

Lesson Plan


Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-Jaswinder Singh

Class and Section:-Bachelor of Physical Science-I, Session-2024-25

Subject:-Chemistry

Month	Topics
July	<b>Gaseous State(Section –B)</b> Gaseous law , Kinetic Molecular Theory of Gases, Maxwell's distribution of velocities and energies and effect of temperature
August	Calculation of root mean square velocity, average velocity and most probable velocity and related Numerical problems
	Collision diameter, collision number, collision frequency , Mean free path and effect of temperature on mean free path
	Deviation of Real gases from ideal behaviour and compressibility factor Derivation of Van der Waal's Equation of State
	Units and significance of vander waal's constants, explanation of gaseous behavior by using vander waal equation of state
September	Application Van der Waal's Equation of State in the calculation of Boyle's temperature
	Calculation of second virial coefficient and molecular diameter by using Van der Waal's Equation of State
	Calculation of molecular diameter and related numerical problems,
	<b>Solid State</b> Classification of solids based on properties and types of bonding
	Terms used in Crystallography, Law of constancy of interfacial angles law of rational indices, Elements of Symmetries
	Law of Symmetry and symmetry element in cubic system Miller indices and interplanar distance calculation
	seven crystal systems and fourteen Bravais lattices with examples
October	X-ray diffraction-Bragg's law and numerical problems,Laue method
	Rotating crystal method and powder pattern method
	Determination of Structure of NaCl ,KCl,
	Numerical Problems

  
Jaswinder Singh  
Asstt Pwf. of chemistry

Lesson Plan


**Dr. B.R. Ambedkar Govt. College, Dabwali**

Name of the Assistant Professor:-Jaswinder Singh

Class and Section:-Bachelor of Physical Science-I, Session-2024-25

Subject:-Fuel Chemistry

Month	Topics
August	Review of energy sources (renewable and non-renewable). Classification of fuels and their calorific value requisites of a good metallurgical coke
	Determination of calorific value by Bomb calorimeter and Junker's calorimeter.
	Proximate and ultimate Analysis
	Uses of coal (fuel and nonfuel) in various industries, its composition, carbonization of coal.
September	Coal gas, producer gas and water gas composition and uses.
	Fractionation of coal tar, uses of coal tar-based chemicals,
	Coal gasification (Hydrogasification and Catalytic gasification),
	Coal liquefaction and Solvent Refining.
	Composition of crude petroleum, Refining and different types of petroleum products and their applications
October	Fractional Distillation (Principle and process), Cracking (Thermal and catalytic cracking),
	Reforming Petroleum and non-petroleum fuels (LPG, CNG, LNG, bio-gas, fuels derived from biomass)
	fuel from waste, synthetic fuels (gaseous and liquids), clean fuels.
	Petrochemicals: Vinyl acetate, Propylene oxide, Isoprene
	Petrochemicals: Butadiene, Toluene and its derivatives Xylene.

  
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## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-Jaswinder Singh

Class and Section:-B.Sc. II (NM), III Semester


Session-2024-25

Subject:- Chemistry

Month	Topics
July	<b>Physical Chemistry, Chapter- Thermodynamics</b> Definition of thermodynamic terms : system, surrounding etc. Types of systems, intensive and extensive properties.
	State and path functions and their differentials, State variables
August	Thermodynamic process, Thermodynamic equilibrium, Concept of heat and work, First law of thermodynamics: statement
	concepts of internal energy and enthalpy ,Heat capacity, heat capacities at constant volume and pressure and their relationship
	Numerical problems based on internal energy and heat capacities, Joule–Thomson effect, Experimental set up
	Joule–Thomson coefficient for real gas and inversion temperature
	Inversion temperature expression for real gas derivation
	Calculation of w,q, dU & dH for the expansion of ideal gases under isothermal conditions for reversible process
	Calculation of w,q, dU & dH for the expansion of ideal gases under adiabatic conditions for reversible process,
	Comparison of isothermal and adiabatic process,Numerical problems
	Bond enthalpies and calculations of enthalpy of reaction, Kirchoff's Equation and numericals
	<b>Chapter- Chemical Equilibrium</b>
	Equilibrium constant and free energy, concept of chemical potential
	Thermodynamic derivation of law of chemical equilibrium
	Temperature dependence of equilibrium constant-Vant Hoff's Equation
	Le-Chatelier's principle and its applications
Clausius–Clapeyron equation and its applications	
September	<b>Chapter- Distribution Law</b> Nernst distribution law – its thermodynamic derivation-conditions
	association and dissociation of solute cases
	Applications of distribution law: - Determination of degree of hydrolysis and hydrolysis constant of aniline hydrochloride
	Determination of equilibrium constant of potassium tri –iodide complex
	Process of extraction-numerical problems
	<b>Chapter-Chemistry of d-Block elements</b>
	Definition of transition elements, position in the periodic table, General characteristic properties of d-Block elements
	Atomic radius, density, ionization energy of d-block elements.
Catalytic properties, alloy formation and electrode potential of d-block elements	

