, Frank-Condon principle, photochemical processes, Jablonski diag. photoresonance, fluorescence quenching, Stern-Volmer equation, excimer formation, photochemical reaction, charge transfer spectra, CT excitation

November

Penicyclic rxn. Woodward-Hoffmann rule. FMO.
Electrocyclic rxn. cycloaddition rxn. sigmatropic rxn.
Cyclohepatic reaction. Ene reaction. 1,3-dipolar cycloaddn.
Cope and Claisen rearrangements.
Norrish Type II process. β -cleavage rxn. formation
of oxetane, intramolecular photoaddition, photo
cycloaddn rxn. Cis-trans isomerisation by the use
of photosensitizers. cyclisation rxn. photoaddn rxn

20.11.2019

December

various electronic transitions, Beer Lambert law
effect of solvent on electronic transition, UV
bands for Carbonyl Comp., mass spectral fragmentation
of organic Comp. Retrodiels alden rxn, Molecular
ion peak, Metastable peak, McLafferty rearrangement,
Nitrogen rule.
Basic principle of MB spectroscopy, application of
the technique to the studies of bonding & st
of Fe^{2+} & Fe^{3+} Comp., Sn^{2+} & Sn^{3+} comp.
detection of oxidation state and inequivalent
MB atoms.

SEPTEMBER

2019

PAGE NO. :
DATE : / /

PAGE NO. :
DATE : / /

Sub: PHYSICS F.Sc. IIIrd

F.Sc. IIInd

B.Sc. Ist

Practical

Signature of
Teacher: HDO

10/10/19 VSCN theory Planck's law
+ introduction of CT

05/10/19 Bose-Einstein Condensation Crystal field theory

05/10/19 SUNDAY

05/10/19 LOCAL HOLIDAY (KARNATAKA)

10/10/19 M U H R R A M

10/10/19 Discussion of overall formation constant Crystal field splitting in octahedral complex

10/10/19 Factors affecting the stability of metal complex Crystal field splitting in tetrahedral complex

10/10/19 Empirical observation of chloroacetic acid Crystal field stabilization energy

10/10/19 Heterocyclic aromaticity Crystal field splitting in square planar complex

10/10/19 SUNDAY

10/10/19 Solubility and Henry's law factors affecting crystal field parameters

10/10/19 Crystal field splitting in octahedral complex Applications of CFT - JT (Jahn-Teller)

10/10/19 Crystal field splitting in square planar complex Spectroscopic + overall formation constant

10/10/19 Crystal field splitting in octahedral complex Crystal field splitting in square planar complex

10/10/19 Crystal field splitting in octahedral complex Crystal field splitting in square planar complex

Introduction of transition element

Hybridization

Shapes of molecules

Influence of bond properties of hybridization

Inductive effect

Hyperconjugation + effect on bond moment

Resonance

Electrophile + nucleophile

Alomolytic + heterolytic cleavage

Electronic configuration of transition series

Crystal field splitting in octahedral complex

Crystal field splitting in square planar complex

Crystal field splitting in octahedral complex

Crystal field splitting in square planar complex

Crystal field splitting in octahedral complex

Date	M.Sc-Ist	M.Sc-III ^d	B.Sc. III ^d yr	B.Sc. II nd	B.E.II	Practicals	Sem. I HOD
08/09/19		Stereoelectronic effects.	Thermodynamic stability of metal ion complexes - nature of metal ion.	Azide radical of hyd & sd-series.	Cerations.		<u>[Signature]</u>
01/09/19		Intramolecular nucleophilic electrophilic interactions.		Oxidation state of hyd & sd-series.	Free radicals.		<u>[Signature]</u>
02/09/19	S U N D A Y						
03/09/19	Kinetics of VBT + CFT		Nature of ligand chelate effect. Template effect etc.	Magnetic behaviour of hyd / sd series.	Carbenes.		<u>[Signature]</u>
04/09/19	Acid + Base hydrolysis		Substitution reaction in Octahedral complex	Spectral properties of coordination comp.	Nitrenes imines		<u>[Signature]</u>
05/09/19	Substitution reaction in sq-planar complex.		Kinetic stability factors affecting substitution rxn in sq-planar complex.	Coordination comp. - introduction	Intro. of types of reaction.		<u>[Signature]</u>
06/09/19		Cyclization reactions		Lewis's theory explanation &	Addition reaction		<u>[Signature]</u>
07/09/19		Polymerisation of aziridine, oxazoline thiazine, Oxetane thietane.	Factors affecting the stability axis of sq-planar complex.	Experimental explanation.	Elimination rxn		<u>[Signature]</u>
08/09/19				Effective atomic number (EAN) rule	Substitution rxn		<u>[Signature]</u>
09/09/19	S U N D A Y						
20/09/19	Ene electron transfer rxn - intra/cyclic phase mechanism.		Traus effect.	Chelates - type & classification.	Introduction of stereochemistry.		<u>[Signature]</u>

