Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Neerja Parmar / Dr Renu
Class with sem :	M.A. Ist year (I sem)
Subject / Paper :-	Economics / Microeconomics-I.

Week	Topics
25 Jul to 29 Jul	Demand analysis, elasticity of demand.
31 Jul to 5 Aug	Cardinal and ordinal approach to demand, Derivation of Marshallian and Compensated demand Curve.
7 Aug to 12 Aug	income and substitution (Hicks and Slutsky approach), Normal vs. Inferior goods,
14 Aug to 19 Aug	Consumer Surplus: Hicks and Marshall approach., Theory of production function with one Variable input.
21 Aug to 26 Aug	Laws of returns to variable proportions: expansion path, returns to scale
28 Aug to 2 Sep	Rate of technical substitution; cost Curve
4 Sep to 9 Sep	derivation of short and long run cost curves Economies of scale, learning Curve Analysis.
11 Sep to 16 Sep	Price and output determination in Perfect Competition.

18 Sep to 23 Sep	Monopoly features, measurement of monopoly power
25 Sep to 30 Sep	Price determination and discrimination
3 Oct to 7 Oct	monopolistic Competition: characteristics, a firm short run equilibrium
9 Oct to 14 Oct	a firms long run equilibrium with differentiated products and selling costs
16 Oct to 21 Oct	Group equilibrium, issue of excess Capacity.
23 Oct to 28 Oct	General equilibrium: Concept, Stability, Existence and Uniqueness of Equilibrium
30 Oct to 4 Nov	Static and Dynamic Equilibrium, Partial and General equilibrium
6 Nov to 8 Nov	Walrasian approach to General Equilibrium, House Exam
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Money in General Equilibrium.

Regards

Neeja Parmar

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Aastha Vats / Dr Renu
Class with sem :	M.A. I, Sem - 1
Subject / Paper :-	Macroeconomics I

Week	Topics
25 Jul to 29 Jul	Introduction to Macroeconomics, Nature and Scope of Macroeconomics.
31 Jul to 5 Aug	Circular Flow of National Income - Two, Three and Four Sectors Model.
7 Aug to 12 Aug	National Income Accounting using Income, Expenditure and Value-Added Method.
14 Aug to 19 Aug	Significance of National Income Estimates, Limitation of National Income Estimates.
21 Aug to 26 Aug	Classical and Keynesian System of Macroeconomics : Introduction.
28 Aug to 2 Sep	Classical Macroeconomics : Equilibrium Output and Employment.
4 Sep to 9 Sep	Money, Price and Interest, Wage Price Flexibility and Full Employment Equilibrium
11 Sep to 16 Sep	Introduction To Keynesian Macroeconomics System.

18 Sep to 23 Sep	Keynesian System :- The Role of Aggregate Demand, Money, Interest and Income.
25 Sep to 30 Sep	Investment Function :→ Types of Investment, MEC, Investment Theories
3 Oct to 7 Oct	Investment Theories :- Accelerator Theory, Flexible Accelerator Theory.
9 Oct to 14 Oct	Concept and Functions of Money, Quantity Theory of Money, Keynes Liquidity
16 Oct to 21 Oct	Keynesian Approach : Tobin (Portfolio Balance Approach) & Baumol (Inventory theoretic's)
23 Oct to 28 Oct	Friedman (Restatement of Qty theory of Money) & Patinkin's Real Balance Effect.
30 Oct to 4 Nov	Measures of Money Supply and Determinants of Money Supply, Central Bank Approach.
6 Nov to 8 Nov	Monetary Policy & Fiscal Policy, Monetarism Vs Keynesian, House Exam
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of Whole Syllabus.

Seen

Asstt Prof

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Renu
Class with sem :	M.A.I , Sem I
Subject / Paper :-	Economic Growth & Development.

Week	Topics
25 Jul to 29 Jul	Measuring Development : Income Measures, Basic Needs Approach , PQLI.
31 Jul to 5 Aug	Concepts of Measurement of Economic Development & Growth.
7 Aug to 12 Aug	Human Development Index and Capabilities Approach.
14 Aug to 19 Aug	Poverty , Inequality and Development : Measures and Impact.
21 Aug to 26 Aug	Millenium Development Goals & Sustainable Development Goals.
28 Aug to 2 Sep	Goulet's Core Values of Development, Sustainable Development.
4 Sep to 9 Sep	Classical Theories of Growth & Development, Contribution of Adam Smith;
11 Sep to 16 Sep	Karl Marx's Contribution, Rostow's Theory of Stages of Economic Growth.

18 Sep to 23 Sep	Ricardo's Contribution, Schumpeter's contribution, Introduction to Growth Models
25 Sep to 30 Sep	Harrod and Domar: Instability of Equilibrium, Neo Classical Growth Models.
3 Oct to 7 Oct	Solow and Meade Growth Models, Growth Models of Joan Robinson.
9 Oct to 14 Oct	Kaldor's Contribution of Growth, Romers Models of Endogenous Growth.
16 Oct to 21 Oct	Human Capital Formation in India, Accumulation of Human Capital, Endogenous Growth Theory.
23 Oct to 28 Oct	Role of Learning, education and Research, Development of Models: Balanced Growth
30 Oct to 4 Nov	Unbalanced Growth Model of Development, Low level Equilibrium Trap.
6 Nov to 8 Nov	Models of Lewis, Fei-Ranis House Exams
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of whole syllabus.

Lewis.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Renu
Class with sem :	M.A. I year, I sem
Subject / Paper :-	Statistical Methods

Week	Topics
25 Jul to 29 Jul	Definition of Statistics, Importance of statistics, Role of statistics in Decision-making.
31 Jul to 5 Aug	Presentation of Data, Central tendency : Mean, Median, and Mode.
7 Aug to 12 Aug	Census Versus Sample Enumeration, Probability and non-probability sampling methods.
14 Aug to 19 Aug	Sampling methods :- Simple random, Stratified random, Sampling error.
21 Aug to 26 Aug	Range, Quartile Deviation, Mean Deviation, Standard Deviation, Variance.
28 Aug to 2 Sep	Variance and Coefficient of Variation, Probability : Concept and Definitions.
4 Sep to 9 Sep	Importance of Probability, Law of addition and multiplication, Probability Distribution.
11 Sep to 16 Sep	Binomial, Poisson and normal Distributions (Properties and Numerical problems)

18 Sep to 23 Sep	Index numbers: Laspeyer's and Paasche's and Fisher's Index numbers, Base shifting.
25 Sep to 30 Sep	Splicing, and deflating of index numbers, Cost of living index numbers, and Consumer Price Index.
3 Oct to 7 Oct	Time series: Types, Components of time series and their decomposition.
9 Oct to 14 Oct	Methods of measuring trend methods of measuring seasonal Variations.
16 Oct to 21 Oct	Correlation analysis, Meaning of Correlation, Types of Correlation Karl Pearson's Coefficient of Correlation.
23 Oct to 28 Oct	Spearman's rank Correlation, Regression analysis - meaning
30 Oct to 4 Nov	Two lines of regression analysis, Method of least square Method.
6 Nov to 8 Nov	House examinations, Correlation and regression, Karl pearsons coefficient of Correlation.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Methods of Regression, Properties of regression Coefficient, Spearman's rank correlation.

Revision.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Deepa Saini
Class with sem :	M.A Economics 1st Year 1st Sem (Th & PR)
Subject / Paper :-	IT Skills in Economics

Week	Topics
25 Jul to 29 Jul	Introduction to Computer, Central Processing Unit, Memory and Storage devices
31 Jul to 5 Aug	Input / output devices :- Monitor, Printer, Scanner, Keyboard, Speaker, Mouse
7 Aug to 12 Aug	Software :- Classification of Software Evolution of operating system, Types of operating system
14 Aug to 19 Aug	Computer Virus, Microsoft Word :- Basic of Microsoft Word, Editing a document, Saving a Document
21 Aug to 26 Aug	Creating Table, Mail Merge, Headers and Footer, spelling and Grammar, Checker
28 Aug to 2 Sep	Macro, Insert Graphs and Pictures in the document
4 Sep to 9 Sep	Microsoft Excel :- Introduction, Component of the MS- Excel, Window entering data in Worksheet, Editing and Formatting
11 Sep to 16 Sep	Formatting and styling of the data, Print Preview

18 Sep to 23 Sep	Sorting and Filtering data, Conditional formatting, Use of MS-Excel in Computing descriptive statistics
25 Sep to 30 Sep	Constructing graphs and charts, Tables
3 Oct to 7 Oct	Functions and Formulas
9 Oct to 14 Oct	Microsoft Power Point :- Creating a New Presentations, Saving
16 Oct to 21 Oct	Printing Presentations, Different Kinds of Power Point
23 Oct to 28 Oct	Power Point Views, Insert notes to to the Presentation
30 Oct to 4 Nov	Animation and Show
6 Nov to 8 Nov	Insert Images and Files
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision Unit I, Unit II, Unit III Unit IV

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mrs. Monisha
Class with sem :	M.A. Previous (1st Sem) English
Subject / Paper :-	English Poetry

Week	Topics
25 Jul to 29 Jul	Introduction to the syllabus and the examination scheme. Introduction to Poetry
31 Jul to 5 Aug	Explaining Socio-Political conditions of the relevant period. Literary Terms used in the Poem.
7 Aug to 12 Aug	Introduction to the writer, 'Geoffrey Chaucer' Detailed study of 'the prologue' to the Canterbury Tales.
14 Aug to 19 Aug	Discussion on questions/answers of the Prologue, detailed character details of the Prologue.
21 Aug to 26 Aug	Test of unit-I, Introduction to the unit-II
28 Aug to 2 Sep	Detailed discussion on William Shakespeare and textual reading of his sonnets prescribed in the syllabus
4 Sep to 9 Sep	Textual reading continue of sonnets and discussion on questions/answers.
11 Sep to 16 Sep	Doubt removal classes and class test of unit-II

18 Sep to 23 Sep	Introduction to unit-III, writer (author) John Donne and relevant period.
25 Sep to 30 Sep	Textual reading of the poems 'Canonization' and 'The Flea'
3 Oct to 7 Oct	Textual reading continue of the poems "A Valediction forbidding Mourning" "The Extasie".
9 Oct to 14 Oct	Discussion on questions/answers of the poems of unit-3
16 Oct to 21 Oct	Class Test of unit-3 and Introduction to the unit-4
23 Oct to 28 Oct	Detailed reading of the author John Milton and his relevant period.
30 Oct to 4 Nov	Textual reading of the poem 'Paradise Lost' (Book I)
6 Nov to 8 Nov	Discussion on questions/answers of the poem 'paradise lost' and class Test of unit-IV
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision classes and Doubt removal classes.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Deepu Saini
Class with sem :	M.A English 1st Year 1st Sem (Th)
Subject / Paper :-	IT Skills

Week	Topics
25 Jul to 29 Jul	Introduction, objectives, central Processing Unit (CPU) Memory and Storage devices, Memory Hierarchy,
31 Jul to 5 Aug	Memory Types, Input / output devices, Monitors, Printers, Scanners, Keyboard
7 Aug to 12 Aug	Speaker, Mouse, Software: Classification of Software: Classification of software, Evolution of operating System.
14 Aug to 19 Aug	Types of operating System, other Criteria for Classification of Software Computer Virus
21 Aug to 26 Aug	Data, Information, Data Vs Information Information Vs Knowledge, Internet.
28 Aug to 2 Sep	Internet Introduction, Evolution of Internet, Advantages of Internet, Internet Components.
4 Sep to 9 Sep	Internet Addresses, Connection to Internet Concept of web browsers. What is Web Browser
11 Sep to 16 Sep	Microsoft Internet Explorer, Mozilla Firefox, search Engine, Data Communication

18 Sep to 23 Sep	Types of Network, LAN Topologies
25 Sep to 30 Sep	Introduction to HTML, Basics, Working with HTML, text, Using list in web document, Using Graphics and Links.
3 Oct to 7 Oct	Tables, Frames and Forms, An overview of Multimedia, Component of Multimedia Application Areas for Multimedia
9 Oct to 14 Oct	Hardware for Multimedia, Computer S/W for Multimedia.
16 Oct to 21 Oct	Microsoft Point:- Creating a New Presentations, Saving and Printing Presentation Different Kinds of Power Point Views,
23 Oct to 28 Oct	Insert notes to the Presentation, Animation and show, Insert Images and files.
30 Oct to 4 Nov	Microsoft Excel:- Introduction, Components of the MS- Excel, Window, Entering data in Worksheet, Editing and formatting styling of the data, Point Preview.
6 Nov to 8 Nov	Sorting and Filtering data, Conditional formatting, Microsoft Word:- Basics of Microsoft Word, Editing a document Saving a document
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Creating Table, Mail Merge, Header and Footer, Spelling and Grammar Checker Macro, Insert Graphs and Pictures in the document.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Sweety
Class with sem :	M.A. English Ist yr. (Ist sem)
Subject / Paper :-	Open Elective Course (Health and Disease Control) 19MBOEC-100

Week	Topics
25 Jul to 29 Jul	→ Introduction → Health, Definition of Health
31 Jul to 5 Aug	→ Public Health, Environmental Health, → Occupational Health, Mental Health. → Factors Determining Health.
7 Aug to 12 Aug	→ Income & Social status regarding Health → Education & Employment, Social Environment, Physical Environment.
14 Aug to 19 Aug	→ Child Development, Health services → Gender & Culture → Role of Exercise & Sleep on Health.
21 Aug to 26 Aug	→ Test of Health, Public Health. → Introduction to disease, Different types of Disease, Communicable & Non-communicable Diseases
28 Aug to 2 Sep	→ Infectious Diseases, Deficiency Disease, Hereditary disease, Genetic & Non-Genetic Disease. General Diseases: Influenza.
4 Sep to 9 Sep	→ Chikungunya, Hepatitis, HIV/AIDS, Tuberculosis, Malaria, Corona Virus, Cancer, Diabetes.
11 Sep to 16 Sep	→ Chronic Obstructive Pulmonary disease, Obesity, Malnutrition → Revision.

18 Sep to 23 Sep	Blood, Blood Groups of different types, Rh factors, Blood cells: Red Blood Cells, White Blood Cells.
25 Sep to 30 Sep	→ Malaria, Discovery of Malaria, Vectors of Malaria, Distribution of Malaria in India.
3 Oct to 7 Oct	→ Symptoms & Control of Malaria → Test of General Diseases → Hepatitis, Types of Hepatitis.
9 Oct to 14 Oct	→ Symptoms of Hepatitis, Transmission of Hepatitis, Vaccine & Control of Hepatitis. Revision of Blood Groups.
16 Oct to 21 Oct	Tuberculosis, Types of Tuberculosis, Sign & Symptoms of tuberculosis, Diagnosis.
23 Oct to 28 Oct	Drug Resistance, Vaccine and different Control Measures of Tuberculosis
30 Oct to 4 Nov	→ Diabetes, Different types of Diabetes, → Test of Malaria (Symptoms & Control)
6 Nov to 8 Nov	→ Symptoms of Diabetes. → Control of Diabetes. → Revision of Tuberculosis, Diabetes.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Full Syllabus Revision & Test

Sweety

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mrs. Priyanka
Class with sem :	M.A. English (Previous) Sem-1
Subject / Paper :-	Appreciation of Literature

Week	Topics
25 Jul to 29 Jul	Introduction to the syllabus and examination scheme.
31 Jul to 5 Aug	Introduction to emerging trends of Literary Theory.
7 Aug to 12 Aug	Discussion about basic critical terms of different theories.
14 Aug to 19 Aug	Introduction to William Henry Hudson: Textual reading of the chapter mentioned in Unit-1.
21 Aug to 26 Aug	Continuation of textual reading. Analysis of the text.
28 Aug to 2 Sep	Discussion of long and short questions based on the text mentioned in syllabus.
4 Sep to 9 Sep	Doubt removal class, Presentation, Test.
11 Sep to 16 Sep	Introduction to Terry Eagleton. Textual reading with explanation.