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Month	Topics
September	Oxidation states, colour , magnetic properties of d-block elements
	Comparison of properties of 3d elements with 4d and 5d elements-ionic radii, oxidation state
	Comparison of properties of 3d elements with 4d and 5d elements-magnetic and spectral properties
	Comparison of properties of 3d elements with 4d and 5d elements- stereo chemistry, Stability of various oxidation states
	Structure and properties of compounds of transition elements- $TiO_2$ , $VOCl_2$ , Structure and properties of compounds of transition elements- $FeCl_3$ , $CuCl_2$ and $Ni(CO)_4$
October	<b>Chapter- Coordination Compounds</b>
	Introduction -Werner's theory of coordination compounds
	effective atomic number Rule
	Applications of EAN Rule
	Chelate effect, factors effecting the stability of chelate
	IUPAC nomenclature of coordination compounds
	IUPAC nomenclature of coordination compounds
	Isomerism in coordination compounds-Structural
	Isomerism in coordination compounds-Geometrical in square planar complexes
	Isomerism in coordination compounds-Geometrical in Octahedral complexes
	Isomerism in coordination compounds-optical
	Valence bond theory -introduction
	valence bond theory of transition metal complexes-Octahedral
	valence bond theory of transition metal complexes-Octahedral
	valence bond theory of transition metal complexes-Tetrahedral
	valence bond theory of transition metal complexes-Tetrahedral
	Applications of Coordination Compounds
November	Physical properties of solvents-Viscosity, Self -ionisation
	Types of solvents
	Reaction in liquid ammonia
	Reaction in liquid ammonia
	liquid $NH_3$ as non-aqueous solvent-Properties
	Advantage and disadvantage of liquid ammonia
	liquid $SO_2$ as non-aqueous solvent
	Advantage and disadvantage of liquid $SO_2$

  
 Jaswinder Singh  
 Asstt. Prof. of Chemistry

## Lesson Plan

**Dr. B.R. Ambedkar Govt. College, Dabwali**

Name of the Assistant Professor:-Jaswinder Singh

Class and Section:-B.Sc. III (NM), V Semester, Session-2024-25

Subject:- Chemistry

Month	Topics	
<b>July</b>	<b>Chapter - Quantum Mechanics-I</b> 1.2. Black-body radiation, 1.3. Kirchoff's law, 1.4. Spectral distribution of black body radiation, 1.5. explanation of Spectral distribution of black body radiation on the basis of classical Mechanics, 1.6. Plank's Radiation law 1.7. photoelectric effect 1.8. Heat Capacities of solids	
	1.10. origin of quantum Mechanics 1.19 Schrodinger Wave equation 1.20. eigen values and eigen functions 1.21. significance of the wave function 1.22. Normalized and orthogonal wave function 1.23. operators in quantum mechanics and their role 1.24. postulates of quantum Mechanics 1.25. Derivation of Schrodinger wave equation based on the postulates of quantum mechanics 1.27. Determination of wave function & energy of a particle in one dimensional box by using Schrodinger wave equation	
	1.27.7 To show quantum mechanically that position and momentum cannot be predicated simultaneously	
	<b>Chapter- Spectroscopy-I</b> 3.1. Introduction: Electromagnetic radiation, 3.2. regions of spectrum 3.3 to 3.7. basic features of spectroscopy, resolving power 3.8. statement of Born-oppenheimer approximation ,3.10. selection rule 3.11. widths and intensity of signals 3.12. degrees of freedom and examples 3.13. to 3.17. Rotational Spectrum, Selection rules, Energy levels of rigid rotator. spectral intensity distribution using population distribution , determination of bond length and isotopic effect	
<b>October</b>	<b>Spectroscopy-II, Chapter-Vibrational spectrum</b> Selection rules, Energy levels of simple harmonic oscillator, pure vibrational ,spectrum of diatomic molecules determination of force constant and qualitative relation of force constant and bond energy Vibrational-rotational Spectrum and selection rule P,Q,R branches in Vibrational-rotational Spectrum Numerical problems based on rotational and vibrational spectra	
	<b>Raman Spectrum</b> Concept of polarizability and explanation of Raman effect based on polarizability selection rules, Quantum theory of Raman spectra. pure rotational Raman spectra of diatomic molecules pure vibrational Raman spectra of diatomic molecules , rotational and vibrational Raman spectra of diatomic molecules	
	<b>November</b>	5.3. polarization – Clausius – Mossotti equation . Orientation of dipoles in an electric field, dipole moment, induced dipole moment 5.3.5. measurement of dipole moment -temperature method and refractivity method 5.3.5. application dipole moment and structure of molecules, 5.4. Magnetic permeability and susceptibility and its determination. magnetic properties – paramagnetism, diamagnetism and ferromagnetism.