October - 2019

PAGE NO.:
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PAGE NO.:
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Date	M.Sc. III sem	M.Sc. Term	B.Sc. IIIrd yr	B.Sc. IIrd yr	B.Sc. Ist yr	Practicals	Start of
4/10/19	photochemical laser		Types of magnetic behaviour	Nomenclature of coordination comp.	Optical isomerism		
20/10/19	Lambert Beer's law		Methods of determining magnetic susceptibility	Isomerism types	Optical activity & specific rotation		
03/10/19	Quantum yield.		Gouy method, Curie method.	Coordination isomerism	Chirality	M.Sc. Ist sem prac.	
04/10/19	Optical activity & chirality		L-S Coupling	VBT - explanation	Enantiomers & diastereomers	M.Sc. Ist sem. prac.	
05/10/19	Enantiomers & Diastereomers.		Ms. 4th eff.	Application & limitations of VBT	Threo & Erythro Compounds.		
06/10/19			SUN	DAY			
07/10/19			DUSSERA	HOLIDAY			
08/10/19							
09/10/19							
10/10/19			Study of dissymmetry of allenes, biphenyls, spirans.	Oxidation & Reduction rxn.	Relative Configuration		
11/10/19			R/S Nomenclature of biphenyls, allenes	Awayling of redox cycle for water.	R/S Nomenclature (absolute configuration)		
12/10/19			Fischer projection, Sawhorse & Newman interconversion.	Electromotive force.	Fischer, Newman & Sawhorse projection		
13/10/19			SUN	DAY			
14/10/19	Electronic excitation		Types of absorption spectra.	First diagram.	d/l nomenclature		
15/10/19	Photosynthesis		1 e ave				

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Signature:.....

October

2019

PAGE NO.:
DATE: / /

PAGE NO.:
DATE: / /

Sl. No.	M.Sc. IIIrd sem	M.Sc. IIIrd sem	B.Sc. IIIrd yr	B.Sc. IIIrd yr	Practicals	Sign of
11/10/19	Energy dissipation by rotational + vibrational motion.	unit test	Electronic transitions	Ultimate diagram	Geometrical Isomerism	☒
12/10/19		unit test	Selection rule for d-d transitions.	Pourbaix diag.	E/Z, Syn/anti & cis-trans.	☒
13/10/19		unit test	Spectroscopic ground state	principles involved in the extraction of elements.	Conformational analysis of ethane	☒
14/10/19		unit test	Spectrochemical series.	Chemistry of lanthanoids.	Butane	☒
20/10/19			SUN	DAY		
21/10/19	Unit test		Orgel diagram	Chemistry of separation of lanthanoids.	Stability criteria of cycloalkanes	☒
22/10/19	Unit test		Orgel diag for d^1 - d^9 configuration	Chemistry of actinoids.	Bayer's strain theory	☒
23/10/19	Frank condensation		Discussion of C spectrum of [Ti(H ₂ O) ₆] ³⁺ complex	Crystallization properties of spectral pure.	Limitations of Bayer's strain theory.	☒
24/10/19		Criamine rule & anti-criamine rule	Organometallic compound - Introduction	Chemistry of separation of Hf, Pu & Am from Uranium	Sacconi-Mohr's theory.	☒
25/10/19			DIW	ALI		
26/10/19						
27/10/19			SUN	DAY		
28/10/19						
29/10/19			DIW	ALI		
30/10/19	Photochemical processes		Normalisation & Classification of OMC	Simultaneous b/w Lanthanoids	Conformation of cyclohexanes.	☒
31/10/19	Photochemical reaction	Photoconductive reaction		Aluminols.	Stability of substituted cyclohexanes	☒