18 Sep to 23 Sep	Continuation of textual reading.
25 Sep to 30 Sep	Discussion on short and long answer type questions.
3 Oct to 7 Oct	Doubt removal class, Presentation, Test
9 Oct to 14 Oct	Introduction to Marjorie Boulton. Textual reading of the work.
16 Oct to 21 Oct	Continuation of textual reading with explanation.
23 Oct to 28 Oct	Discussion on short and long answer type questions. Doubt removal class, Test
30 Oct to 4 Nov	Introduction to Orhan Pamuk. Textual reading of the work
6 Nov to 8 Nov	Discussion on short and long answer type questions. Doubt removal class, Test, Home Assignment
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Doubt removal class, Revision of whole syllabus, House exam.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms Mainka
Class with sem :	M.A. English (Previous) Sem-1
Subject / Paper :-	English Drama - I

Week	Topics
25 Jul to 29 Jul	Introduction to syllabus and examination pattern.
31 Jul to 5 Aug	Introduction of Elizabethan Era, origin of drama and theatre. Introduction to Christopher Marlowe
7 Aug to 12 Aug	Detailed study of "Dr Faustus"
14 Aug to 19 Aug	Analysis of "Dr Faustus".
21 Aug to 26 Aug	Discussion of short and long questions of "Dr Faustus". Doubt removal Class, Test.
28 Aug to 2 Sep	Detailed study of Socio-Political and economic condition during the time period of Ben Jonson. Introduction to Ben Johnson
4 Sep to 9 Sep	Detailed act wise study of Volpone.
11 Sep to 16 Sep	Stylistic analysis of Ben Jonson's Volpone.

18 Sep to 23 Sep	Discussion of short and long answer questions of "Volpone". Doubt removal class, Test.
25 Sep to 30 Sep	Detailed study of socio-political and economic condition of Age of Shakespeare.
3 Oct to 7 Oct	Detailed study of "Julius Caesar".
9 Oct to 14 Oct	Analysis of "Julius Caesar".
16 Oct to 21 Oct	Discussion of short and long questions of "Julius Caesar". Doubt removal class, Test
23 Oct to 28 Oct	Socio-political and economic conditions of time period of William Congreve. Introduction to William Congreve.
30 Oct to 4 Nov	Detailed study of "The Way of the World". Analysis of the work.
6 Nov to 8 Nov	Discussion of short and long questions of the Play "The Way of the World"; Doubt removal class.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Home Assignment, Revision, House Exam

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms Mainka
Class with sem :	M.A. English (Previous) Sem-1
Subject / Paper :-	Indian Writings in English - I

Week	Topics
25 Jul to 29 Jul	Introduction to syllabus and examination scheme. Introduction to Indian Writings and history of Indian English writings.
31 Jul to 5 Aug	Introduction to the poet A.K. Ramanujan. Explanation of "Love Poem for a Wife-I" Explanation of the Poem "The Last of the Princes"
7 Aug to 12 Aug	Discussion of short and long questions, Doubt removal class, Test
14 Aug to 19 Aug	Introduction to the poet Kamala Das. Explanation of the poem "An Introduction". Explanation of "Dance of the Eunuchs".
21 Aug to 26 Aug	Discussion of short and long questions of the poems. Doubt removal class, Test
28 Aug to 2 Sep	Introduction to Khushwant Singh. Introduction to "Train to Pakistan".
4 Sep to 9 Sep	Continue reading of "Train to Pakistan" Analysis of the work
11 Sep to 16 Sep	Discussion of short and long questions of the work.

18 Sep to 23 Sep	Doubt removal class, Test
25 Sep to 30 Sep	Introduction to R.K. Narayan. Introduction to "The Guide"
3 Oct to 7 Oct	Detailed study of the work "The Guide" Analysis of the work.
9 Oct to 14 Oct	Discussion of questions related to "The Guide"
16 Oct to 21 Oct	Doubt removal class, Test
23 Oct to 28 Oct	Introduction to Mahesh Dattani. Introduction to "Final Solutions"
30 Oct to 4 Nov	Continue reading of "Final Solutions" Analysis of the work
6 Nov to 8 Nov	Discussion of short and long questions of the work. Doubt removal class.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Home Assignment, Revision, House exam.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms Mainka
Class with sem :	M.A Previous (Ist Sem) English
Subject / Paper :-	Linguistics - I

Week	Topics
25 Jul to 29 Jul	Introduction to the syllabus and examination scheme.
31 Jul to 5 Aug	Introduction and familiarity with the terms given in unit - I Phonetics and Segmental Phonology.
7 Aug to 12 Aug	Explanation of organs of speech and speech Mechanism, classification of RP Sounds.
14 Aug to 19 Aug	Discussion on 'Three-Term label and detailed description', 'Syllable and its structure.
21 Aug to 26 Aug	Discussion on question/answers of unit I, class Test of unit I.
28 Aug to 2 Sep	Introduction to Phonoly : Supra-Segmental features of English. Discussion on word accent, form and content words.
4 Sep to 9 Sep	Discussion on Weak and strong forms, Intonation, Juncture and phonetic Transcription.
11 Sep to 16 Sep	Discussion on question/answers of unit-II and class Test of unit-II.

18 Sep to 23 Sep	Introduction to Morphology (Unit-3) Detailed discussion on Inflactional and Derivational Morphology.
25 Sep to 30 Sep	Discussion on other methods of Word formation, morphological analysis of English Words.
3 Oct to 7 Oct	Discussion on questions/answers related to unit 3 and class Test of unit-3.
9 Oct to 14 Oct	Introduction to syntax and Semantics.
16 Oct to 21 Oct	Detailed explanation of Verb pattens by A.S. Hornby.
23 Oct to 28 Oct	Detailed explanation of the meaning of words and sentences from chapter 1 from The Routledge handbook of Linguistics.
30 Oct to 4 Nov	Questions / Answers discussion of unit - IV
6 Nov to 8 Nov	Class Test of unit - IV and doubt removal classes.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision classes and doubt removal classes.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Kumari Sangita
Class with sem :	M.Sc I Sem I
Subject / Paper :-	Inorganic Chemistry - I (Concepts in Inorganic Chemistry)

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	Group Theory: Symmetry elements and Symmetry operations, Pure Rotations (C_n Rotations), Improper Rotations, Rotation-Reflection (S_n) & Rotation-Inversion ($\bar{n}$ Axes), Point symmetry group,
28 Aug to 2 Sep	Schonflies Symbols, representation of groups by matrices representation for the C_n, C_{nv}, C_{nh}, D_{nh} etc. groups to be (worked out explicitly), Character of a representation, reducible and irreducible representations.
4 Sep to 9 Sep	The great orthogonality theorem and its importance. Derivation of Character tables of C_{2v}, C_{3v} and D_{2h} and their use.
11 Sep to 16 Sep	VSEPR Theory, $d\pi$-$p\pi$ bonds, Bent rule and energetics of hybridization. Stepwise and overall formation Constants and their Interactions trends in stepwise constants

18 Sep to 23 Sep	Factors affecting stability of metal complexes with reference to the nature of metal ion & ligand. Irving - William series, chelate effect and its thermodynamics origin.
25 Sep to 30 Sep	Crystal field theory and its limitation, Crystal field effects: d-orbital splitting in octahedral, Square planar, square pyramidal and TBP complexes
3 Oct to 7 Oct	Jahn Teller distortion molecular orbital theory of octahedral, tetrahedral and square planar complexes (with & without π bonding)
9 Oct to 14 Oct	Inert & labile complexes, kinetic applications of valance bond & Crystal field theories, kinetics of octahedral substitution, acid hydrolysis,
16 Oct to 21 Oct	factors affecting acid hydrolysis, base hydrolysis conjugate base mechanism, direct and indirect evidances in favour of conjugate mechanism.
23 Oct to 28 Oct	Anation reaction, reactions without metal ligand bond cleavage, racemization of tris chelate complexes.
30 Oct to 4 Nov	
6 Nov to 8 Nov	
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Ritika Chaudhary
Class with sem :	M.Sc. I (I^{st} Sem.)
Subject / Paper :-	Chemistry (Physical Chemistry, P-II)

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	Introduction to Quantum mechanics, Postulates of Quantum mechanics, Quantum mechanical operators and their commutation relation, Hermitian operators, eigen function and eigen values.
28 Aug to 2 Sep	Angular momentum operators and their commutation relation (L_x, L_y, L_z & L^2) ladder operators and its effect on angular momentum operator. Derivation of uncertainty principle (x & p) Schrodinger wave eq. for a free particle and for particle in 1-D box.
4 Sep to 9 Sep	Evaluation of average position, average momentum and average energy, pictorial representation of the wave eq. and energy for particle in 1-D box, utility of particle in 1-D box and Schrodinger wave eq. for a particle in a 3-D box and the concept of degeneracy of energy levels.
11 Sep to 16 Sep	First and second law of thermodynamics including Carnot cycle, Refrigerator, Entropy changes in reversible and irreversible process, variation of entropy with temp., pressure and volume

18 Sep to 23 Sep	Criteria for the spontaneity of rxn; free energy functions and their significance, maxwell relations, partial molar quantities (free energy, volume, heat capacity)
25 Sep to 30 Sep	Gibb's-Duhem eq., variation of chemical potential with temp. and pressure, chemical potential for an ideal gas, thermodynamic functions of mixing (free energy, entropy, volume and enthalpy)
3 Oct to 7 Oct	Test of Thermodynamics Chemical Dynamics - Brief description of integrated rate laws of zero, first and second order reactions with graphical representation, Lindemann - Hinshelwood mechanism of unimolecular reaction.
9 Oct to 14 Oct	Rate law for opposing reactions (1st & IInd order), Rate law for consecutive reactions, Kinetics of parallel reactions.
16 Oct to 21 Oct	Chain reactions (Formation of HBr & HCl, decomposition of acetaldehyde & ethane), apparent activation energy, chain length, Rice-Herzfeld mechanism (acetaldehyde). Assignment on Chemical Dynamics
23 Oct to 28 Oct	Electrochemistry - Debye-Huckel theory of ion-ion interaction (ionic cloud, Poisson's eq., excess charge density, linearization of Boltzmann eq., linearized Poisson Boltzmann eq. and its solution,
30 Oct to 4 Nov	Excess charge density and potential as a function of distance from the central ion, Debye-Huckel reciprocal length, ionic cloud and its contribution to the total potential), Debye-Huckel limiting law
6 Nov to 8 Nov	Activity coefficient and ion-ion interactions and its physical significance, mean ionic activity coefficient, Debye-Huckel-Onsager treatment for aqueous solutions and non-aqueous solutions, Debye-Falkenhagen effect, Wein effect. Presentation on Electrochemistry
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Complete revision of full syllabus

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Simaran
Class with sem :	M.Sc. Ist Year (Ist Sem)
Subject / Paper :-	Chemistry (Organic chemistry P-III)

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Nature of bonding in organic molecules - Delocalised chemical bonding, conjugation, cross - conjugation, concept of aromaticity, Huckel's rule, energy level of π - molecular orbitals, annulenes, anti - aromaticity, homo - aromaticity, bonds weaker than covalent, addition compounds.

18 Sep to 23 Sep	Reaction mechanism - structure and reactivity, types of mechanisms, types of reaction, relationship between thermodynamic stability and rate of reaction - kinetic V/s thermodynamic, control of product formation - Hammond postulate, Potential energy diagram, transition state and intermediates.
25 Sep to 30 Sep	Methods of determining mechanism, guide line for proposing reaction mechanism, the Hammet equation, linear free energy relationship, substituent and reaction constants, generation, structure, stability and reactivity of reactive intermediate [Test - Reaction mechanism]
3 Oct to 7 Oct	carbocation, carboanions, free radical, Carbenes, nitrenes, Alliphatic nucleophilic and electrophilic substitution, SN-1, SN-2, mixed SN1 and SN2. SNi and SET mechanism, neighbouring group mechanisms, neighbouring group participation by (P) and (S) bond, anchimeric assistance, Reactivity effects of substrate structure, attacking nucleophile
9 Oct to 14 Oct	leaving group and reaction medium, ambident nucleophile regioselectivity, phase transfer catalysis, SE1 mechanism, Biomolecular mechanisms, SE2 and SE1, electrophilic substitution accompained by double bonds shifts, Effect of substrate, leaving group, Solvent polarity on reactivity
16 Oct to 21 Oct	Stereochemistry - 1 - Introduction to molecular symmetry and chirality, D-L, R-S, E-Z and three - erythro nomenculture, interconversion of fischer, Newman, Sawhorse, flying wedge formulae, conformational configuration, fudged and bridged bicyclic system
23 Oct to 28 Oct	(Declains) and sugar, conformation and reactivity some examples, optical activity in absence of chiral carbon (biphenyls, alleelenes, anso compound, cyclo phanes (hemispiranes and spiranes), stereochemistry of compound containing nitrogen, sulphur and phosphorus
30 Oct to 4 Nov	Stereochemistry - 3 - Tropicity of ligands and faces, their nomenculture and prostereoisomerism, stereo-genecity, chirogenecity, pseudo asymmetry and prochiral centre, stereospecific and stereoselective reaction
6 Nov to 8 Nov	Asymmetric synthesis, Enantiomer excess % enantio-selectivity, optical purity, % diastereomeric excess and % diastereoselectivity, asymmetric synthesis (basic principle, auxiliary, substrate, reagent and catalyst Controlled)
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revise full syllabus

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Kumari Sangita
Class with sem :	M.Sc I
Subject / Paper :-	Chemistry Practical (Inorganic Chemistry)

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	Qualitative analysis of less common metal ion - Introduction.
28 Aug to 2 Sep	Qualitative analysis of less common metal ion
4 Sep to 9 Sep	Qualitative analysis of less common metal ion.
11 Sep to 16 Sep	Qualitative analysis of insoluble sulphates

18 Sep to 23 Sep	Qualitative analysis of insoluble sulphates
25 Sep to 30 Sep	Qualitative analysis of insoluble sulphate
3 Oct to 7 Oct	Qualitative analysis of insoluble salts.
9 Oct to 14 Oct	Qualitative analysis of insoluble salts.
16 Oct to 21 Oct	Quantitative analysis : Iodometric titration Introduction
23 Oct to 28 Oct	Quantitative analysis : Iodometric titration
30 Oct to 4 Nov	Revision & viva preparation
6 Nov to 8 Nov	Revision & viva preparation
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision & Viva preparation.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Pooja Sharma
Class with sem :	M.Sc 1st (1 sem)
Subject / Paper :-	Physical Chemistry Practical

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Introduction of pH-metry. Determine the strength of strong acid by pH-metric titration with strong base

18 Sep to 23 Sep	Determine the strength of weak acid by pH metric titration with strong base.
25 Sep to 30 Sep	Introduction of conductometry Determine the strength of weak acid by conductometric titration with strong base
3 Oct to 7 Oct	Determine the strength of strong acid by conductometric titration with strong base.
9 Oct to 14 Oct	Determine the strength of strong acid and weak acid in a mixture by conductometric titration with strong base.
16 Oct to 21 Oct	Introduction of thermochemistry Determination of heat of neutralization (1) NaOH Vs HCl (2) NaOH Vs CH_3COOH
23 Oct to 28 Oct	Introduction of chemical kinetics Study of kinetics of hydrolysis of an ester in the presence of acid
30 Oct to 4 Nov	Saponification of ethylacetate
6 Nov to 8 Nov	compare the relative strength of acids
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Tanya
Class with sem :	Msc 1st (1st Sem)
Subject / Paper :-	19CHE - 104: Spectroscopy-I