*Jaswinder Singh, Asst. Prof. of Chemistry*

# Lesson Plan

**Dr. B.R. Ambedkar Govt. College, Dabwali**

Name of the Assistant Professor:-Rajpal Verma

Class and Section:-B.Sc. I (1<sup>st</sup> sem) Session-2024-25

Subject:-Organic Chemistry & Inorganic Chemistry

Month	Topics
July-Aug 2024	<b>General Organic Chemistry</b> Localized and Delocalized chemical bond, van der Waal's interactions, resonance and its conditions and applications, hyperconjugation, inductive effect, electromeric effect and their comparison <b>Stereochemistry of Organic Compounds</b> Types of isomerism, optical isomerism - elements of symmetry, molecular chirality, chiral and achiral molecules with two stereogenic centres, enantiomers and their properties,
Sept 2024	Diastereomers and their properties, erythro and threo diastereomers, meso compounds, Difference between conformations and configurations, Newmann and Sawhorse projections, Fischer and Flying wedge configurations Conformational isomerism – conformational analysis of ethane and n-butane, conformations of cyclohexane Relative and absolute configurations, sequence rules, R & S systems of nomenclature Geometric isomerism – cis, trans isomerism, E & Z system of nomenclature
Oct 2024	<b>Atomic Structure</b> Dual behaviour of matter and radiation, de Broglie's relation, Heisenberg's uncertainty principle, concept of atomic orbitals, Significance of quantum numbers, radial and angular wave functions, normal and orthogonal wave functions, significance of $\psi$ and $\psi^2$ , shapes of s, p, d and f orbitals, rules for filling electrons in various orbitals, effective nuclear charge, Slater's rules
Nov 2024	<b>Periodic Table and Atomic Properties</b> Classification of periodic table, definition of atomic and ionic radii, ionization energy, electron affinity and electronegativity, trends in periodic table (in s and p block elements), Pauling, Mulliken, Allred Rachow and Mulliken Jaffe's electronegativity scale.

# Lesson Plan

**Dr. B.R. Ambedkar Govt. College, Dabwali**

Name of the Assistant Professor:-Rajpal Verma

Class and Section:-B.Sc. II (3<sup>rd</sup> sem) Session-2024-25

Subject:-Organic Chemistry & Inorganic Chemistry

Month	Topics
July-Aug 2024	<b>Chapter- Alcohols</b> Monohydric alcohols, nomenclature, methods of formation by reduction of aldehydes, ketones, carboxylic acids and esters. Hydrogen bonding. Acidic nature. Reactions of alcohols. Dihydric alcohols - nomenclature, methods of formation, chemical reactions of vicinal glycols, oxidative cleavage[Pb(OAc) <sub>4</sub> and HIO <sub>4</sub> ] pinacol-pinacolone rearrangement
Sept 2024	<b>Chapter- Phenols</b> Nomenclature, structure and bonding. Preparation of phenols, physical properties and acidic character. Comparative acidic strengths of alcohols and phenols, resonance stabilization of phenoxide ion. Reactions of phenols — electrophilic aromatic substitution, Mechanisms of Fries rearrangement, Claisen rearrangement, Reimer-Tiemann reaction, Kolbe's reaction and Schotten and Baumann reactions. <b>Chapter- Epoxides</b> Synthesis of epoxides. Acid and base-catalyzed ring opening of epoxides, orientation of epoxide ring opening, reactions of Grignard and organolithium reagents with epoxides.
Oct 2024	<b>Chapter- Ultraviolet (UV) absorption spectroscopy</b> Absorption laws (Beer-Lambert law), molar absorptivity, presentation and analysis of UV spectra, types of electronic transitions, effect of conjugation. Concept of chromophore and auxochrome. Bathochromic, hypsochromic, hyperchromic and hypochromic shifts. UV spectra of conjugated enes and enones, Woodward- Fieser rules, calculation of $\lambda_{max}$ of simple conjugated dienes and $\alpha,\beta$ -unsaturated ketones. Applications of UV Spectroscopy in structure elucidation of simple organic compounds. <b>Chapter- Carboxylic Acids &amp; Acid Derivatives</b> Nomenclature of Carboxylic acids, structure and bonding, physical properties, acidity of carboxylic acids, effects of substituents on acid strength. Preparation of carboxylic acids. Reactions of carboxylic acids. Hell-Volhard-Zelinsky reaction. Reduction of carboxylic acids. Mechanism of decarboxylation. Relative stability of acyl derivatives. Physical properties, interconversion of acid derivatives by nucleophilic acyl substitution. Mechanisms of esterification and hydrolysis (acidic and basic).