see

NOVEMBER

2019

 PAGE NO.:
 DATE: / /

Date	M.Sc. I Sem	M.Sc. II Sem	B.Sc. III	B.Sc. III	G.Sc. I & II	Practicals	Teachn sym	HOD
10/11/19	M.Sc. I Sem	M.Sc. II Sem	B.Sc. III	B.Sc. III	G.Sc. I & II	Practicals	Teachn sym	HOD
11/11/19	LOCAL HOLIDAY	LOCAL HOLIDAY	CHHATT	CHHATT				
12/11/19	SUNDAY	SUNDAY						
13/11/19	Introduction of Penicillin reaction	Sampling & Calibration curve	Hydrolytic alcohol	Hydrolytic alcohol	Atomic structure	M.Sc. I Sem		
14/11/19			Monomerization	Monomerization	Pauli exclusion rule	Prac.		
15/11/19		Leave						
16/11/19	Types of Penicillin reaction	Standard deviation	Chemical rxn of aliphatic alcohol	Chemical rxn of aliphatic alcohol	Pauli exclusion rule	M.Sc. I Sem		
17/11/19	Seminar + FMO	Errors & types of errors			Pauli exclusion rule	Prac.		
18/11/19	Seminar / Electrode sensitivity & stability of analytical method	Mass Spectroscopy				B.Sc. II Sem		
19/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
20/11/19	SUNDAY	SUNDAY						
21/11/19	Seminar + Electrode sensitivity & stability of analytical method	Mass Spectroscopy				B.Sc. III Sem		
22/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
23/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
24/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
25/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
26/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
27/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
28/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
29/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
30/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		
31/11/19	Seminar + Legendation in	Qualitative & quantitative analysis				B.Sc. III Sem		

Date	M.Sc. III	M.Sc. I & II	B.Sc. III	B.Sc. II & I	B.Sc. I & II	Practicals	Teacher's	HO
16/11/13	Photooxidation 'XII'	Synthetic extraction	Structure of conjugated - GNN/II/III			B.Sc. III yr	<u>True</u>	<u>✓</u>
17/11/13			SUNDAY					
18/11/13	Verapamil electronic transition	Miller Indices				De-Broglie eq and Heisenberg's uncertainty principle	<u>True</u>	<u>✓</u>
19/11/13	Beer Lambert's law	X-ray diffraction				Schrodinger wave equation	<u>True</u>	<u>✓</u>
20/11/13	Effect of solvent on electron transition	Bragg's law				Electronic configuration 4 periodicity	<u>True</u>	<u>✓</u>
21/11/13	UV bands for conjugated compound	Symmetry elements	MOI & VBT of conjugated comp			B.Sc. II and yr	<u>True</u>	<u>✓</u>
22/11/13	Mass spectroscopy	Symmetry operations	Mass spectroscopy (N) Introduction			B.Sc. II yr (B) batch & B.Sc. III yr	<u>True</u>	<u>✓</u>
23/11/13	Mass spectral fragmentation of organic molecules	Definition of a group	Fragmentation of organic molecules			B.Sc. I & II (B) batch & B.Sc. III yr	<u>True</u>	<u>✓</u>
24/11/13			SUNDAY					
25/11/13	Retro dieckmann reaction	Schönflies symbols				Atomic/Ionic radius tendency	<u>True</u>	<u>✓</u>
26/11/13	molecular ion peak	C _n , C _n h, C _n h point group				Ionisation energy	<u>True</u>	<u>✓</u>
27/11/13	metastable peak	M.S. lab - mixture analysis				Electron affinity & periodicity	<u>True</u>	<u>✓</u>
28/11/13	nitrophenyl rearrangement	M.S. lab - petroleum analysis	IR spectroscopy - introduction			B.Sc. II and yr	<u>True</u>	<u>✓</u>
29/11/13	Nitrogen rule	Characteristics of asymmetric	Application of IR and vibrations molecules			B.Sc. III yr & B.Sc. I & II (B) batch	<u>True</u>	<u>✓</u>
30/11/13	basic principle of MS spectroscopy	MS GUT	UV - introduction types of electronic transitions			B.Sc. III yr	<u>True</u>	<u>✓</u>

[illegible]

Date

M.Sc. III

M.Sc. I

B.Sc. III

12/12/13

p. benzocyclobutene from acetanilide

Character of reagent atom.