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	Electronic Spectroscopy :- Introduction of UV visible phenomenon theory of electronic spectroscopy, instrumentation and sampling
28 Aug to 2 Sep	Solvent effects, conjugation effects, the chromophore and auxochrome, concepts, rules for prediction of wavelength, applications of electronic spectroscopy - dienes, polyenes, carbonyl compounds, benzene and its substituted derivatives aromatic hydrocarbon other than benzene, heterocyclic systems
4 Sep to 9 Sep	and stereochemical factors in electronic spectroscopy Infrared spectroscopy :- Principle, units of frequency, wavelength & wavenumber, molecular vibrations, factors influencing vibrational frequencies, Instrumentation -
11 Sep to 16 Sep	dispersive and interferometric instruments, sampling techniques, applications of IR - identify by fingerprint and functional group of different Organic molecules qualitative infrared analysis, attenuated total reluctance and multiple internal reluctance

18 Sep to 23 Sep	Nuclear Magnetic Resonance Spectroscopy :- Introduction, nuclear spin states, nuclear magnetic moments, resonance population densities, chemical shift and shielding mechanism, instrumentation, chemical equivalence integrals and integration, chemical environment
25 Sep to 30 Sep	& chemical shift, local diamagnetic shift - magnetic anisotropy, spin-spin splitting. Pascal's triangle, comparision of spectra at low and high field strength, spin-spin coupling - symbols, mechanism, types, rule of magnetic equivalence, concept of non
3 Oct to 7 Oct	equivalence, measuring coupling constant, spectra of homoaromatic & heteroaromatic system. Spectra of homotopic, enantiotopic & diastereotopic system. survey of typical proton NMR absorption, deuterium exchange, chemical shift reagent, double resonance
9 Oct to 14 Oct	NOE difference spectra. Mass spectroscopy :- Introduction ion production EI, CI, FD and FD and FAB, factors affecting fragmentation, ion analysis, ion abundance. Mass spectral fragmentation
16 Oct to 21 Oct	Assignment on fragmentation patterns - simple cleavage, retro diel Alder, Hydrogen transfer rearrangement, McLafferty rearrangement. Molecular ion peak, metastable ion peak Presentation
23 Oct to 28 Oct	Fragmentation pattern of hydrocarbons, alcohols phenols, ethers, aldehydes, ketones, esters, carboxylic acid, amines, nitro, amides, nitriles, analysis by mass spectrometry. Carbon-13 NMR spectroscopy and Heteronuclear coupling :- General considerations,
30 Oct to 4 Nov	Carbon-13 nucleus, Chemical shift and its Calculation, proton coupled and decoupled carbon-13 spectra, nuclear Overhauser enhancement, cross polarization, problems with integration.
6 Nov to 8 Nov	Molecular relaxation process, off-resonance decoupling distortionless, enhancement by polarisation transfer. heteronuclear coupling of carbon to deuterium, fluorine & phosphorus. Spectroscopy problems of IR, NMR, electronic and joint IR-UV(VIS) NMR - mass spec problem
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of Syllabus

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Tanya
Class with sem :	Msc Ist (Ist Sem)
Subject / Paper :-	19CHE-107 Practical-III

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	To know about common laboratory apparatus and glassware.
28 Aug to 2 Sep	To purify a given sample of organic compound by sublimation
4 Sep to 9 Sep	Purification of given mixture of ethyl acetate and nitrobenzene by simple distillation
11 Sep to 16 Sep	To prepare crystals of pure benzoic acid from an impure sample.

18 Sep to 23 Sep	Preparation of p-nitro acet anilide
25 Sep to 30 Sep	Preparation of benzene azo-β naphthol
3 Oct to 7 Oct	Preparation of p-bromo acetanalide
9 Oct to 14 Oct	Preparation of tribromo aniline
16 Oct to 21 Oct	To determine the melting point of benzoic acid
23 Oct to 28 Oct	To determine the no of component present in given mixture by thin layer chromatography.
30 Oct to 4 Nov	—— Revision ——
6 Nov to 8 Nov	—— Revision ——
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	—— Revision ——

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Dipti
Class with sem :	MSc I st Sem
Subject / Paper :-	Mathematics / Mechanics

Week	Topics
25 Jul to 29 Jul	———
31 Jul to 5 Aug	———
7 Aug to 12 Aug	———
14 Aug to 19 Aug	———
21 Aug to 26 Aug	———
28 Aug to 2 Sep	———
4 Sep to 9 Sep	———
11 Sep to 16 Sep	Introduction of Moments and products of Inertia, Th^{n}. of Ilal axis, Theorem of Lar axis, Angular Momentum of a rigid body about a fixed pt. and about a fixed axis.

16 Sep to 23 Sep	Principle axis, K.E of a rigid body rotating about a fixed pt. Taking Doubts. Complete Unit-1, Introduction of unit-2 Generalised Coordinates.
25 Sep to 30 Sep	Holonomic and Non-holonomic systems, Scleronomic and Rheonomic systems. Lagrange's eq^n for a simple holonomic dynamical system.
3 Oct to 7 Oct	Lagrange's eq^n for conservative and Impulsive forces, K.E of a quadratic function of velocities Generalised potential energy eq^n for conservative fields.
9 Oct to 14 Oct	Hamilton's Canonical variables, Donkin's Theⁿ, Hamilton canonical eq^n's, Cyclic Coordinates, Routh's procedure. Taking doubts. Unit-2 Complete. Taking doubts
16 Oct to 23 Oct	Introduction of unit-3. Define Poisson bracket, Hamilton's Principle, Principle of least action. Poincare Cartan Integral Invariant, Whittaker's eq^n, Jacobi eq^n's, Theⁿ of Lee-Huwa-Chung.
25 Oct to 28 Oct	Method of separation of variables, Lagrange Brackets, Canonical transformations, condition of Canonical character of a transformation. Lagrange's Brackets & Poisson Brackets. Invariance of Lagrange & Poisson brackets under canonical transformation
30 Oct to 4 Nov	Unit-3 Complete. Test of unit-1, Unit-4 Start. Introduction of Gravitation. Attraction and Potential of rod, disc spherical Shell and sphere, Laplace and Poisson eq^n's.
6 Nov to 11 Nov	Work done by self attracting systems, Distribution for a given potential, Equipotential surfaces, Surface and Solid harmonics, Taking doubts, Surface density in terms of surface harmonics
13 Nov to 18 Nov	
20 Nov to 24 Nov	Taking doubts-1 Unit-4 Complete Assignment Unit-3 & Taking test Unit-2

Lesson Plan from 25-July-2023 to 24-Nov-2023

· UG / PG Odd Semester

Lecturer :	Dr. ANJU RANI
Class with sem :	M.Sc.I (Ist Semester)
Subject / Paper :-	Abstract Algebra

Week	Topics
25 Jul to 29 Jul	UNIT-I → Basic, Defn of a group, examples including matrices permutation group groups of symmetry
31 Jul to 5 Aug	Lagrange's theorem, Normal and abnormal subgroups, composition series Jordan Holder theorem, Solvable groups, Derived series
7 Aug to 12 Aug	Solvable groups, Solvability of S_n - the symmetric group of degree $n \geq 2$ discussion on previous topics
14 Aug to 19 Aug	Revise unit (I) and Test of Unit (I) and taking doubts
21 Aug to 26 Aug	Taking doubts, Revision, UNIT-I Test Nilpotent groups, central and their properties, Equivalent conditions for a
28 Aug to 2 Sep	for a finite group to be nilpotent, Upper and lower central series description of group of order p^2 and pq.
4 Sep to 9 Sep	where p and q are distinct primes taking doubts, revise, Test - UNIT - II
11 Sep to 16 Sep	UNIT - I and UNIT - II UNIT - III Defn of a ring, examples including congruence classes modulon

18 Sep to 23 Sep	Ideals and homomorphism, quotient ring, polynomial ring in one variable over a ring, Units, Non zero divisors integral domains UFD, PID ED, primary decomposition of ideals,
25 Sep to 30 Sep	Radical of an ideal, Primary ideal Primary decompositions. Minor Test
3 Oct to 7 Oct	taking doubts and Exercise revision of UNIT III and Test
9 Oct to 14 Oct	UNIT-IV Similarity of matrices, similarity of linear transformation, Invariant sub-spaces, triangular form, Invariant-cum decomposition, nilpotent transformation, Jordan canonical form
16 Oct to 21 Oct	Rational canonical form, taking doubts, Revision, Test Unit IV
23 Oct to 28 Oct	Revision of Unit I, II, III and IV, revise examples
30 Oct to 4 Nov	Diwali Vacation
6 Nov to 8 Nov	
9 Nov to 16 Nov	taking doubts, revise important topics.
17 Nov to 24 Nov	

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Munaka
Class with sem :	M.Sc-1st sem-1st
Subject / Paper :-	Differential Equations and Calculus of Variation

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Initial value Problem and equivalent Integral equation. Lipschitz condition Picard fundamental existence for $\dot{x} = f(t,x)$

18 Sep to 23 Sep	Lagrangeh identity and Green's formula for second order differential equations.
25 Sep to 30 Sep	Adjoint systems, Self adjoint equations of second order, Linear systems, matrix method for homogeneous First order L.D.E
3 Oct to 7 Oct	Wronskin of a system, Method of variation of Constant for a non homogeneous system with constant Coefficients
9 Oct to 14 Oct	Non-linear differential system. Plane autonomous system and critical points classification of critical Point, rotation Point
16 Oct to 21 Oct	Almost linear system, Liapnor function and Liapunov's method to determine stability for non-linear systems.
23 Oct to 28 Oct	Eloquet theory for periodic system Limit cycles, Bendixson non existance theorem.
30 Oct to 4 Nov	Poincare - Bendixson theorem, Index of a critical Point. Test of Unit I - II
6 Nov to 8 Nov	Motivating problem of calculus of variation, shortest distance, minimum surface of Resolution.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Fundamental Lemma of calcus of variation, Euler equation for one dependent function. Test of Unit-IV

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Mohini
Class with sem :	M.Sc-I (Sem-I)
Subject / Paper :-	Mathematical Statistics

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	Probability, Classical, Statistical and axiomatic approach, Addition theorems of Probability, examples. Conditional Probability, Multiplication theorem of Probability for independent events, examples, Tut.
28 Aug to 2 Sep	Baye's Theorem, examples, Bayes Theorem application, Theorem on Bayes theorem, pairwise independent events, mutually independent events, examples, Problem Discussion.
4 Sep to 9 Sep	Random variable, Discrete and Continuous random variables, examples, Distribution function, Discrete Distribution function Continuous distribution function
11 Sep to 16 Sep	Bivariate Discrete random variables, Joint, Marginal and Conditional Probability mass function, examples, Conditional Probability mass function, Independence random variables examples.

18 Sep to 23 Sep	Mathematical Expectations and its properties (addition and multiplication theorems of expectation), Expectation of a linear combination of random variables, examples. Variance, Properties of Variance.
25 Sep to 30 Sep	Variance of a linear combination of random variable, example, Covariance, moment generating function, properties of m.g.f, Uniqueness theorem of m.g.f, Test, Binomial distribution, examples.
3 Oct to 7 Oct	Moment of Binomial distribution, Recurrence relation for the moment of Binomial distribution, m.g.f, mean deviation about mean of B. distribution, additive property, Examples.
9 Oct to 14 Oct	Poission Distribution, examples, moments of Poission distribution, Recurrence relation for moments of Poission distribution, m.g.f mean deviation about mean, additive properties, examples. Geometric Distribution and its properties.
16 Oct to 21 Oct	Normal Distribution, normal distribution as a limiting form of Binomial distribution, mode, median, m.g.f, properties. Gamma distribution and its all properties, Problem Discussion
23 Oct to 28 Oct	Gamma distribution and uniform distribution and its properties, Problem discussion, Test, Central limit theorem, Weak law of large number.
30 Oct to 4 Nov	Chebychev's Inequality, Point and Interval estimation, Unbiasedness Sufficiency, Consistency and efficiency, revision Test of Hypothesis, null and Alternative Hypothesis.
6 Nov to 8 Nov	Testing of Hypothesis, null and alternative Hypothesis, examples Simple and Composite Hypothesis, types of errors, level of significance, power of the test, Critical region.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	One Tailed and two tailed Test, T-test, Chi-square Test, f-Test, Presentations.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Seema
Class with sem :	M.Sc - I (Sem-I)
Subject / Paper :-	Real Analysis

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Introduction to Real Analysis. Some Basic Definition Related to Sequence & Series. Sequence and Series of functions.

18 Sep to 23 Sep	P.W.C and U.C. Cauchy criterion for U.C.. Weierstrass M-test, their Related example, Abel's and Dirichet's Introduction & Test.
25 Sep to 30 Sep	U.C and u.continuity and its example. U.C & R-Stieltjes integration, Uniform convergence and differentiation. Weierstrass theorem.
3 Oct to 7 Oct	Power series, Uniqueness theorem, Function of several variables, linear transformation in R^n, chain rule, Partial derivatives. Problem Discussion
9 Oct to 14 Oct	Taylor's theorm, Inverse function theorem Implicit function theorem, Jacobians extremum problems with constraints. Lagranges multipliers method.
16 Oct to 21 Oct	Set function, Intuitive idea of measure elementry properties of measure, Measurable set and their fundamental properties.
23 Oct to 28 Oct	Lebesgue measure of set of real no. Borel set, Closed F_σ and G_δ set Non - Measurable sets. Problem discussion
30 Oct to 4 Nov	Definition and existence of Riemann-stieljes integral and their properties. Integration and differentiation.
6 Nov to 8 Nov	Integration of vector valued function rectifiable curves.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Problem Discussion Revision Test Series.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr NUTAN SHARMA
Class with sem :	M.Sc- MATHEMATICS SEMESTER - I
Subject / Paper :-	IT SKILLS.

Week	Topics
25 Jul to 29 Jul	Introduction to Pc: Introduction, objective, Central Processing unit (CPU), Memory and storage Devices, Memory Hierarchy,
31 Jul to 5 Aug	Types, Input/output Devices: Monitors, Pointers. Scanners, Keyboard, Speaker Mouse, Software: Classification of Software, revision.
7 Aug to 12 Aug	Evolution of operating system, types of operating system, Criteria for classification of Software, Computer virues.
14 Aug to 19 Aug	Data, Information, Data Vs Information, Information Vs Knowledge, Internet: Introduction, Evolution of Internet, Advantages of Internet, Internet components, Internet Addresses, connection to Internet,
21 Aug to 26 Aug	Concepts of Web Browsers: What is Web Browser, Microsoft Internet Explorer, Mozilla firefox, Search Engine, Data Communication, Revision
28 Aug to 2 Sep	Types of Networks. LAN Topologies Introduction to HTML, HTML Basics, working with HTML text. Using Lists in Web Documents,
4 Sep to 9 Sep	Using Graphics and Links Tables; Frames and Forms. An overview of multimedia: Multimedia components of multimedia,
11 Sep to 16 Sep	Application of multimedia Hardware for multimedia Computer, Software for multimedia.