Nov 2024	<p><b>Chapter- Coordination Compounds</b> Werner's theory of coordination compounds, effective atomic number, chelates, nomenclature of coordination compounds, Isomerism in coordination compounds, valence bond theory of transition metal complexes.</p> <p><b>Chapter- Non-aqueous solvents</b> Physical properties of solvents, types of solvents and their general characteristics, reactions in non aqueous solvents with reference to liquid NH<sub>3</sub> and liquid SO<sub>2</sub>.</p>
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## *Lesson Plan*

**Dr. B.R. Ambedkar Govt. College, Dabwali**

Name of the Assistant Professor: -Rajpal Verma

Class and Section: -B.Sc. III (5<sup>th</sup> sem) Session-2024-25

Subject: -Organic Chemistry & Inorganic Chemistry

Month	Topics
July-Aug 2024	<p><b>Chapter- Carbohydrates</b> Classification and nomenclature of Monosaccharides, mechanism of osazone formation, interconversion of glucose and fructose, chain lengthening and chain shortening of aldoses. Configuration of monosaccharides. Erythro and threo diastereomers. Conversion of glucose into mannose. Formation of glycosides, Determination of ring size of glucose and fructose. Open chain and cyclic structure of D(+)-glucose &amp; D(-) fructose. Mechanism of mutarotation. Structures of ribose and deoxyribose. An introduction to disaccharides (maltose, sucrose and lactose) and polysaccharides (starch and cellulose) without involving structure determination.</p>
Sept 2024	<p><b>Chapter- Organometallic Compounds</b> Grignard reagents-formation, structure and chemical reactions. Organozinc compounds: formation and chemical reactions. Organolithium compounds: formation and chemical reactions</p> <p><b>Chapter- Epoxides</b> Synthesis of epoxides. Acid and base-catalyzed ring opening of epoxides, orientation of epoxide ring opening, reactions of Grignard and organolithium reagents with epoxides.</p> <p><b>Chapter- NMR Spectroscopy</b> Principle of nuclear magnetic resonance, the PMR spectrum, number of signals, peak areas, equivalent and nonequivalent protons positions of signals and chemical shift, shielding and deshielding of protons, proton counting.</p>



Oct 2024	<p>Splitting of signals and coupling constants, magnetic equivalence of protons. Discussion of PMR spectra of the molecules: ethyl bromide, n-propyl bromide, isopropyl bromide, 1,1-dibromoethane, ethanol, acetaldehyde, ethyl acetate, toluene, benzaldehyde and acetophenone. Simple problems on PMR spectroscopy for structure determination of organic compounds.</p> <p><b>Chapter- Metal- Ligand Bonding in Transition Metal complexes</b></p> <p>Limitations of valence bond theory, an elementary idea of crystal field theory, crystal field splitting in octahedral, tetrahedral and square planer complexes, factors affecting the crystal field parameters.</p>
Nov 2024	<p><b>Chapter- Thermodynamics and Kinetic Aspects of metal complexes</b></p> <p>A brief outline of thermodynamic stability of metal complexes and factors affecting the stability, Irving William Series, substitution reactions of square planer complexes of Pt[II], Trans effect.</p> <p><b>Chapter- Electronic spectra of Transition metal complexes</b></p> <p>Selection rules for d-d transition, spectroscopic ground states, spectrochemical series, Orgel energy level diagram for d1 and d9 states, discussion of electronic spectrum of <math>[\text{Ti}(\text{H}_2\text{O})_6]^{+3}</math> complex ion.</p>