18/12/13

Citrus Glucosides

19/12/13

Isolation of p. Carotene from carrot

glomerular Isomerase E/Z syn/anti

Application of Lambert Beer's Law

20/12/13

Synthesis and 5th of benzofuran

R/S Notation of alkenes

Theory of NMR

21/12/13

Election

22/12/13

SUNDAY

23/12/13

Pyrimidines

Van-Brom reaction & Favorskii rearrangement

24/12/13

X-MAS

25/12/13

HOLIDAY

26/12/13

aziridine, oxirane, thietane

Gattermann reaction & Alkylation

Schubert and deshielding effect

29/12/13

SUNDAY

30/12/13

Benzoic acid

Stark rearrangement

31/12/13

Carbolic acid, oxalic acid

Reimer-Tiemann reaction

B.Sc. III

B.Sc. III

Practicals

Lect. 1

HOD

Half-form reaction

Type of semiconductor

Jayanti

RAY

RAY

B. Batch - Identify the two acid acid

B.Sc. III year Lab

Lect. 1

HOD

d.p. unsaturated carbonyl comp.

n-type & p-type semiconductor

B.Sc. III year Lab

Lect. 1

HOD

ANALYSIS

ANALYSIS

B⁺ radical - Acid & Basic radicals

B.Sc. III year Lab (preparation)

Lect. 1

HOD

d.p. unsaturated carbonyl comp. - form

Born-Haber cycle

Born-Haber cycle

Lect. 1

HOD

Crotonaldehyde, Acrylonitrile

Feynman's rule

Feynman's rule

Lect. 1

HOD

Signature

Signature

Signature

1000

1000

Date	MA-III	MA-III	6.30 III	6.30. Head 1	6.30. Head 1	7.30. Head 1	7.30. Head 1	10.00. Head 1	10.00. Head 1
01/01/2010	Light 1. Background	Concepts: basis		availability	direct movement				
02/01/2010	Background with			of the measurement					
03/01/2010	Background with	Input devices		Measurement of	solubility product				
04/01/2010	Background with	Input devices		Measurement of					
05/01/2010	Background with	Input devices		Measurement of					
06/01/2010	Background with	Input devices		Measurement of					
07/01/2010	Background with	Input devices		Measurement of					
08/01/2010	Background with	Input devices		Measurement of					
09/01/2010	Background with	Input devices		Measurement of					
10/01/2010	Background with	Input devices		Measurement of					
11/01/2010	Background with	Input devices		Measurement of					
12/01/2010	Background with	Input devices		Measurement of					
13/01/2010	Background with	Input devices		Measurement of					
14/01/2010	Background with	Input devices		Measurement of					
15/01/2010	Background with	Input devices		Measurement of					
16/01/2010	Background with	Input devices		Measurement of					
17/01/2010	Background with	Input devices		Measurement of					
18/01/2010	Background with	Input devices		Measurement of					
19/01/2010	Background with	Input devices		Measurement of					
20/01/2010	Background with	Input devices		Measurement of					
21/01/2010	Background with	Input devices		Measurement of					
22/01/2010	Background with	Input devices		Measurement of					
23/01/2010	Background with	Input devices		Measurement of					
24/01/2010	Background with	Input devices		Measurement of					
25/01/2010	Background with	Input devices		Measurement of					
26/01/2010	Background with	Input devices		Measurement of					
27/01/2010	Background with	Input devices		Measurement of					
28/01/2010	Background with	Input devices		Measurement of					
29/01/2010	Background with	Input devices		Measurement of					
30/01/2010	Background with	Input devices		Measurement of					
31/01/2010	Background with	Input devices		Measurement of					