18 Sep to 23 Sep	Microsoft Power Points: Creating a new Presentations, Saving and Printing Presentations. Different Kinds of Power Point views,
25 Sep to 30 Sep	Insert notes to the Presentation, Animation and Show, Insert Images and Files:
3 Oct to 7 Oct	Microsoft-Excel: Introduction, Components of the MS Excel Window, Entering data in WorkSheets,
9 Oct to 14 Oct	Editing and Formatting and Styling of the data, Print Preview, Sorting and Filtering data,
16 Oct to 21 Oct	Conditional formating Revision, Test
23 Oct to 28 Oct	Microsoft Word :- Basics of Microsoft Word, Editing a document,
30 Oct to 4 Nov	Saving a Document, Creating Table Mail merges Test revision
6 Nov to 8 Nov	Headers and Footers, Spelling and Grammer Checker, Revision Test
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Macro, Insert Graphs and pictures in the document. Test Revision all Syllabus.

Lesson Plan from 25-July-2023 to 24-Nov-2023

UG / PG Odd Semester (Mathematics)

Lecturer :	सुश्री कुमुद , डॉ. मधुमालती शर्मा
Class with sem :	एम. एस.सी - प्रथम वर्ष
Subject / Paper :-	हिंदी संचार कौशल

Week	Topics
25 Jul to 29 Jul	पाठ्यक्रम परिचय। संचार की अवधारणा, अर्थ , स्वरूप एवं महत्व।
31 Jul to 5 Aug	संचार प्रक्रिया तथा संचार के प्रकार।
7 Aug to 12 Aug	पठित पाठ्यक्रम की पुनरावृत्ति , कक्षा-परीक्षा।
14 Aug to 19 Aug	संप्रेषण व संप्रेषण की प्रकार एवं माध्यम।
21 Aug to 26 Aug	भाषा संप्रेषण , साक्षात्कार , भाषण कला व लेखन।
28 Aug to 2 Sep	पत्र लेखन , पठित पाठ्यक्रम की पुनरावृत्ति।
4 Sep to 9 Sep	हिंदी भाषा एवं बोलियों का उद्भव एवं विकास।
11 Sep to 16 Sep	देवनागरी लिपि की विशेषताएँ। कक्षा परीक्षा।

18 Sep to 23 Sep	व्याकरण (मुहावरे, लोकोक्तियाँ, समानार्थक तथा विपरीतार्थक शब्द)
25 Sep to 30 Sep	हिंदी की संवैधानिक स्थिति, राष्ट्रपति अध्यादेश।
3 Oct to 7 Oct	गृह परियोजना कार्य एवं पठित पाठ्यक्रम की पुनरावृत्ति।
9 Oct to 14 Oct	राजभाषा अधिनियम, पत्र लेखन का अर्थ।
16 Oct to 21 Oct	पत्र लेखन के प्रकार, अनुवाद : परिभाषा एवं स्वरूप।
23 Oct to 28 Oct	अनुवाद प्रक्रिया, वर्गीकरण।
30 Oct to 4 Nov	अनुवाद की प्रकृति। सृजनात्मक लेखन।
6 Nov to 8 Nov	कक्षा परीक्षा, पठित पाठ्यक्रम की पुनरावृत्ति।
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	पुनरावृत्ति परीक्षा प्रारंभ होने तक।

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Nisha Sharma
Class with sem :	MSc. (Semester-I)
Subject / Paper :-	Electronics.

Week	Topics
25 Jul to 29 Jul	Semiconductor : Band gap, types of semiconductor ; intrinsic and extrinsic, direct and indirect band gap
31 Jul to 5 Aug	charge density in P and N type semiconductor, conduction by charge drift and diffusion. Diodes : P-N diode, characteristics of PN diode
7 Aug to 12 Aug	Applications (Half and full wave rectifier, clipper, clamper) Zener diode, diff. b/w avalanche and zener breakdown, characteristics : CB, CE, CC, Relation between
14 Aug to 19 Aug	early effect in transistors, load line and Q-point, stability factor and stabilizing circuits, h-parameter analysis of BJT
21 Aug to 26 Aug	Unit - II Junction field effect Transistor (JFET) : Basic circuits and operation of JFET, Types of JFET;
28 Aug to 2 Sep	n channel JFET and P channel JFET, characteristics of JFETs, Advantages and disadvantages of JFET, Small signal analysis of
4 Sep to 9 Sep	FETs, FET biasing FET as voltage variable resistor (VVR) Metal oxide semiconductor field effect transistor (MOS-FET)
11 Sep to 16 Sep	Basic circuit and operation of MOSFET Types of MOSFETs, characteristics of MOSFET, comparison b/w depletion & enhancement MOSFET, Applications of FET

18 Sep to 23 Sep	Unit-III :- Network theorems - node theorem, mesh theorem, Millman's theorem, thevenin's theorem, Norton's theorem and superposition theorem.
25 Sep to 30 Sep	Feedback in amplifiers: General theory of feedback, Negative feedback circuits: Voltage series feedback, Voltage shunt feedback, current series feedback,
3 Oct to 7 Oct	current shunt feedback, Advantages of negative feedback. Analysis of different feedback circuits: change in input and output impedances for negative feedback circuits. Emitter follower:
9 Oct to 14 Oct	circuits analysis, input and output impedances, voltage and current gain, Darlington - Emitter follower, Boot strapping.
16 Oct to 21 Oct	Unit-IV. Power amplifiers: Introduction, Diff. b/w voltage amplifier and power amplifier,
23 Oct to 28 Oct	class A power amplifier, Transformer coupled A amplifier, harmonic distortion in amplifiers, class A push-pull amplifier,
30 Oct to 4 Nov	class B power amplifier, class B push pull amplifier, class AB operation, Electronic voltage regulators:
6 Nov to 8 Nov	Basic ~~current~~ introduction, Zener diode as voltage regulator, single BJT shunt and series regulators,
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	feedback regulators, current regulators, overload and short circuit protection.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Indu Vashistha
Class with sem :	M.Sc I st
Subject / Paper :-	Quantum Mechanics - I

Week	Topics
25 Jul to 29 Jul	Recapitulation of basic concepts : why quantum mechanics? Two slit experiment with radiation and particles, wave and particle nature of EM radiation.
31 Jul to 5 Aug	Davisson and Germer experiment, wave function, Schrondinger wave equation. Expectation values, Ehrenfest Equation.
7 Aug to 12 Aug	Interpretative postulates of quantum mechanics : Dynamical variables as Hermitian operator, Eigenvalues and eigenfunctions. Expansion in eigenfunctions, orthonormality of eigen-function
14 Aug to 19 Aug	Closure property, probability function and Expectation value, Co-ordinate and momentum representations of wave function. Communication rule and the uncertainty relation
21 Aug to 26 Aug	UNIT - II , Preliminaries :- Hermitian and Unitary matrices, Transformation and diagonalisation of matrices matrices of infinite rank, Representation of dynamical variables and
28 Aug to 2 Sep	wave-function as matrices, change of basis, Hilbert Space representation, Dirac's ket. and bra notations, Time development of quantum System : Schrondinger, Helsenberg
4 Sep to 9 Sep	and Interaction pictures. Link with classical equations of motion, Quantization of a classical System. matrix theory of harmonic oscillator
11 Sep to 16 Sep	Spectrum of eigenvalues and eigen functions. matrices for position, momentum and energy operators.

18 Sep to 23 Sep	UNIT = III Particles in a cubical box, one dimensional harmonic oscillator, three dimensional harmonic oscillator in cartesian & spherical
25 Sep to 30 Sep	polar coordinates, eigen values, eigen-functions and degenracy of the states,
3 Oct to 7 Oct	Schrodinger equation for two body system the hydrogenatom problem : energy
9 Oct to 14 Oct	The hydrogen atom problem : eigen values, radial eigen function, radial probability distribution and degeneracy
16 Oct to 21 Oct	UNIT = IV : orbital angular momentum operator L, cartesian and spherical polar coordinate representation.
23 Oct to 28 Oct	commutation relations, orbital angular momentum and spiral rotations, Eigen values and Eigen functions of L^2 and L_z
30 Oct to 4 Nov	Spherical harmonics: General angular momentum J : Eigen values and eigen functions of J^2 and J_z.
6 Nov to 8 Nov	Matrix representation of angular momentum operators, Spin angular momentum, wave function including Spin : Spin one half
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Spin functions, Pauli spin matrices! Addition of angular momenta. Clebsch-Gordan coefficients and their calculations for $J_1 - J_2 - 1/2$, $J_1 - 1$ $J_2 - 1/2$ and $J_1 - J_2 - 1$

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Ankita Gupta.
Class with sem :	M.Sc Physics - IST year IST Sem
Subject / Paper :-	Classical Mechanics (22PHY-102)

Week	Topics
25 Jul to 29 Jul	Survey on Elementary Principles & Lagrangian formulation: Newtonian mechanics of one and many particle systems, Conservation laws, Constraints.
31 Jul to 5 Aug	Constraints classification, D'Alembert's Principle, Lagrange's eqn, dissipative forces, Generalized coordinates & momenta.
7 Aug to 12 Aug	Integrals of motion, Symmetries of space and time & their connection with Conservation laws, invariance under Galilean transformation.
14 Aug to 19 Aug	Hamilton's Principle, Derivation of Lagrange's from Hamilton's Principle, Principle of least action & application. Legendre transformation & Hamiltonian eqn of motion,
21 Aug to 26 Aug	The Physical significance of Hamiltonian, Cyclic coordinates, Routhian Procedure & eqn, Derivation of Hamiltonian eqn from variation Principle Canonical Transformation
28 Aug to 2 Sep	Derivation of Generating fun, examples, Properties Revision of Unit - I
4 Sep to 9 Sep	Poisson Bracket, special Cases of Poisson bracket, Poisson thm, Poisson bracket & Canonical transformation, Jacobi identity & its derivation.
11 Sep to 16 Sep	Lagrange bracket & its properties, the relationship b/w Poisson & Lagrange brackets & its derivation, the angular momenta & Poisson bracket

18 Sep to 23 Sep	Revision of Unit - 2 & test of Unit - 1
25 Sep to 30 Sep	Theory of small oscillations, formulation of problem, Eigenvalue eqn, freq of free vibrations & normal coordinates,
3 Oct to 7 Oct	free vibrations of a linear triatomic coordinates. Two body Central force problem introduction.
9 Oct to 14 Oct	Reduction to equivalent one body problem, the eqn of motion & first integrals, classification of orbits.
16 Oct to 21 Oct	Virial thm, the differential eqn for orbit, integrable power law in time in the kepler's problem.
23 Oct to 28 Oct	the laplace-Runge-Lenz vector, Scattering in Central force field. Hamilton-Jacabi theory introduction.
30 Oct to 4 Nov	H-J eqn & their solution, use of H-J method for the solution of Harmonic oscillator problem.
6 Nov to 8 Nov	Revision of unit - 3. Hamilton's principle fun, Hamilton's characteristic fun & their properties.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of unit - 4 & test of unit - 1, 2, 3, 4.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Sujata
Class with sem :	M.Sc Ist yr (Ist Sem)
Subject / Paper :-	Physics / Mathematical physics

Week	Topics
25 Jul to 29 Jul	Orthogonal, Unitary and Hermition matrices, Eigenvalues and eigenvectors of matrices, matrix diagonalization.
31 Jul to 5 Aug	Fundamentals of group velocity: Definition of a group and illustrative examples, Group multiplication table, rearrangement theorem.
7 Aug to 12 Aug	Cyclic groups, sub-groups and cosets, permutation groups, conjugate elements and class structure, normal devisors and factor groups
14 Aug to 19 Aug	Isomorphism and homomorphism, class multiplication, Group representation: Reducible and irreducible representations.
21 Aug to 26 Aug	Great orthogonality theorem (without proof) and its geometric interpretation.
28 Aug to 2 Sep	Solution of linear differential equation of first and second order with constant coefficients ordinary point, singular point.
4 Sep to 9 Sep	Series solution around an ordinary point, series solution around a regular singular point, solution of Legendre's differential equation.
11 Sep to 16 Sep	Solution of Bessel's differential equation, solution of Laguerre and Hermite's differential equations, fourier transform.

18 Sep to 23 Sep	fourier cosine and sine transform, Laplace transform, Properties of Laplace transforms, Inverse Laplace transformation.
25 Sep to 30 Sep	Bessel functions of the first kind $J_n(x)$, Generating function, Recurrence relations, Bessel integrals, orthonormality of $J_n(x)$
3 Oct to 7 Oct	Generating function, Recurrence relations and special properties, Rodrigue's formula, Orthonormality of $P_n(x)$;
9 Oct to 14 Oct	Generating function, recurrence relations, orthonormal property, Rodrigue's formula.
16 Oct to 21 Oct	Generating function, recurrence relations orthonormal property, Rodrigue's formula
23 Oct to 28 Oct	Complex algebra, functions of a complex variable, Analytic function, Cauchy-Riemann conditions Cauchy's integral theorem
30 Oct to 4 Nov	Cauchy's integral formula: Taylor and Laurent expansions: singularities; Cauchy's residue theorem.
6 Nov to 8 Nov	Cauchy principle value, singular points and evaluation of residues, Jordan's Lemma.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Evaluation of definite integrals of the type $\int_0^{2\pi} f(\sin\theta, \cos\theta)\,d\theta$; $\int_{-\infty}^{\infty} f(x)\,dx$; $\int_{-\infty}^{\infty} f_1 e^{iax}\,dx$ by using Cauchy residue's theorem.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Deepa Saini
Class with sem :	M.Sc Physics 1st Year 1st Sem
Subject / Paper :-	IT Fundamentals

Week	Topics
25 Jul to 29 Jul	Introduction, Characteristics, Evolution, Generation and Application of Computers, Basic Computer organization
31 Jul to 5 Aug	Input and output devices, Central Processing Unit, Memory and Storage Unit.
7 Aug to 12 Aug	Types of Software Free and open source Software, operating System, Types of operating system
14 Aug to 19 Aug	Functions of operating System, Information Technology, Components and Role of Information Technology, IT
21 Aug to 26 Aug	Internet and Social Media, MS- Word Creating, Editing, Saving and Printing of text document, Formatting, Editing
28 Aug to 2 Sep	Inserting Table, Page Breaks and Mail Merge, MS- Excel - Spreadsheet Basics, Creating, Editing, Saving and Printing
4 Sep to 9 Sep	Spreadsheet, working with functions and formulas, Graphical Representation of data, Charts and Graphs in Excel
11 Sep to 16 Sep	Error function, Interpretation and analysis of data

18 Sep to 23 Sep	Ms- Powerpoint, Powerpoint Basics, opening and viewing, Creating and Printing Power Point Presentation
25 Sep to 30 Sep	Adding and Custom Animation, Work with Graphics and Media.
3 Oct to 7 Oct	Matlab:- Introduction, Fundamental creation, Indexing, Information Resizing, Reshaping and sorting of
9 Oct to 14 Oct	Numeric Class, Characters and String
16 Oct to 21 Oct	Arithmetic, relational and logical operators in Matlab.
23 Oct to 28 Oct	Introduction to social Media, Measuring Monitoring and Analysing Social Media Trends and Impact
30 Oct to 4 Nov	History of Internet, Intranet, Web Browser, Search Engine, Application of Internet
6 Nov to 8 Nov	Qualitative Idea of E-Classical and Quantum Computers (Basic Idea)
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Renu.
Class with sem :	M.A. IInd year (IIIrd Sem)
Subject / Paper :-	Economics / Indian Economy I

Week	Topics
25 Jul to 29 Jul	State of Indian Economy since independence: National Income
31 Jul to 5 Aug	Sectoral Contribution and occupational distribution
7 Aug to 12 Aug	Need, Features and impact of Economic Reforms in India
14 Aug to 19 Aug	Second Generations Reforms, Present Challenges of Indian Economy.
21 Aug to 26 Aug	Poverty: nature, Extent, Estimates and Policy initiatives
28 Aug to 2 Sep	Unemployment: nature, Extent, Estimates and Policy initiatives
4 Sep to 9 Sep	Inter-State Disparities in the pattern of Development
11 Sep to 16 Sep	Price Trends and inflation, Parallel Economy.