# DR. B.R. AMBEDKAR GOVT. COLLEGE DABWALI (SIRSA)

## *Lesson Plan for the Session 2024 - 2025* (Semester I)

Name of the Associa: Dr. Usha Bhati

Class & Section: B.Com. 1

Subject : Business Laws

Sr.N	Months	Topics
1	July	<b>Unit - I</b> Indian Contract Act 1872 characteristics or Essential Elements of Contract.
1	August	Agreement: Offer and acceptance, Consideration, Contractual Capacity, Free consent, Legality of objects. Void agreements Quasi Contracts
2	September	<b>Unit – II</b> Discharge of Contracts and Remedies for Breach Performance of Contracts, Mutual agreements, Supervening Impossibility, Lapse of Time, Operation of Law Breach of Contract, Rescission, suit for damages, Quantum Meruit, suit for specific performance, Suit for Injunction.
3	October	<b>Unit – III</b> Contract of Indemnity and Guarantee, Contracts of Bailment and Pledge, Contract of Agency.
4	November	<b>Unit-IV</b> Sale of Goods Act 1930: Meaning, Conditions and Warranties, Transfer of ownership in Goods, Performance of the Contract of Sale, Unpaid Seller. Revision

Signature of the Teacher

# DR. B.R. AMBEDKAR GOVT. COLLEGE DABWALI (SIRSA)

## *Lesson Plan for the Session 2024 - 2025* (Semester III)

Name of the Associate Professor: Dr. Usha Bhati

Class & Section: B.Com II

Subject : Management Principles and Applications

Sr. No	Month	Topics
1	July	<b>Unit - I</b> Management :An introduction,characteristics, importance.
2	August	History and approaches to Management. Planning and types of plans Environment analysis and diagnosis
3	September	Decision making: Concepts and Techniques <b>Unit-II</b> Organizing: Concept, Process and Formal and Informal Structure Span of Management Types of Authority/ Forms of Organization Structure. Delegation of Authority and Decentralization.
4	October	Staffing: Concept and Process Motivation: Concept and Theories Leadership: Importance and Theories.
5	November	<b>Unit – III</b> Controlling Concept and Process Control Techniques and Emerging Issues in Management. Revision

# DR. B.R. AMBEDKAR GOVT. COLLEGE DABWALI (SIRSA)

## *Lesson Plan for the Session 2024 -2025 (Semester V)*

Name of the Associate Professor: Dr. Usha Bhati

Class & Section: B.Com.III

Subject : Cost Accounting

S.N	Months	Topics
1	July	<b>Unit-I</b> Cost Accounting : An Introduction. Cost Elements, Concepts and Classification
2	August	Material Cost Accounting Inventory Cost Control Labour Cost Accounting Methods of wage payment
2	September	<b>Unit-II</b> Accounting for Overheads : Classification and Treatment Overheads: Allocation, Apportionment Machine Hour Rate Method Unit or Output Costing-I
3	October	Unit or Output Costing-II Contract Costing-II Job or batch Costing <b>Unit-III</b>

		Process Costing
4	November	Operation Costing Reconciliation of Cost and Financial Accounts Cost Control Accounts: Non integrated and Integrated

## DR. B.R. AMBEDKAR GOVT. COLLEGE DABWALI (SIRSA)

*Lesson Plan for the Session 2024 - 2025* (Semester V)

**Name of the Associate Professor :** Dr. Usha Bhati

**Class & Section:** B.Com III

**Subject :** Financial Management

S.N	Months	Topics
1	July	<b>Unit-I</b> Nature and Scope of Financial Management. Financial Planning
2	August	Capitalization Financial Forecasting Capital Budgeting: Introduction
3	September	Capital Budgeting: Techniques and Evaluation <b>Unit-II</b> Sources of Finance: Long Term Sources of Finance: Short Term
4	October	Cost of Capital Capital Structure Leverage <b>UNIT-III</b> Dividend Policy
5	November	Management of Working Capital Management of Cash

		Management of Receivables Management of Inventory Revision
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Signature of the Teacher