Sl. No.	Topic	Branch	Year	Grade	Signature
1	Energy levels of rigid rotors.	B.Sc. III	III yr	1st	
2	Selection Rule.	B.Sc. III	III yr	1st	
3	Determination of Bond length.	B.Sc. III	III yr	1st	
4	Non-rigid rotors	B.Sc. III	III yr	1st	
5	Isotopic effect	B.Sc. III	III yr	1st	
6	fundamental vibrations	B.Sc. III	III yr	1st	
7	Energy level of simple harmonic oscillator	B.Sc. III	III yr	1st	
8	determination of force constant	B.Sc. III	III yr	1st	
9	SOUND	B.Sc. III	III yr	1st	
10	Anharmonic oscillator	B.Sc. III	III yr	1st	
11	quantum theory of Raman spectra	B.Sc. III	III yr	1st	
12	Vibrant	B.Sc. III	III yr	1st	
13	States and Lines	B.Sc. III	III yr	1st	
14	Pure rotational and vibrational spectra	B.Sc. III	III yr	1st	
15	Joule-Thomson expansion & its inversion temperature	B.Sc. III	III yr	1st	
16	calculation of ΔU & ΔH	B.Sc. III	III yr	1st	
17	Hydrogenation of ΔU & ΔH	B.Sc. III	III yr	1st	
18	adiabatic condition	B.Sc. III	III yr	1st	
19	Hess's Law	B.Sc. III	III yr	1st	
20	Enthalpy of Combustion	B.Sc. III	III yr	1st	
21	calculation of Bond enthalpy	B.Sc. III	III yr	1st	
22	Kirchoff's equation	B.Sc. III	III yr	1st	
23	Third Law of Thermodynamics	B.Sc. III	III yr	1st	
24	Pancrhami	B.Sc. III	III yr	1st	
25	Carnot cycle	B.Sc. III	III yr	1st	
26	Carnot theorem & efficiency	B.Sc. III	III yr	1st	
27	Coagulation and Hardy Schulting law.	B.Sc. III	III yr	1st	
28	Colloids	B.Sc. III	III yr	1st	
29	Surface tension	B.Sc. III	III yr	1st	
30	Viscosity	B.Sc. III	III yr	1st	
31	Intermolecular forces	B.Sc. III	III yr	1st	
32	properties of liquids	B.Sc. III	III yr	1st	
33	Sign of principal	B.Sc. III	III yr	1st	

Signature.....

Signature.....

Sl. No.	Name	Roll No.	Section	Subject	Topic	Mark	Grade
1	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Quantum mechanics	quantum mechanics postulates	100	100
2	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	SUN DAY	SUN DAY	100	100
3	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Schrodinger wave equation	Schrodinger wave equation	100	100
4	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Particle in a one dimensional box	Particle in a one dimensional box	100	100
5	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Schrodinger wave equation for H-atom	Schrodinger wave equation for H-atom	100	100
6	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Quantum number	Quantum number	100	100
7	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Characteristics of electromagnetic radiation	Characteristics of electromagnetic radiation	100	100
8	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Regions of the spectrum	Regions of the spectrum	100	100
9	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	SUN DAY	SUN DAY	100	100
10	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Orbitals of sulphur	Orbitals of sulphur	100	100
11	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	burning plastics and dioxins	burning plastics and dioxins	100	100
12	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Green house effect	Green house effect	100	100
13	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Global warming	Global warming	100	100
14	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Water pollution	Water pollution	100	100
15	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Crystal diagram	Crystal diagram	100	100
16	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	determining the ground state term - Hund's rule	determining the ground state term - Hund's rule	100	100
17	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Transition spectra of diatomic molecule	Transition spectra of diatomic molecule	100	100
18	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Energy level of rigid rotors	Energy level of rigid rotors	100	100
19	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Signature	Signature	100	100
20	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Entropy	Entropy	100	100
21	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Maxwell Boltzmann distribution	Maxwell Boltzmann distribution	100	100
22	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Mixing of entropy	Mixing of entropy	100	100
23	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Gold numbers	Gold numbers	100	100
24	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Emulsion	Emulsion	100	100
25	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Micelles	Micelles	100	100
26	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Application of physical and chemical phenomena	Application of physical and chemical phenomena	100	100
27	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Effect of dilution on conductance	Effect of dilution on conductance	100	100
28	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Kohlrausch's law	Kohlrausch's law	100	100
29	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Langmuir Equation	Langmuir Equation	100	100
30	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Applications of Kohlrausch's law	Applications of Kohlrausch's law	100	100
31	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Solubility of sparingly soluble electrolytes	Solubility of sparingly soluble electrolytes	100	100
32	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Hard product of water	Hard product of water	100	100
33	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Comprehensive thermodynamic	Comprehensive thermodynamic	100	100
34	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Oswald dilutions	Oswald dilutions	100	100
35	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Law of mass action	Law of mass action	100	100
36	M. S. W. son	M. S. W. son	B. Sc. IIIrd sem	Signature	Signature	100	100