18 Sep to 23 Sep	Pattern of Growth of Indian Agriculture since 1950s
25 Sep to 30 Sep	Green Revolution : Need, Features, Merits & Demerits
3 Oct to 7 Oct	Deceleration in the 1990s - Extent and Causes.
9 Oct to 14 Oct	Agricultural Price Policy, Food Security - Problems and Policy options.
16 Oct to 21 Oct	Industrial growth since independence
23 Oct to 28 Oct	Industrial Policy in Pre and post reforms period
30 Oct to 4 Nov	Impact of New Economic Policy on Indian Industry.
6 Nov to 8 Nov	Industrial finance in India, House Exam
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	National Manufacturing Policy, 2011

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Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr Renu
Class with sem :	M.A. IInd year (III Sem)
Subject / Paper :-	Economics / Agricultural Economics.

Week	Topics
25 Jul to 29 Jul	Nature and Scope of Economics of Agriculture
31 Jul to 5 Aug	Specificities of Farm Organization and Agricultural Production and Markets
7 Aug to 12 Aug	Inter-sector linkages of Agriculture
14 Aug to 19 Aug	Place of Agriculture in Indian Economy, Barriers to Agriculture
21 Aug to 26 Aug	Various types of Factor - Product, Factor-Factor and Product - Product Relations
28 Aug to 2 Sep	Farm Budgeting and Cost Concepts
4 Sep to 9 Sep	Role of Farm- Size and Structure in Equilibrium
11 Sep to 16 Sep	Nature and Types of risks and Uncertainties in Agriculture

18 Sep to 23 Sep	Schultz Theory of Traditional Agriculture
25 Sep to 30 Sep	Mellor's Model of Agricultural Development
3 Oct to 7 Oct	Hayami - Ruttan Induced Innovation Model of Agricultural Development
9 Oct to 14 Oct	Agricultural Transformation : Indian perspective.
16 Oct to 21 Oct	The New Economic Policy and Indian Agriculture
23 Oct to 28 Oct	Main Features of International Trade In Agricultural Commodities
30 Oct to 4 Nov	Agriculture in GATT Negotiations, WTO and Agriculture
6 Nov to 8 Nov	House Test
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Recent Developments in Indian Agricultural Policy.

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Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Neerja Parmar / Dr Renu
Class with sem :	M.A. ~~II~~ year (III Sem)
Subject / Paper :-	Economics / Basic Econometrics

Week	Topics
25 Jul to 29 Jul	Definition, Scope and Methodology of Econometrics, Simple Linear Regression Model.
31 Jul to 5 Aug	OLS - Method, Assumptions & Properties (Gauss Markov Theorem)
7 Aug to 12 Aug	Derivation and Interpretation of OLS Estimators of slope & Coefficients (B_1 & B_2)
14 Aug to 19 Aug	Standard Deviation & standard Error of Regression Coefficients (Derivation and Interpretation)
21 Aug to 26 Aug	Coefficient of Determination (R^2) and Correlation coefficient (r)
28 Aug to 2 Sep	Multiple Linear Regression Model, Properties of OLS estimators with two explanatory variables.
4 Sep to 9 Sep	Determination Coefficients R^2 & Adjusted R^2.
11 Sep to 16 Sep	Hypothesis Testing using t and F statistics, Derivation and Interpretation of Confidence Interval.

18 Sep to 23 Sep	Functional form of Regression Model.
25 Sep to 30 Sep	Heteroscedasticity - Meaning, Sources, Estimation, Consequences, Detection & Remedial Measures.
3 Oct to 7 Oct	Multicollinearity - Meaning, Sources, estimation, Consequences, Detection & Remedial measures.
9 Oct to 14 Oct	Autocorrelation - Meaning, Sources, estimation, Consequences, Detection & Remedial measures.
16 Oct to 21 Oct	(GLS) Generalized least Square.
23 Oct to 28 Oct	Specification of Regression Variables, Error of Measurements.
30 Oct to 4 Nov	Dummy Variable: Use of Dummy Variables Slope Dummy Variable, The Chow Test.
6 Nov to 8 Nov	Simultaneous Equation Model: Simultaneous Dependence of Variables & Consequences, Simultaneous Bias, Hausman
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Problem of Identification, Rules of Identification: Order and Rank Conditions, Implications of the Identification State of Model.

Renu Nanya Parmar

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Amrita Vats / Dr Renu
Class with sem :	M.A. II, Sem.-3
Subject / Paper :-	International Economics.

Week	Topics
25 Jul to 29 Jul	Theory of Absolute Advantage, Comparative Advantage and Opportunity Costs.
31 Jul to 5 Aug	Heckshar Ohlin Theory of Trade and its empirical testing (Leontiff Paradox)
7 Aug to 12 Aug	Factor Price Equalization theorem, Intra-Industry Trade :- Introduction.
14 Aug to 19 Aug	Intra-Industry Trade :- Concept, Reasons and Measurements.
21 Aug to 26 Aug	Product Cycle as Theory and Technology Gap Model.
28 Aug to 2 Sep	Measurement of Gains from Trade and their distribution, Concept of TOT.
4 Sep to 9 Sep	Concept of Terms of Trade :- its uses and limitations.
11 Sep to 16 Sep	Hypothesis of Secular Deterioration of terms of trade.

18 Sep to 23 Sep	Theory of Intervention (Tariffs, Quotas and Non Tariff) & Economic Effects of Tariffs.
25 Sep to 30 Sep	Stopler Samuelson Theorem, Optimum Rate of Itself :- measurement.
3 Oct to 7 Oct	Effective Rate of Protection, Balance of Payment.
9 Oct to 14 Oct	Process of Adjustment - Gold Standard (Species Flow Mechanism), Automatic Price Adjustment.
16 Oct to 21 Oct	Devaluation, Marshall-Lerner Cond., Keynesian Absorption Approach.
23 Oct to 28 Oct	J-Curve Effect, Foreign Trade Multiplier, IMF : Past, Present, Future.
30 Oct to 4 Nov	WTO, World Bank, SAARC, EU, Economic Integration; Theory of Custom Union
6 Nov to 8 Nov	Various forms of Economics Integration, Static & Dynamic Effects, House Exam
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of Whole Syllabus.

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Amitava Vats

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms PINKI / Dr Renu
Class with sem :	M.A. IInd year IIIrd Semester
Subject / Paper :-	Public Finance

Week	Topics
25 Jul to 29 Jul	Efficient Markets, Market faliure and Externalities, Positive and negative Externalities.
31 Jul to 5 Aug	Natural Monopolies and Market faliure, Natural monopolies in long run concept.
7 Aug to 12 Aug	Non Existence of future markets and Market faliure, How does a market system work.
14 Aug to 19 Aug	Asymmetric Information and Market faliure, Adverse slection and Moral Hazard.
21 Aug to 26 Aug	The problem of Externalities and their Internalisation, Imperfect Market, The Coase Theorm
28 Aug to 2 Sep	Theory of Public goods and Public Choice, Characteristics of Public and Private goods.
4 Sep to 9 Sep	Public Goods - Characteristics, Types and efficient provision of Public Goods
11 Sep to 16 Sep	Private Provision of Pure Public Goods, Bowen Model, Samuel-son Theory

18 Sep to 23 Sep	Lindahl – Wicksell Mechanism, Theory of Club goods, Public Choice concept
25 Sep to 30 Sep	Taxation – meaning and Classification, Major defects in the structure of Indirect taxes Prior to GST
3 Oct to 7 Oct	Rational for GST, structure of GST (SGST, CGST, UTGST, IGST)
9 Oct to 14 Oct	GST – Meaning, Definition and effects, GST Council.
16 Oct to 21 Oct	GST Network, State Compensation Mechanism
23 Oct to 28 Oct	Public Expenditure – meaning and Classification, objectives and advantages of Public Expenditure
30 Oct to 4 Nov	Public Expenditure: Wisemen peacock Hypothesis, Public debt:- objectives and sources.
6 Nov to 8 Nov	Classification and effects of Public debt, Finance commission of India. House Exams
9 Nov to 16 Nov	Budget : Diwali Vacation
17 Nov to 24 Nov	Budget: Definitions and Types, Theories of Budget

Renu Pinki.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. PINKI / Dr Renu
Class with sem :	M.A. IInd year IIIrd sem
Subject / Paper :-	Rural Development

Week	Topics
25 Jul to 29 Jul	Rural Institutions and Infrastru-cture, Concept and nature of Rural Development.
31 Jul to 5 Aug	Indicators of Rural Development Characteristics and significance of Rural Development.
7 Aug to 12 Aug	Panchayati Raj, Institutions and village co-operatives of Panchayati Raj
14 Aug to 19 Aug	Grender Issues and rural devel-opment In India, Rural Sector and Rural Infrastructure in India.
21 Aug to 26 Aug	Rural Poverty and Disparities in rural development, Rural Develop-ent in five year plans.
28 Aug to 2 Sep	Rural Poverty, Nature and Causes of Inter state disparities in rural development.
4 Sep to 9 Sep	Consequences and Remedial meas-ures of Inter-state of rural development.
11 Sep to 16 Sep	Nature and Causes of Rural-urban Disparities in living standards

18 Sep to 23 Sep	Consequence & Remedial measures of Rural-urban Disparities in living standards
25 Sep to 30 Sep	Emerging Issues & Approach to rural development, Food securities and PDS
3 Oct to 7 Oct	PDS: Problem and Offectives, Remedial Measures of Food securities.
9 Oct to 14 Oct	Nurksian Approach, Cluster approach to rural development, Comparision these approach.
16 Oct to 21 Oct	Ghandhian approach on rural development, Strategies & Planing for rural development.
23 Oct to 28 Oct	Alternatives in rural development, Dairying and Poultry Farm,
30 Oct to 4 Nov	Role of Non-Government organisation In India, Appraisal of Rural development In India
6 Nov to 8 Nov	The role scope and prospects of Rural Non-farm enterprises. House Exams
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Policy and Allocation under plans for rural development, Appraisal of Rural development in india since independence.

Rewa Pinkal

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms Mainka
Class with sem :	M.A. final (English) Sem – III
Subject / Paper :-	Literature & Gender

Week	Topics
25 Jul to 29 Jul	Introduction to syllabus and examination Pattern. Basic familiarity with feministic terms: Gender, feminism, feminist, female, subaltern, otherization, patriarchy,
31 Jul to 5 Aug	oppression, female space, feminine, Gynocriticism, subjection, ~~actor~~ acriture, Gender Equality, liberation, Emancipation, New Woman, LGBT, Identity.
7 Aug to 12 Aug	Detailed discussion of waves of feminism - first wave, second wave, third wave. Other Movements of feminists.
14 Aug to 19 Aug	Introduction of Virginia Woolf – her life and literary contribution.
21 Aug to 26 Aug	Detailed study of 'A Room of one's own' chapter 1,2.
28 Aug to 2 Sep	chapter – 3,4 of 'A room of one's own!
4 Sep to 9 Sep	chapter 5,6 of 'A room of one's own'. Discussion of short & long questions of 'A room of one's own'.
11 Sep to 16 Sep	Introduction of Bronte Sisters with main focus on Charlotte Bronte. Life and literary contribution of Charlotte Bronte.

18 Sep to 23 Sep	Detailed Study of 'Jane Eyre' stat Analysis of 'Jane Eyre'.
25 Sep to 30 Sep	Introduction of Jean Rhys – life and literary contribution.
3 Oct to 7 Oct	Detailed Study of 'Wide Sargasso Sea'
9 Oct to 14 Oct	Stylistic analysis of 'Wide Sargasso Sea'
16 Oct to 21 Oct	Discussion of Short & long questions of 'Wide Sargasso Sea'
23 Oct to 28 Oct	Doubt removal classes and Revision of Unit 1 & 2.
30 Oct to 4 Nov	Doubt removal classes and revision of Unit 3 & 4.
6 Nov to 8 Nov	
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mrs. Mainbar
Class with sem :	M.A. Final (English) 3rd Sem.
Subject / Paper :-	English Drama - II

Week	Topics
25 Jul to 29 Jul	Introduction and basic familiarity with the paper.
31 Jul to 5 Aug	Introduction to the syllabus and the examination scheme. Explaining the socio-political conditions of Drama of the relevant period.
7 Aug to 12 Aug	Introduction to the writer 'Arthur Miller.' Explaining the plot and characters of the play
14 Aug to 19 Aug	Textual study of the play. Discussion about the major themes of the Play.
21 Aug to 26 Aug	Discussion on long Questions. Home assignment, Doubt removal class, Test.
28 Aug to 2 Sep	Introduction to 'Samual Becket' Explaining the Plot and characters of the play.
4 Sep to 9 Sep	Textual Reading of the play with critical analysis.
11 Sep to 16 Sep	Discussion on major themes of the play. Discussion on long Questions

18 Sep to 23 Sep	Doubt removal class, home assignment, class test of unit - II.
25 Sep to 30 Sep	Revision and Test. Introduction to 'John Osborne'.
3 Oct to 7 Oct	Introduction to the plot and characters of the play. Textual reading of the play.
9 Oct to 14 Oct	Discussion on major themes of the play. Discussion on long questions.
16 Oct to 21 Oct	Doubt removal classes. Revision class, test of Unit - I
23 Oct to 28 Oct	Revision and Test of unit 2
30 Oct to 4 Nov	Revision and Test of unit - 3
6 Nov to 8 Nov	Revision and Test of unit 4
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mrs. Manika
Class with sem :	M.A Final 3rd Sem
Subject / Paper :-	Post-colonial studies

Week	Topics
25 Jul to 29 Jul	Introduction and basic familiarity with the paper.
31 Jul to 5 Aug	Introduction to the syllabus and E.S., Basic familiarities with the terms related to the relevant period.
7 Aug to 12 Aug	Introduction to the writer 'Aphra Behn'. Explanation of the plot and characters of the novel. Literary term :- Colonialism/P.C.
14 Aug to 19 Aug	Literary term :- Diaspora and Ethnicity Reading of the important parts of the novel.
21 Aug to 26 Aug	Textual reading continued. Discussion on Questions based on the novel.
28 Aug to 2 Sep	Home Assignments, Doubt removal class, test of unit 1
4 Sep to 9 Sep	Introduction to 'Joseph Conrad' Explaining Plot and Characters of the novel.
11 Sep to 16 Sep	Textual study of the important parts of the novel. Literary terms :- Alterity, Hybridity, Hegemony and Identity.