**LESSON PLAN FOR ODD SEM (2024-25) for B.Com Classes (Govt. College, Dabwali)**

**Dr. Bharti Brar, Asso. Prof. in Commerce, Department of Commerce.**

<b>Month and Year</b>	<b>BUSINESS STATISTICS (B.Com 3<sup>rd</sup> Sem)</b>	<b>INDIAN ECONOMY (B.Com 3<sup>rd</sup> Sem)</b>	<b>INTERNATIONAL BUSINESS (B.Com 5<sup>th</sup> Sem)</b>	<b>ADVERTISING (B.Com 5<sup>th</sup> Sem)</b>	<b>BUSINESS MANAGEMENT (B.Com 1<sup>st</sup> Sem)</b>	<b>COMPUTER APPLICATION IN BUSINESS Practical (B.Com 1<sup>st</sup> Sem) Shared</b>
<b>JULY &amp; AUG 2024</b>	Introduction to Statistics, Measures of Central Tendency.	Economic Systems, Developing and Developed Economies, Features of Indian Economy.	Introduction to IB, Globalization, Modes of entry in IB, IB env.	Communication Process, Communication Mix and Advertising, Advertising – Meaning, Scope and Functions	Management: An introduction, Development of Management Thought, Planning, Decision making, Mgt by objectives	Intro to Word Processing, Word Processing concepts, Use of templates and styles
<b>SEPT 2024</b>	Measures of Central Tendency (contd...), Measures of Dispersion, Measures of Skewness,	Comparison of Indian Economy with Developed Economies, Structural Shifts, Relative Importance of Agriculture, Industry and Services	Trends in World Trade, Trends in India's Foreign Trade, Commercial Policy Instruments, Balance of Payments, WTO, UNCTAD, IMF and World Bank, Regional Economic Integration	Economic, Social, Legal and Ethical Aspects, Types of Advertising, Advertising objectives, Audience Analysis.	Organizing, Forms of Organization Structure, Span of Control, Delegation of Authority, Decentralization and Centralization	Editing Text, Find & replace text, Formatting, Spell check, Auto Correct, Auto text: Bullets and numbering, tabs, Paragraph formatting, Indent, Page Formatting, Header & Footer
<b>OCT 2024</b>	Correlation, Regression, Index Nos, Probability.	Infrastructure, Foreign Trade and Economic Growth, Foreign Trade Theories	Classical and Modern Theories of International Trade, Foreign Exchange Markets and Risk Management	Advertising Budget, Types of Advertising Media, Media Planning and Scheduling, Creative Aspects of Advertising	Directing, Supervision, Motivation, Leadership, Communication	Page break, Inserting tables, pictures and videos, Mail Merge, Printing
<b>NOV 2024</b>	Time Series Analysis, Revision.	Export Promotion and Import Substitution, Terms of Trade, Gains from Trade, Revision.	Foreign Investment, Export Promotion Measures, Special Economic Zones, Revision.	Measuring Advertising Effectiveness, Advertising Agency, Advertising and Consumer Behaviour, Revision.	Coordination, Controlling, Control Techniques, Revision.	Practice

# *Lesson Plan*

Govt. College, Dabwali (Sirsa)

Name of the Assistant Professor:- **Dr. Deepak Raj**

Class and Section:- B.A.-III

Session: 2024-25

Subject:- English

Month	Topics
July	Introduction to the novelist Raja Rao and his works Reading of the Text: <b>Kanthapura</b>
August	Reading of the Text: <b>Kanthapura</b> Discussion on Important Questions of the Novel: Kanthapura Discussion on Important References to the Context of the Novel: Kanthapura
September	Test For Internal Assesment: Literary Terms/Important Questions/References to the Context from the Novel: Kanthapura, Simple, Compound and Complex sentences.
October	Transitional Words and Phrases: Words that Add Information/ Words that Show Conclusion, Defining and Non-defining clauses etc.
November	Transitional Words and Phrases: Words that Repeat Information/ Words that Show Comparison/ Words that Show Contrasts or Differences Revision of the Syllabus
December	University Examination



# Lesson Plan

Govt. College, Dabwali (Sirsa)