February 2020

Date	M.Sc. III Sem	M.Sc. III Sem	B.Sc. III	B.Sc. III	Practical	Lab
13/02/2020	M.Sc. III Sem Water quality parameters.	M.Sc. III Sem d^1, d^2, d^3 and d^4 orgel diagram	B.Sc. III determination of bond strength.	B.Sc. III Archibute equation		✓
14/02/2020			SUNDAY			
11/02/2020	Mechanism of ferromagnetic substance	Mechanism of ferromagnetic substance				✓
13/02/2020	Mechanism of autocatalysis	Mechanism of autocatalysis				✓
13/02/2020	Effect of temp. on magnetic brown	Change transfer spectra				✓
29/02/2020	Substance in magnetic field	Chelates and their stereochemical information	Reaction of non-rigid rotors.			✓
11/02/2020			HOLIDAY			
24/02/2020	Curie and Curie Weiss law	Spin crossover.	Transitioned vibration and their symmetry	Transport number	Types of catalyst	✓
23/02/2020			SUNDAY			
24/02/2020	Ruby and phosphores	Magnetic exchange coupling		Electromotive number	Enzyme catalyzed reactions	✓
23/02/2020	Chemiluminescence	Absolute configuration		Electrolytic cell.	Michaelis-Menten eq.	✓
26/02/2020	Trall and essential strength metals.	Metal carbonyls structure.		Conduction and resistivity.	Collision theory	✓
24/02/2020	Na and K pump	Boranes	Every level of simple harmonic oscillator	Debye equation		✓
23/02/2020	Cell membrane & intracellular	Carboranes	Determination of force constant	Relaxation effect		✓
23/02/2020	Ca in biological importance	Metallaboranes	Stochastic oscillator	Function equation		✓

Note → B.Sc. Courses completed.

Signature:

March 2020

Page No. 1
Date 1 / 1

Page No. 1
Date 1 / 1

Date M.Sc. IVth Sem

M.Sc. IVth Sem

Theoretical

Adcl. Sign

HOD Sign

03/03/20

Introduction, syllabus
discussion of inorganic
organic and physical
chemistry.

Prabha
03/03/20

04/03/20

Introduction, syllabus
discussion, Bioinorganic
chemistry
Oxygen carrier protein
Haemoglobin, metallo-
protein,

Theory (12:00-1:30)
M.Sc. IV

Prabha
04/03/20

05/03/20

Crystal Defects,
Stoichiometric defects and
non stoichiometric
defects, Shottky and
Frenkel defect and
metal diffusion defect
(MDD)

M.Sc. IV
Description

Prabha
05/03/20

06/03/20

Bioinorganic chemistry
Haemoglobin, Haemoglobin
carboxypeptide.

M.Sc. IV
Description

Prabha
06/03/20

07/03/20

Metalloenzyme.
Haemoglobin
Organic Rearrangement
Wittig Rearrangement
Bayer Villiger Rearrangement.

M.Sc. IV
Description

Prabha
07/03/20

08/03/20

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Signature

Signature

March 2020

Page No.
 DATE: / /

Date M.Sc. IV Sem

09/03/20

10/03/20

11/03/20

12/03/20

Pollution - carbon monoxide, Acid rain

Bio inorganic chemistry

Practical

M.Sc. II

Practical

1

M.Sc. IV

Practical

Practical Sign

HOD Sign

Page No.
 DATE: / /

Signature