18 Sep to 23 Sep	Explanation of themes of the novel, Discussion on important long questions based on the novel.
25 Sep to 30 Sep	Doubt removal classes, home assignment and test of unit 2. Literary terms :- Ideology, Orientalism, culture
3 Oct to 7 Oct	Introduction to 'Salman Rushdie', Discussion on plot and characters of the novel. Textual study of the imp. Parts of novel
9 Oct to 14 Oct	Textual study continued. Discussion on important themes and long Questions of the novel.
16 Oct to 21 Oct	Doubt class, home assignment and Test. Literary terms :- Metanarratives, Mapping, Mimicry, Nation, Nation-state, Subaltern.
23 Oct to 28 Oct	Literary terms :- Alienation, Assimilation, Place and Displacement, Syncriticity, Appropriation, Abrogation.
30 Oct to 4 Nov	Doubt removal class, Home Assignment and Test.
6 Nov to 8 Nov	Revision.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms Mainka
Class with sem :	M.A. English Final Year - 3rd Sem.
Subject / Paper :-	English Poetry - III

Week	Topics
25 Jul to 29 Jul	Introduction and basic familiarity with the syllabus.
31 Jul to 5 Aug	Introduction to the syllabus and discussion of examination pattern. Discussion of Victorian Age and Socio - Political conditions of the age.
7 Aug to 12 Aug	Literary terms and literary features of Victorian Age. Doubt removal class and test of Unit - 1
14 Aug to 19 Aug	Introduction to Robert Browning & his life and his literary contribution. Explanation of "My Last Duches" and Discussion on its Q.&Ans.
21 Aug to 26 Aug	Explanation of "Rabbi Ben Ezra" and Discussion on its que-Ans.
28 Aug to 2 Sep	Explaration of "Fra Lippo Lippi", Discussion on its que-ans, Revision of the poems. Test based on the poems.
4 Sep to 9 Sep	Introduction to Mathew Arnold, his life and his literary contribution, Explanation of "The Scholar Gypsy"
11 Sep to 16 Sep	Discussion on its que-ans, Explanation of the poem "Thyrsis" and discussion on its que-answers

18 Sep to 23 Sep	Test based on Mathew Arnold's Poems Discussion of short and long questions of the poetry of 'Robert Browning' and M.A.
25 Sep to 30 Sep	Detailed Discussion of Modern Age and its socio-political and economic conditions, literary terms and literary features of Modern Age
3 Oct to 7 Oct	Intoduction to T.S. Eliot his life and his literary contribution, Explanation of the poem "The Wasteland" - Ch-1,2.
9 Oct to 14 Oct	Explanation continued from 3 to 5 chapters of the poem 'The Wasteland', Revision and Test of the poem.
16 Oct to 21 Oct	Introduction to W.H. Auden - his life and life contribution, Explanation of the poem "Partition" "The Shield of Archilles"
23 Oct to 28 Oct	Explanation of the poem "The memory of W.B. Yeats", Discussion of short and long ques. on poetry of W.H. Auden, Introduction to W.B. Yeats his life and life contri.
30 Oct to 4 Nov	Detailed study of the "The Second coming", "Sailing to Byzantium", "A Prayer for my Daughter", Discussion of short and long questions of W.B. Yeats Poetry
6 Nov to 8 Nov	Doubt removal classes and removal classes and revision classes.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mrs. Priyanka
Class with sem :	M.A. Final (English) 3rd Sem
Subject / Paper :-	English Fiction - II

Week	Topics
25 Jul to 29 Jul	Introduction and basic familiarity with the paper.
31 Jul to 5 Aug	Introduction to the syllabus and examination scheme. Explanation of Socio-Political conditions of the relevant period.
7 Aug to 12 Aug	Introduction to Literary Terms of the relevant Period.
14 Aug to 19 Aug	Doubt removal class, Assignment Terms of the relevant Period.
21 Aug to 26 Aug	Introduction to 'Charles Dickens' Explanation of plot and characters of the novel.
28 Aug to 2 Sep	Reading of the important parts of the novel.
4 Sep to 9 Sep	Reading continued with critical anglysis, explanation of themes of the novel. Discussion on long Questions based on the novel.
11 Sep to 16 Sep	Doubt removal class, home assignment and test of unit - 2.

18 Sep to 23 Sep	Introduction to 'Thomas Hardy', explanation of plot and characters of the novel, Reading of the important parts, themes and c.a.
25 Sep to 30 Sep	Doubt removal class, home assignment, test of unit-3
3 Oct to 7 Oct	Introduction to 'D.H. Lawrence'. Explanation of plot, character, important parts, themes and long questions based on the novel.
9 Oct to 14 Oct	Doubt removal class, home assignment, Test of unit-4.
16 Oct to 21 Oct	Doubt removal classes, revision and test of unit-1.
23 Oct to 28 Oct	Doubt removal classes, revision and test of unit-2 and 3.
30 Oct to 4 Nov	Doubt removal classes, revision and test of unit-4.
6 Nov to 8 Nov	P. P. T. Presentation.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mrs. Meenakshi
Class with sem :	M.A. (Final) 3rd Sem (English)
Subject / Paper :-	Literary Theory and Criticism -II

Week	Topics
25 Jul to 29 Jul	Introduction of the paper and discussion of scheme of examination. Introduction to literary theory & critism. Introduction of emerging trends of literary theory.
31 Jul to 5 Aug	Discussion about basic critical terms of different theories. Introduction of structuralism, detailed study of semiotics. Introduction of 'ferdinand De Saussure'.
7 Aug to 12 Aug	Detailed study of Sign, Signifier, signified. Textual reading of 'Nature of linguistic Sign' with its critical analysis. Introduction of Roland Barthes.
14 Aug to 19 Aug	Introduction of 'The death of the author' Continue reading of 'The death of the author.'
21 Aug to 26 Aug	Introduction about feminism and and its different ways. Introduction to 'Simone de Beavoir'. critical introducting about 'The Second Sex' Book
28 Aug to 2 Sep	Textual reading of 'The Second Sex' (Introduction) Part trans. by H.M. Parshley.
4 Sep to 9 Sep	Introduction to 'Elaine Showalter' critical introduction about 'feminist criticism in wilderness'.
11 Sep to 16 Sep	Textual reading of 'feminist Criticism' in Wilderness.

18 Sep to 23 Sep	Introduction about Post-Structyralism and its pioneer critics, Introduction about differences and it's pioneer critics
25 Sep to 30 Sep	critical discussion about deconstruction theory. Discussion about Postmodernism Pioneer critics.
3 Oct to 7 Oct	Introduction to 'Edward Said' critical discussion about 'Introduction to Orientalism'.
9 Oct to 14 Oct	Textual reading of 'Introduction to orientalism'
16 Oct to 21 Oct	Introduction to 'Jacques Derrida' critical discussion about 'Letter to a Japanese friend'.
23 Oct to 28 Oct	Textual reading of 'Jacques Derrida' and 'A Letter to a Japanese friend', Discussion about its question & Answer
30 Oct to 4 Nov	Doubt removal class, Home assignment, class test.
6 Nov to 8 Nov	Revision class, Class Test
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision classes. Doubt removal classes.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Minakshi
Class with sem :	Inorganic chemistry special - III - M.sc final IIIrd sem
Subject / Paper :-	Inorganic chemistry special - III

Week	Topics
25 Jul to 29 Jul	—
31 Jul to 5 Aug	—
7 Aug to 12 Aug	—
14 Aug to 19 Aug	—
21 Aug to 26 Aug	—
28 Aug to 2 Sep	—
4 Sep to 9 Sep	—
11 Sep to 16 Sep	—

18 Sep to 23 Sep	—
25 Sep to 30 Sep	—
3 Oct to 7 Oct	Unit - I Inorganic polymers → classification of types of inorganic polymers, comparison with organic polymers, Boron-nitrogen polymers, silicones, co-ordination polymers - phosphonitrogen polymers. / Non-aqueous solvent → Reaction in non-aqueous media w.r.t H_2SO_4, BrF_3, N_2O_4 & phosphorus chloride, kinetics Mechanism of coordination rxn in non-aqueous media
9 Oct to 14 Oct	Unit - II Isopoly & heteropoly acids & salts of Mo & W structure of isopoly & heteropoly anions Basics of photochemistry → Absorption excitation, photochemical laws Quantum yield electronically excited states lifetime flash photolysis. Energy dissipation by radiative & non-radiative, absorption spectra, basic concepts & principles of fluorescence & sensitized fluorescence
16 Oct to 21 Oct	Unit - III Sewage & Fertilizers → sewage treatment, Biochemistry of sewage fertilizers, nitrogen, ammonification, nitrification, denitrification, fixation of nitrogen, nitrogen, phosphorus fertilizers in agriculture, Surfactants, cationic anionic non ionic. specific properties degradation Test of Unit - I
23 Oct to 28 Oct	Toxicology → definition of toxicology, its history, scope & its literature dose-response relationship. Absorption distribution, toxicity of metal ion Pb, Hg, Al, Ni, As organic toxicants such as halogenated hydrocarbons, chemical carcinogenesis Assignment
30 Oct to 4 Nov	Unit - 4 Nuclear chemistry → fundamental particles of nucleus concept of nuclei, representation of nuclei, Isobars Isotopes specific examples. The size concept of nucleus & atom. The possible forces operating between (n-n, p-p) the magnitude of forces
6 Nov to 8 Nov	Unit - 4 Qualitative idea of the stability of nuclear $\frac{n}{p}$ ratio shell & liquid drop model, natural & artificial radioactivity disintegration series, Radioactive disintegration rate, half-life average life.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of whole syllabus

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Minakshi
Class with sem :	Msc final year sem-III
Subject / Paper :-	Inorganic chemistry special paper-III Practical

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	

18 Sep to 23 Sep	
25 Sep to 30 Sep	
3 Oct to 7 Oct	i) Determination of Pka value of an indicator spectrophotometrically
9 Oct to 14 Oct	2. Conductometrically - composition of weak and strong acid, precipitation and displacement titration
16 Oct to 21 Oct	3. PH metry - composition of mixture of strong & weak acid, pka value of organic acids
23 Oct to 28 Oct	4. Determination of concentration of sulphate ion in the given solution by turbidimetry. Any other techniques introduced time to time.
30 Oct to 4 Nov	Viva - voce
6 Nov to 8 Nov	Viva - voce
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Viva voce

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mst. Seema
Class with sem :	M.Sc II Sem III
Subject / Paper :-	Organic Chemistry Special practical VII

Week	Topics
25 Jul to 29 Jul	—
31 Jul to 5 Aug	—
7 Aug to 12 Aug	—
14 Aug to 19 Aug	—
21 Aug to 26 Aug	—
28 Aug to 2 Sep	—
4 Sep to 9 Sep	—
11 Sep to 16 Sep	—

18 Sep to 23 Sep	—
25 Sep to 30 Sep	—
3 Oct to 7 Oct	Separation & Identification of organic mixture of polyfunctional compounds containing two Solid - Solid component
9 Oct to 14 Oct	Separation & Identification of organic mixture of poly functional compounds containing two Solid - liquid and solid-solid,
16 Oct to 21 Oct	Separation & Identification of organic mixture of polyfunctional compounds containing two liquid-liquid and solid - liquid.
23 Oct to 28 Oct	Separation & Identification of organic mixture of polyfunctional compounds containing two liquid-liquid & solid - liquid.
30 Oct to 4 Nov	checking the purity of Individual component using TLC.
6 Nov to 8 Nov	checking the purity of Individual components using IR, NMR techniques used for functional gp. detection.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Viva - Voce

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Mrs. Seema
Class with sem :	M.Sc II (Sem III)
Subject / Paper :-	Organic Chemistry Special I

Week	Topics
25 Jul to 29 Jul	—
31 Jul to 5 Aug	—
7 Aug to 12 Aug	—
14 Aug to 19 Aug	—
21 Aug to 26 Aug	—
28 Aug to 2 Sep	—
4 Sep to 9 Sep	—
11 Sep to 16 Sep	—

18 Sep to 23 Sep	—
25 Sep to 30 Sep	—
2 Oct to 7 Oct	Pericyclic Rx-I - Molecular orbital symmetry, Frontier molecular orbital of ethylene, 1,3-butadiene, 1,3,5 hexatriene & allyl system classification of pericyclic rxn, Woodward-Hoffmann correlation diagram, FMO & PMO approach, Electrocyclic rxn-conrotatory & disrotatory motions, 4n, 4n+2, allyl systems, Ring opening of cyclopropyl halides & tosylates, cycloadditions - antarafacial & suprafacial additions, 4n & 4n+2 systems, 2+2 addition of ketenes, 1,3-dipolar cycloadditions and cheletropic Rx.
9 Oct to 14 Oct	Pericyclic Rxn II - Sigmatropic rearrangements - suprafacial & antarafacial shifts of H, sigmatropic shifts involving carbon moieties, retention & inversion of configuration, [3,3] & [5,5] sigmatropic rearrangements, detailed treatment of Sommelet-Hauser, claisen & cope rearrangements; introduction to ene rxn. Simple problem on Pericyclic rxn, Group transfers & elimination,
16 Oct to 21 Oct	Photochemistry I: Excitation & excited states, Franck-Condon Principle, Jablonski diagram, energy transfer photosensitization, quenching, quantum efficiency and quantum yield. Photochemistry of carbonyl comp. Norrish type I and type II changes, photoreaction & cyclic ketones, Paterno-Buchi rxn and photoreduction, protoch -emistry of olefins and 1,3-Butadiene (cis-trans isomerisation, dimerisation and cycloadditions). [Test]
23 Oct to 28 Oct	
30 Oct to 4 Nov	Photochemistry II: Di-π-methane rearrangement, enone & dienone rearrangements, photochemistry of aromatic compounds (substitution, isomerization, cyclization & cycloaddition rxn) photo-Fries rearrangement, photolysis of nitrite esters & Barton rxn, Hoffman-Loeffler-Freytag rxn, synthesis of vitamin D. [Assignment]
6 Nov to 8 Nov	
9 Nov to 15 Nov	Diwali Vacation
17 Nov to 24 Nov	[Revision of complete syllabus]

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Pooja Sharma
Class with sem :	M.Sc IInd (III sem)
Subject / Paper :-	Spectroscopy - II

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Rotational Spectra: Introduction, rotational spectra of rigid diatomic molecules, intensities of rotational spectral lines, isotopic effect, non-rigid rotator, spectra of polyatomic linear molecules and symmetric top molecules Vibrational and Vibrational-Rotational Spectra: The vibrating diatomic molecule

18 Sep to 23 Sep	Force constant, zero point energy, simple harmonic vibrator, anharmonicity, Morse potential, overtones, hot bands, P, Q, R branches normal mode of vibrations breakdown of Born oppenheimer approximation interaction of rotation and vibration, vibration of polyatomic molecules, analysis by infra red technique.
25 Sep to 30 Sep	Raman Spectra: classical and quantum theories, polarization of light and the Raman effect, depolarization of Raman lines, pure rotational Raman spectra of linear molecules, vibrational Raman spectra, mutual exclusion principle, structure determination for Raman and infrared spectroscopy.
3 Oct to 7 Oct	Use of symmetry (Group theory) to determine selection rules and number of active infrared and Raman lines in the spectra. Electronic spectra: Electronic spectra of diatomic molecules, vibrational coarse structure and rotational fine structure of electronic bands. The Franck condon Principle, intensity of vibrational electronic band dissociation energy
9 Oct to 14 Oct	Electron Spin Resonance Spectroscopy Basic principles of ESR, experimental technique, the g-value hyperfine structure, Instrumentation of ESR and its application to the study of free radicals and fast reactions Spin densities and Mc Connell relationship
16 Oct to 21 Oct	Mossbauer Spectroscopy: Basic principles, spectral parameters and spectrum display Application of the technique to the studies of (1) bonding and structures of Fe^{2+} and Fe^{3+} compounds including those of intermediate spin (2) Sn^{2+} and Sn^{4+} compounds - nature of M-L bond, coordination number, structure and (3) detection of oxidation state
23 Oct to 28 Oct	Atomic Absorption Spectroscopy: Introduction to Atomic Absorption spectroscopy, basic principles, resonance line, its natural width, Doppler effect, broadening due to pressure, Hollow cathode lamp Application to alkali and alkaline earth metals.
30 Oct to 4 Nov	Flame photometry: Theory of flame photometry, flame temperature Emission flame photometry - intensity of spectral lines, selection of optimum working conditions, application of flame photometry in trace metal analysis Assignment on Mossbauer spectroscopy
6 Nov to 8 Nov	Spectrophotometry and colorimetry: Fundamental concepts, instrumentation for absorption measurements interferences, application of absorption spectroscopy and colorimetry to analysis of inorganic substance Test of Raman Spectroscopy.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of full syllabus

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	JYOTIKA
Class with sem :	M.Sc (3rd) II sem.
Subject / Paper :-	Organotransition Metal Chemistry.

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Introduction and classification of organo-metallic compounds by bond types viz. covalent, ionic, electron deficient and cluter compounds.

18 Sep to 23 Sep	Types, routes of synthesis, stability & decomposition pathways, organocopper in Organic synthesis, fluxional Organometllic comp.
25 Sep to 30 Sep	Fluxionality and dynamic equilibria in comp. such as η^2-olefin- η^3-allyl and dienyl complexes. Carbonyl scrambling.
3 Oct to 7 Oct	Unit II- Transition metal π- complexes with unsaturated Organic molecule, alkenes, alkyenes, allyl, diene, dienyl, arenes, trienyl complexes, preperations.
9 Oct to 14 Oct	Properties, nature of bonding and structural features, Important reactions relating to nucleophilic and electrophilic attack on ligand and to organic synthesis.
16 Oct to 21 Oct	Alkyldienes, alkyldynes, low valent carbenes, and carbynes synthesis. Revision of Unit I & II.
23 Oct to 28 Oct	Unit III Nature of bond, structural characteristics, nucelophilic and electrophilic reactions on the ligand.
30 Oct to 4 Nov	Role in organic synthesis, Transition Metal Compounds with Bonds to hydrogen.
6 Nov to 8 Nov	Stoichiometric reactions for catalysis, homogeneous catalytic hydrogenation, hydrocyanation, hydrosilyation.
9 Nov to 16 Nov	Assignment on:- hydroformylation, Diwali Vacation Methanol Carbonylation and olefin oxidation - Monsanto and Cativa process Ziglex.-Natta polymerisation of olefins.
17 Nov to 24 Nov	Catalytic reactions involving carbon. Revision of Unit III & Unit IV.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Jyoti K A.
Class with sem :	M.Sc II (3rd Sem).
Subject / Paper :-	Inorganic chemistry special – Instrumental Techniques – I.

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Electroanalytical methods of Analysis – I Electrochemical Reactions, general principles, Diffusion Current, Dropping Mercury electrode, Ilkovic equation (without proof), Koutecky equation for Diffusion Current, Half wave potential

18 Sep to 23 Sep	Polarographic waves (Anodic & Cathodic), Conditions for performing polarographic determinations, Oxygen interference, Maxima, Function of supporting electrolyte, determination of stability constant
25 Sep to 30 Sep	of complexes (Reversible systems only) by D.C. polarography, catalytic Hydrogen waves. Unit – II :- Electroanalytical Methods of Analysis II :- Principles of
3 Oct to 7 Oct	Amperometric titrations, Types of Titration curves, apparatus & techniques, Superimposed a.c. polarography, voltametry in quiet & stirred solution with electrode other than Mercury, Square wave polarography,
9 Oct to 14 Oct	normal & differential pulse polarography, chronopotentiometry, chronoamperometry & coulometry Theory of anodic stripping voltametry, Cathodic stripping voltametry.
16 Oct to 21 Oct	Unit III :- Chromatography :- general principles, Types of chromatography, absorption chromatography, partition chromatography, vapour phase chromatography, paper, thin layer chromatography. Ion-exchange
23 Oct to 28 Oct	general principles, ion exchangers - natural & Synthetic, ion-exchange capacity. Ion selective electrodes : Fundamental types of electrodes, gas sensors, ion sensors, enzyme electrodes,
30 Oct to 4 Nov	principle involved in measurements with ion selective electrodes with special Reference to halide, sulphide & oxygen electrodes.
6 Nov to 8 Nov	Unit IV :- Thermal Techniques :- Thermogravimetry, DTA, Differential Scanning Techniques principles & Applications. Nephelometry
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Turbidimetry, factors Affecting Measurement, instrumentation & Applications Revision of Unit I, II [III & IV]

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Simaran
Class with sem :	M.Sc. IInd year (3rd Sem)
Subject / Paper :-	Chemistry

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Estimation of Glucose

18 Sep to 23 Sep	Estimation of Phenol by brominating mixture
25 Sep to 30 Sep	Estimation of glycine
3 Oct to 7 Oct	Estimation of formaldehyde
9 Oct to 14 Oct	Estimation of Cane-sugar
16 Oct to 21 Oct	Estimation of No. of acetyl group
23 Oct to 28 Oct	Estimation of Saponification value of a fat or oil
30 Oct to 4 Nov	Estimation of Iodine Value of a fat or oil
6 Nov to 8 Nov	Revision
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Viva - Voce

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Jyotika
Class with sem :	MSc II (3rd sem)
Subject / Paper :-	Inorganic Chemistry-special.

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Synthesis of Inorganic Complexes/ Compounds. (i) Metal acetylacetonates - eg $VO(acac)_2$, $Cr(acac)_3$.

18 Sep to 23 Sep	(ii) $[Co(NH_3)_5Cl]Cl_2$, $[Co(NH_3)_5NO_2]Cl_2$
25 Sep to 30 Sep	$Ni(dmg)_2$ $[Ni(en)_3]S_2O_3$.
3 Oct to 7 Oct	$[Ni(NH_3)_6]Cl_2$.
9 Oct to 14 Oct	Metal Complexes of dimethylsulfoxide. $CuCl_2.2DMSO$
16 Oct to 21 Oct	Revision of Practical Questions
23 Oct to 28 Oct	Revision of Metal acetylacetonates.
30 Oct to 4 Nov	Preparation of Copper glycine – cis and Trans bis(glycinato) Cu(II).
6 Nov to 8 Nov	Revision →
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision →

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	JYOTIKA
Class with sem :	M.Sc - II (3rd Sem.)
Subject / Paper :-	Inorganic Practical

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Spectral studies of some Inorganic Compounds :- ① Tris (acetyl - acetonato) Mn (III)

18 Sep to 23 Sep	Revision of Viva Questions
25 Sep to 30 Sep	(iii) Tris (acetyl- acetonato) Cobaltate (III)
3 Oct to 7 Oct	Revision of Viva Questions
9 Oct to 14 Oct	(iv) Ferrocene [spectral studies]
16 Oct to 21 Oct	Revision ⟶
23 Oct to 28 Oct	(v) Tris thiourea Copper (I) sulphate
30 Oct to 4 Nov	Revision ⟶
6 Nov to 8 Nov	(vi) Tris (acetylacetonato) Cr(III)
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision ⟶

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Simaran
Class with sem :	M Sc IInd year (3rd Sem.)
Subject / Paper :-	Organic Chemistry - Paper - II

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
11 Sep to 16 Sep	Oxidation reagents : Principle, reactions and mechanics of following oxidising agents : Manganese oxidants - $KMnO_4$, MnO_2; chromium oxidants - Chromic acid, PCC, PDC, Collins & Jones reagent, Peracids and Peroxides.

18 Sep to 23 Sep	Miscellaneous oxidants - Oxygen, Ozone, Lead tetra-acetate, Selenium dioxide, OsO_4, Periodic acid, Silver Carbonate (Fetizons reagent), Thallium nitrate, Woodward and Prevost reagents
25 Sep to 30 Sep	Reduction reagents: Principle, reactions and mechanism of following reducing agents: PtO_2 (Adam's catalyst), $Pd/CaCO_3$ (Lindlar's catalyst), $Pd/BaSO_4$, Raney Ni, $NaBH_4/CeCl_3$ (Luche reagent) Test - Unit 1 Oxidation reagents
3 Oct to 7 Oct	$NaBH_3CN$, $NaBH(OAc)_3$, $LiAlH(OR)_3$, $LiBH_4$, DIBAL-H, Sodium - liquid ammonia, Sodium alcohol, Zinc hydrochloric acid, hydrazine, dilmide, silanes, stannous chloride, selectrides (K and L) Assignment on Organo metallic reagent.
9 Oct to 14 Oct	Organometallic reagents: Preparation, properties and applications of following reagents in organic synthesis with mechanistic details. Lithium cuprates (Gillman's reagent), organoidines, organosulphur reagent (1,3-dithiane)
16 Oct to 21 Oct	Organosilicon reagent (trimethylsilyliodide TMSI), organocadmium, organotin (tributyltin)hydride TBTH), organozirconium (Swartz reagent), Organotitanium (Tebbe olefination)
23 Oct to 28 Oct	Other reagents in organic synthesis: Principle, preparations, properties and application of the following in organic synthesis with mechanistic detail - DDQ, DDC
30 Oct to 4 Nov	IBX, NBS, LDA, DABCO, TEMPO, Metal mediated C-C and C-X coupling reactions: Heck, Stille, Suzuki, Negishi and Sonogashira.
6 Nov to 8 Nov	Revise Unit - 1 and 2
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revise Unit - 3 and 4

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Tanya
Class with sem :	Msc IInd (IIIrd sem)
Subject / Paper :-	19CHE-310: Organic Chemistry Special - III

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	Green chemistry I :- Principle of Green chemistry and its application: Basic Principle and need of green chemistry, Different tools for green synthesis
28 Aug to 2 Sep	Elementary idea of green reagent, green solvent, green catalyst, atom economy. Role of biocatalyst in green synthesis.
4 Sep to 9 Sep	Enzyme catalysed oxidation, reduction and hydrolytic reactions, synthesis involving basic principle of green chemistry - synthesis of adipic acid and BHC synthesis of Ibuprofen, Principles of ultra sound and microwave assisted organic synthesis
11 Sep to 16 Sep	Green chemistry II :- Renewable energy resources, fossil fuels, biomass, solar polaver, fuel cell, chemical from renewable feed stocks.

18 Sep to 23 Sep	fatty acids, polymer from renewable resources, some other chemicals from natural resource. Test of unit I
25 Sep to 30 Sep	Waste management: production, problem and prevention - introduction, source of waste from chemical industry, waste minimization techniques onsite waste treatment, design, degradation of DDT
3 Oct to 7 Oct	Surfactant, polymer recycling. Assignment on High Performance liquid chromatography chromatography:- Types, ion exchange chromatography, planar chromatography - Paper & Thin Layer Chromatography
9 Oct to 14 Oct	Stationary & Mobile phase, Gas-Chromatography - Theory, instrumentation and applications Test of unit II Presentation
16 Oct to 21 Oct	Liquid Liquid partition chromatography, High Performance liquid chromatography (HPLC) Reverse Phase chromatography, Hyphenated techniques - GCMS and LCMS
23 Oct to 28 Oct	Computational chemistry:- Introduction, history, approximations to schrödinger equation, basic idea of Hartree-Fock method, electron correlation - post Hartree-Fock methods, density functional theory,
30 Oct to 4 Nov	computational approaches to solvation, application of these methods in computation of spectral properties and structure identification, fundamentals of organic chemistry, pericyclic reactions, diradicals and carbenes, organic reaction of anions, solution phase chemistry, reaction dynamics & understanding enzyme properties. Revision of Units I & II
6 Nov to 8 Nov	
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of unit III & IV Revision of full syllabus

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms Tanya
Class with sem :	MSc IInd (IIIrd sem)
Subject / Paper :-	19CHE-319 Practical - IX

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	To prepare benzanilide from benzophenone
28 Aug to 2 Sep	——do——
4 Sep to 9 Sep	To prepare benzopinacolone from benzophenone by multistep reaction synthesis
11 Sep to 16 Sep	——do——

18 Sep to 23 Sep	To prepare benzilic acid from benzoin
25 Sep to 30 Sep	——— do ———
3 Oct to 7 Oct	To prepare caprolactone from cyclohexanone
9 Oct to 14 Oct	——— do ———
16 Oct to 21 Oct	To prepare p-nitro benzanilide from benzophenone
23 Oct to 28 Oct	——— do ———
30 Oct to 4 Nov	To prepare anthranilic acid from phthalic acid
6 Nov to 8 Nov	——— do ———
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	—— Revision of syllabus ——

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Pinki / & Renu
Class with sem :	MSc II, Sem III
Subject / Paper :-	Environment & Energy Management

Week	Topics
25 Jul to 29 Jul	Introduction to Environment & Energy Management.
31 Jul to 5 Aug	Introduction to Environment and Pollution :- Types of Pollution-
7 Aug to 12 Aug	Air Pollution : Cause and Meaning.
14 Aug to 19 Aug	Air Pollution :- Risk Factors and its Solution
21 Aug to 26 Aug	Water Pollution :- Meaning, & Causes, Risk Factors and Solutions.
28 Aug to 2 Sep	Noise Pollution :- Meaning :, Causes, Risk Factors & Solutions-
4 Sep to 9 Sep	Soil Pollution :- Meaning, Causes, Risk Factors & Solutions-
11 Sep to 16 Sep	Thermal Pollution :- Meaning, Causes, Risk Factors & Solutions

18 Sep to 23 Sep	Meaning & Definition of Renewable Sources of Energy.
25 Sep to 30 Sep	Meaning & Definition of Non-Renewable Sources of Energy.
3 Oct to 7 Oct	Examples of Renewabe Sources of Energy.
9 Oct to 14 Oct	Examples of Non-Renewable Sources of Energy.
16 Oct to 21 Oct	Meaning of Energy Management and Systen.
23 Oct to 28 Oct	Meaning of Environment Management System.
30 Oct to 4 Nov	Energy Management System :- Flow Chart and Cycle.
6 Nov to 8 Nov	Environment Management System :- Flow Chart and Cycle., House Exam.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Revision of Whole Syllabus.

Renu Pinki

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Tamanna Tayal Gupta
Class with sem :	Msc (mathematics), 3rd Sem
Subject / Paper :-	Computing Lab - III

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	Basic mathematical computation, Comimand Window,
21 Aug to 26 Aug	Program to generate matrix with addition, Subtraction and multiplication of matrix, Solving System of Linear equations with two variables
28 Aug to 2 Sep	Program to use in built functions and Creating new function
4 Sep to 9 Sep	Plotting the graph of function of two variables, Program to Differentiate and Integrate
11 Sep to 16 Sep	Program to Study Interpolation and Regression, Program to Solve Fourier analysis.

18 Sep to 23 Sep	Program to solve Ordinary Differential Equations,
25 Sep to 30 Sep	To Plot Graph of various Functions like Sin x, cos x, etc,
3 Oct to 7 Oct	To Find Eigenvalues and Eigenvectors of given matrix,
9 Oct to 14 Oct	Solving polynomial equations with the method studied,
16 Oct to 21 Oct	Solving partial Differential equation, solving boundary value problems,
23 Oct to 28 Oct	Program to solve Newton's Bisection methods,
30 Oct to 4 Nov	Program to solve given optimization problem,
6 Nov to 8 Nov	Program to solve Euler's method, Runge-Kutta's methods of solving ODE
9 Nov to 16 Nov	Revision Diwali Vacation
17 Nov to 24 Nov	Revision

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Tamanna Tayal Gupta
Class with sem :	M. Sc. (mathematics), 3rd sem
Subject / Paper :-	MATLAB Programming

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	Introduction of matlab Features of matlab Matlab Window
21 Aug to 26 Aug	Command Window, workspace Command History, working with the matlab user Interface, Basic commands
28 Aug to 2 Sep	Assigning variables, Operations with variables, Data files and Data types, Character and String.
4 Sep to 9 Sep	Arrays and Vectors: Column Vectors Row Vectors
11 Sep to 16 Sep	Creating rows and column matrix, Matrix Operations, Finding transpose Determinant

18 Sep to 23 Sep	Inverse, Solving arithmetic equations, Operators and special characters,
25 Sep to 30 Sep	Mathematical and logical operators, Solving Polynomials equations.
3 Oct to 7 Oct	Loops and Conditional statements; if, if-else, Switch, Loop control: for, while, continue, break return
9 Oct to 14 Oct	Working with Script: Script file, M-file, executing files, Plotting: Plotting vector and matrix data
16 Oct to 21 Oct	Plot labelling, Curve Labelling, Creating 2D and 3D plots, Plotting multiple data sets, Specifying line styles and colors, Sub plots.
23 Oct to 28 Oct	Multiple plots in one figure. Functions: user defined functions, built in functions, function calling, types of functions,
30 Oct to 4 Nov	Matlab programming, Calculus, Numerical Integration and Differentiation, Linear Algebra
6 Nov to 8 Nov	Algebraic equations, Solving differential equations and ODE, Solving Limits, Transforms – Fourier, Laplace
9 Nov to 16 Nov	Rivision Diwali Vacation Test
17 Nov to 24 Nov	Rivision Test

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Seema
Class with sem :	M.Sc - II (Sem - III)
Subject / Paper :-	Operation Research Techniques

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	
28 Aug to 2 Sep	
4 Sep to 9 Sep	
~~11 Sep~~ 12 Sep to 16 Sep	Introduction to O.R.T. Basic definition origion and Scope of O.R.T. Basic of Linear Programming and its Problems.

16 Sep to 23 Sep	Graphical method and its problem Simplex method and its related Questions Big-M and Two phase method and Problem.
25 Sep to 30 Sep	Degeneracy, Duality in L.P Problem Discussion and Test.
3 Oct to 7 Oct	Transportation Problem, Basic terms for optimum sol^n by stepping stone and Modi method.
9 Oct to 14 Oct	Balanced, Unbalanced and degenerate problems Problem discussion. Assignment Problem Hungrain method and Question Based on it.
16 Oct to 21 Oct	Unbalanced problem, travelling Salesman problem, Crew assignment problems Problem Discussion and Test.
23 Oct to 28 Oct	Basic concept of Queuing theory. Birth-death eqn. Steady state sol^n. of markovian model. M|M|1 M|M|C, M|M|1|k & M|M|c|k models
30 Oct to 4 Nov	Problem & Test Inventory and its Basic terms. EOQ models with uniform demand
6 Nov to 8 Nov	EOQ Models with different rate of demands in different cycles. EOQ when shortages are allowed. Inventory with price breaks
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Problem discussion Revision Test

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Dipti
Class with sem :	MSc 3rd Sem (3rd Sem)
Subject / Paper :-	Mathematics / Mechanics of Solids - I

Week	Topics
25 Jul to 29 Jul	———
31 Jul to 5 Aug	———
7 Aug to 12 Aug	———
14 Aug to 19 Aug	———
21 Aug to 26 Aug	———
28 Aug to 2 Sep	———
4 Sep to 9 Sep	———
11 Sep to 16 Sep	Start Unit - I Introduction of Cartesian tensor and Cartesian tensors of different order. Properties of tensors - Symmetric and Skew - Symmetric tensors. Isotropic tensors of different orders

18 Sep to 23 Sep	Taking doubts. Tensor invariants. Eigen value and Eigen vectors of a second order tensor. Scalar vector, tensor fun^{n}'s, Gradient, Divergence and Curl of a tensor field, Complete Unit-1
25 Sep to 30 Sep	Start Unit-2. Introduction of stress, Stress vector, stress components, Cauchy eq^{n}'s for equilibrium, Stress tensor, Symmetry of stress tensor, Stress quadric of Cauchy, Principal stress and invariants.
3 Oct to 7 Oct	Test Unit-1. Maximum normal and shear stress Examples and theorems based on stresses, Taking doubts. Test Unit-2. Unit-3 Start Introduction of Analysis of Strain. Affine transformation.
9 Oct to 14 Oct	Infinitesimal affine transformations, Geometrical Interpretation of the components of Strain, Strain of quadric of Cauchy, Principal Strains and Invariants, General Infinitesimal deformation,
16 Oct to 21 Oct	Saint-Venant's eq^{n} of Compatibility. Taking doubts. Mohr's diagram. Finite deformation, Examples of uniform dilatation, Simple extension,
23 Oct to 28 Oct	Shearing Strain, Complete Unit-3, Taking doubts, Diwali Unit-4, Introduction of elasticity. Hooke's Law and its generalisation. Hooke's law in Medium with one plane of symmetry
30 Oct to 4 Nov	orthotropic and transversely isotropic Medium. Homogeneous Isotropic Media, Elastic Moduli for Isotropic Media. Equilibrium and dynamic eq^{n}. for an Isotropic elastic solid.
6 Nov to 8 Nov	Beltrami-Michell compatibility eq^{n}. Strain energy fun^{n}. Taking doubts, Clapeyron's Theorem. Saint Venant's principle (Statement only)
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Taking doubts. Test of Unit-1. Test of Unit-2

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Mohini
Class with sem :	M.Sc-II (Sem-III)
Subject / Paper :-	Discrete Mathematics

Week	Topics
25 Jul to 29 Jul	
31 Jul to 5 Aug	
7 Aug to 12 Aug	
14 Aug to 19 Aug	
21 Aug to 26 Aug	Graph Theory - Definition and basic function, Special Graph, Examples. Subgraph, Isomorphism of graphs, Walks, paths and circuits, Eulerian path and Circuits. Examples.
28 Aug to 2 Sep	Hamiltonian Circuits, Matrix representation of graphs, Planer graphs, colouring of Graphs. Problem Discussion,
4 Sep to 9 Sep	Directed Graphs, Trees, Isomorphism of Trees, Representation of Algebraic Expression by Binary Tree, Spanning Trees of Graphs, Examples.
11 Sep to 16 Sep	Shortest path problem, Minimal Spanning Tree, Cut sets, Tree Searching. Problem Discussion. Formal logic - statements Symbolic representation and Tautologies, Quantifiers, Predicates and Validity, Propositional logic, Examples.

18 Sep to 23 Sep	Pigeonhole Principal, Principal of Inclusion and Exclusion derangements, Lattice - Lattice as partially ordered set, their properties, lattices as Algebraic systems, Sublattice.
25 Sep to 30 Sep	Direct Products and Homomorphism, Some Special Lattice e.g. Complete, Complemented and Distributive lattice, Examples, Problem Discussion.
3 Oct to 7 Oct	Join-Irreducible elements, Atoms and Minterms, Boolean Algebra, Boolean Algebra as Lattice, Various Boolean Identities, The Switching Algebra, Examples.
9 Oct to 14 Oct	Boolean forms and their equivalence, MintermBoolean forms, sum of Products of canonical forms.
16 Oct to 21 Oct	Problem Discussion and Presentation of Unit-I, II.
23 Oct to 28 Oct	Minimization of Boolean function, Application of Boolean Algebra, Test, Problem Discussion.
30 Oct to 4 Nov	Presentation, Doubt Discussion.
6 Nov to 8 Nov	Application of Boolean Algebra to Switching Theory, The Karnaugh Map Method.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Problem Discussion, Final Test

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. ANJU RANI
Class with sem :	M.Sc. II (IIIrd Semester)
Subject / Paper :-	Differential Geometry

Week	Topics
25 Jul to 29 Jul	UNIT-I Introduction of curve, tangent Normal, Torsion, Principal normal,
31 Jul to 5 Aug	curvature, Binormal, Fundamental Planes, Serret-Frenet formula, locus of centre of curvature, taking doubts
7 Aug to 12 Aug	discussion - theorems, examples, doubts, test Unit I, Revision UNIT-II - Spherical curvature, Envelopes
14 Aug to 19 Aug	Revise Unit I and fundamental plane and taking doubts.
21 Aug to 26 Aug	Surfaces, Tangent plane, Envelope Characteristic, Edge of regression
28 Aug to 2 Sep	taking doubts, revision UNIT of revision, Test
4 Sep to 9 Sep	UNIT III Curvilinear Co-ordinates; First order magnitude and its examples
11 Sep to 16 Sep	Directions on a surface, Second Order magnitudes, Derivatives of Unit

18 Sep to 23 Sep	normal and its properties, Examples.
25 Sep to 30 Sep	UNIT – IV Principal directions and curvatures, and its examples
3 Oct to 7 Oct	Geodesics – Geodesics property Equation of geodesics and its
9 Oct to 14 Oct	properties and its examples and applications, Torsion of geodesic
16 Oct to 21 Oct	and its properties, examples Revise of Unit I and Test
23 Oct to 28 Oct	Revision of Unit – II, III
30 Oct to 4 Nov	Test and taking doubts Unit – IV taking Problems
6 Nov to 8 Nov	Discussion on topics which is related to Unit I, II
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	UNIT III & IV (Revision)

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr Indu Vashistha
Class with sem :	Msc 2nd yr (3rd sem)
Subject / Paper :-	E.D.

Week	Topics
25 Jul to 29 Jul	Poisson and Laplace eqn. Soln of Laplace eqn in Rectangular Co-ordinates and Spherical Co-ordinates, Electrostatic boundary Conditions
31 Jul to 5 Aug	Energy stored in Continuous Charge distribution. Multipole exp Potential at large distances, The monopole and dipole terms
7 Aug to 12 Aug	Electric field in Matter: Bound Current, Field inside dielectrics Electric displacement. Susceptibility and energy stored in dielectric
14 Aug to 19 Aug	Magnetic Vector Potential, Magnetostatic boundary Condition Multipole expansion of vector Potential Field of a Magnetized object.
21 Aug to 26 Aug	Unit-II : Faraday's laws, induced electric field, energy in Magnetic field, Maxwell's eqn in free Space and Matter,
28 Aug to 2 Sep	Charge and energy Conservation: Poynting's theorm, Newton's 3rd law in electrodynamics, Maxwell's Stress tensor, Conservation of Momentum
4 Sep to 9 Sep	Wave eqn, Electromagnetic wave in vacuum, Energy and Momentum of EM wave, EM wave in matter.
11 Sep to 16 Sep	Reflection and Refraction of Electromagnetic waves at a Plane interface b/w dielectrics.

18 Sep to 23 Sep	Fresnel Rel^n, Berewsters angle wave Propagation in Conducting Media.
25 Sep to 30 Sep	Potential formulations: Scalar and Vector Potential, Gauge transformations, Coulomb and Lorentz Gauge, Retarded Potential
3 Oct to 7 Oct	Lienard – Wiechert Potentials and field due to moving point charge
9 Oct to 14 Oct	Dipole radiation: Electric dipole radiation and Magnetic dipole radiations, Total Power radiated by Moving charges.
16 Oct to 21 Oct	The Special Theory of Relativity Lorentz Transformation and Basic kinematic results of special relativity
23 Oct to 28 Oct	Structure of- Space Time, Review of four Vectors and Lorntz transformation in four dimen.
30 Oct to 4 Nov	Mathematical Properties of Space – time Review of four Vectors and Lorntz transformation in four dimensional.
6 Nov to 8 Nov	Mathematical Properties of space time, Review of four Vectors.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Electromagnetic field tensor and Covariance of electrody – namics under Lorntz trans – formation

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Dr. Ankita Gupta.
Class with sem :	M.Sc 2nd (3rd Sem).
Subject / Paper :-	Electronics - I (19414 - 304C)

Week	Topics
25 Jul to 29 Jul	Digital Signals, Properties of digital Signal: Switching time, time period and frequency, duty cycle, difference b/w analog & digital signal.
31 Jul to 5 Aug	Number System & there Conversions.
7 Aug to 12 Aug	Binary arithmatics, signed magnitude number, Complements of no. system, Complement arithmetic, BCD.
14 Aug to 19 Aug	Weighted & unweighted Codes/Binary to Gray & Gray to Binary Conversion. Logic System; Logic gates.
21 Aug to 26 Aug	Universal Logic gate, Arithmetic gates, AND-OR-Invert, OR-AND-Invert. Design logic gates using logic family.
28 Aug to 2 Sep	Boolean Algebra SOP, POS, Expression, minterm, Maxterm, Canonical SOP & POS form expression, Implementation of SOP/POS by using minimum no. of 2 input NAND/NOR gates only, Logical Venn diagram.
4 Sep to 9 Sep	Revision of Unit - 1.
11 Sep to 16 Sep	Revision of Unit - 2.

18 Sep to 23 Sep	Karnaugh Map, Half adder, Full adder, Half Subtractor, Full Subtractor, multiplexer, De-multiplexer, Encoder.
25 Sep to 30 Sep	Decoder, Comparator, Parity checker & generator. Test of unit 1
3 Oct to 7 Oct	FF, RS Latch, Clocked RS FF, JK FF, race around condition in J-K FF. Test of unit -2.
9 Oct to 14 Oct	Revision of unit - 3 Test of unit - 3.
16 Oct to 21 Oct	T FF, D FF, Characteristics eqn for FF, State transition diagram for FF master slave FF, Registers Introduction.
23 Oct to 28 Oct	Shift Registers & its applications. Counters applications, parameters, Introduction.
30 Oct to 4 Nov	Type of Counters.
6 Nov to 8 Nov	Type of Counter & Revision of unit 4.
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	Test of unit - 1 to 4.

Lesson Plan from 25-July-2023 to 24-Nov-2023
UG / PG Odd Semester

Lecturer :	Ms. Sujata
Class with sem :	M.Sc. 2nd yr 3rd sem
Subject / Paper :-	Physics/ Atomic & Molecular physics-I

Week	Topics
25 Jul to 29 Jul	Physical interpretation of quantum no. Pauli's principle, terms for equivalent and non-equivalent electron atoms.
31 Jul to 5 Aug	space quantization: Stern-Gerlach experiment, Normal & anamalous zeeman effect, stark effect, Paschen-back effect
7 Aug to 12 Aug	Spectrum of He atom, spectra of alkali elements and fine structure in alkali spectra.
14 Aug to 19 Aug	Intensity of spectral lines: General selection rule.
21 Aug to 26 Aug	Hyperfine structure of spectra lines, Isotope effect and effect of Nuclear spin, width of spectral lines.
28 Aug to 2 Sep	Diatomic molecules and their spectra. Types of molecules.
4 Sep to 9 Sep	Diatomic linear symmetric top, assymmetric top and spherical top molecules
11 Sep to 16 Sep	Rotational spectra of diatomic molecules as a rigid rotator.

18 Sep to 23 Sep	Isotope effect in rotational spectra, energy levels and spectra of non-rigid rotor, intensity of rotational lines.
25 Sep to 30 Sep	Born oppenheimer approximation, vibrational energy of diatomic molecules.
3 Oct to 7 Oct	Diatomic molecules as a simple harmonic oscillator., vibrations spectrum of diatomic molecules.
9 Oct to 14 Oct	Energy levelsand spectrum, Morse potential energy curve, Molecules as vibrating rotator, P Q R Branches.
16 Oct to 21 Oct	Intensity of electronic bands- frank londan principle.
23 Oct to 28 Oct	Dissociation and predissociation.
30 Oct to 4 Nov	Dissociation energy, Rotational fine structure of electsonic bands.
6 Nov to 8 Nov	The fortraparabale, vibrational coarse structure diatomic molecules
9 Nov to 16 Nov	Diwali Vacation
17 Nov to 24 Nov	flourenscense: fluorescence and phosphorescence and their mechanism