Name of the Assistant Professor:- Dr. Deepak Raj

Class and Section:- B.A.-II

Session: 2024-25

Subject:- English

Month	Topics
J	Introduction to the Syllabus Introducing Phonetic Symbols of English Language: Pure Vowels Diphthongs, Consonants, Practice of Phonetic Symbols
August	<p>Important Poetic Forms and Devices, Test of Poetic Forms and Devices, Introduction to the Poetry: Types and Characteristics, Introduction to the Writer: William Shakespeare, Reading of the Sonnet XVIII by William Shakespeare Glossary and Transcriptions, Synonyms/Antonyms, Discussion on Question- Answer, Extended Grammar, Non-Finite Verbs: Infinitive, Introduction to the Poet: Alexander Pope, Brief Over-view of the Poem: Know Then Thyself Reading The Text: Know Then ThySelf, Glossary And Transcriptions, Vocabulary: Antonyms/Synonyms, Discussion on Question-Answer Extended Grammar, Non-Finite Verbs: Gerund, Introduction to the Poet: Thomas Gray, Brief Over-view of the Poem: Elegy Written in a Country Churchyard Reading The Text: Elegy Written in a Country Churchyard, Glossary And Transcriptions, Vocabulary: Antonyms/Synonyms, Discussion on Question- Answer, Extended Grammar, Prepositions: I</p> <p>Important Poetic Forms and Devices, Test of Poetic Forms and Devices Introduction to the Poetry: Types and Characteristics, Introduction to the Writer: William Shakespeare, Reading of the Sonnet XVIII by William Shakespeare Glossary and Transcriptions, Synonyms/Antonyms, Discussion on Question- Answer, Extended Grammar, Non-Finite Verbs: Infinitive, Introduction to the Poet: Alexander Pope, Brief Over-view of the Poem: Know Then Thyself Reading The Text: Know Then ThySelf, Glossary And Transcriptions Vocabulary: Antonyms/Synonyms, Discussion on Question-Answer, Extended Grammar, Non-Finite Verbs: Gerund, Introduction to the Poet: Thomas Gray Brief Over-view of the Poem: Elegy Written in a Country Churchyard, Reading The Text: Elegy Written in a Country Churchyard, Glossary And Transcriptions Vocabulary: Antonyms/Synonyms, Discussion on Question-Answer, Extended Grammar, Prepositions: I</p>

September	<p>Introduction to the Poet: William Wordsworth,  Brief Over-view of the Poem: The World is Too Much With Us  Reading the Text: The World is Too Much With Us  Glossary and Transcriptions  Vocabulary: Antonyms/Synonyms, Discussion on Question-Answer,  Extended Grammar  Preposition: II  Prepositions of Place/Time/Position/Movement  Verb+Preposition Combinations  Noun+Preposition Combinations  Adjective+Preposition Combinations  <b>Test For Internal Assesment: Poetic Devices/Sonnet XVIII/ The World is Too Much With Us</b>  Introduction to the Poet: John Keats  Brief Over-view of the Poem: Ode on a Grecian Urn  Reading the Text: Ode on a Grecian Urn  Reading the Text: Ode on a Grecian Urn  Glossary and Transcriptions  Vocabulary: Antonyms/Synonyms  Discussion on Question-Answer  Extended Grammar: Clauses  Relative Clauses/Noun Clauses  Adverbial Clause  Snap Test of Clauses/Problem Solving of Students Related to Clauses  Introduction to the Poet: Robert Browning  Brief Over-view of the Poem: My Last Duchess  <b>Assignment I: Literary Terms/Phonetic Transcription/Sonnet XVIII/ Ode on a Grecian Urn</b>  Reading the Text: My Last Duchess  Reading the Text: My Last Duchess  Glossary and Transcriptions  Vocabulary: Antonyms/Synonyms  Discussion on Question-Answer  Extended Grammar: Noun Clauses  Introduction to the Poet: W. B. Yeats  Brief Over-view of the Poem: When You are Old  Reading the Text: When You are Old  Glossary and Transcriptions  Vocabulary: Antonyms/Synonyms  Discussion on Question-Answer  Extended Grammar: Adverbial Clauses  Introduction to the Poet: Rabindranath Tagore  Brief Over-view of the Poem: Where the Mind is Without Fear  Reading the Text: Where the Mind is Without Fear  Glossary and Transcriptions  Vocabulary: Antonyms/Synonyms  Extended Grammar: Conditionals</p>
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October	<p>Extended Grammar: Conditionals  <b>Mahatma Gandhi Jayanti</b>  Class Test of the Poem: Where the Mind is Without Fear  <b>Assignment II: MY Last Duchess/Elegy Written in a Country Churchyard/ Prepositions/Non-Finite Verbs-Infinitive/Gerund</b>  Introduction to the Poet: Sarojini Naidu  Brief Over-view of the Poem: The Bangle Sellers  Reading the Text: The Bangle Sellers  Discussion on Question-Answer  Discussion on Question-Answer  Extended Grammar: Verb Patterns Extended Grammar: Verb Patterns  Discussion on the Above Taught Complete Syllabus/Problem Solving</p> <p>Class Test: The Bangle Sellers  Introduction to the Poet: Imtiaz Dharker  General Over-View on the Condition of Women in the Context of India  Brief Over-View of the Poem: Another Woman  Reading the Text: Another Woman  Reading the Text: Another Woman  Glossary and Transcriptions  Vocabulary: Antonyms/Synonyms  Discussion on Question-Answer</p>
November	<p>Discussion on Question-Answer, Extended Grammar: Prefixes,  Extended Grammar: Prefixes, Extended Grammar: Suffixes  Class Test: Another Woman  Previous Year Paper of CDLU-SIRSA Will be Solved  Previous Year Paper of KUK-Krukshetra Will be Solved  Previous Year Paper of MDU-Rohtak Will be Solved  Discussion on Doubts/Problem Solving  Discussion on Doubts/Problem Solving  Class Test: Complete Literary Terms, Class Test: Complete Poems  Class Test: Complete Extended Grammar  Discussion on Doubts/Problem Solving  Revision of Complete Syllabus</p>
December	<p>University Examination</p>

Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

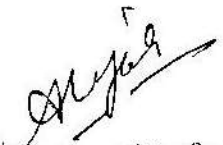
Lesson Plan for the Session 2024 - 2025 (Semester I)

Name of the A.P./Extension Lecturer: Dr. Anjali Sachdeva

Class & Section: B.A I DSC

Subject: History

Sr. No.	Months	Topics
1	July 2024	<ul style="list-style-type: none"><li>• Concept of history: meaning, definition, scope, importance of history.</li></ul>
2	August 2024	<ul style="list-style-type: none"><li>• Sources of Indian history: archaeological sources, religious sources, accounts of the foreigners.</li><li>• Pre- Historic age hunter gatherer: Paleolithic and Mesolithic, hand-axe culture, tools, life, religious beliefs, Food, etc.</li><li>• Map Work:- Important Sites of Paleolithic age</li></ul>
3	September 2024	<ul style="list-style-type: none"><li>• Concept of Neolithic: Neolithic culture in India, main characteristics of Neolithic age.</li><li>• Harappan culture: discovery, founder, origin, Extent and main sites, urban planning, society, religious life, nature of economic organization, nature of political organization, art, urban decline, later Harappan Culture.</li><li>• Vedic culture: geographical background of Vedic culture, Vedic society, polity, economy, change Economy, polity, religion in the later Vedic period.</li><li>• Map Work:- Important Sites of Harappan culture (Assignment - I)</li></ul>
4	October 2024	<ul style="list-style-type: none"><li>• Social development: varna system, caste system, theories of caste system, Untouchability, marriage.</li><li>• Property relation, condition of women.</li><li>• Origin of Jainism, life and teachings of Mahavira, Jain Sangha, schism and legacy of Jainism.</li><li>• Map Work:- Important sites connected with Buddha and Mahavira</li><li>• Mid Term Exam</li></ul>
5	November 2024	<ul style="list-style-type: none"><li>• Buddhism: life and teachings of lord Buddha, the Buddhist Sangha, sectarian development and councils.</li><li>Downfall of Buddhism, legacy of Buddhism, comparison between Buddhism and Jainism.</li><li>• Political condition of north India in 6 centuries, mahajanpads.</li><li>• Sangam age: literature, society and culture, Hala dynasty and Pandya's dynasty.</li><li>• Map Work:- Sites of mahajanpads</li></ul> <p>Class Test &amp; Revision</p>

  
Signature of Professor

# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

Lesson Plan for the Session 2024 - 2025 (Semester III)

Name of the A.P./Extension Lecturer: Dr. Anjali Sachdeva

Class & Section: B.A II & B.A HONS (Punjabi)

Subject: History

Sr. No.	Months	Topics
1	July 2024	Establishment of Mughal Empire: Babur. Map Work:- Political Conditions of India in 1526
2	August 2024	Sher Shah and his Administration, Akbar: Expansion of Empire, Rajput Policy and Religious Policy. Map Work:- Mughal Empire at the Death of Akbar (1605) Assignment - I
3	September 2024	Aurangzeb: Relations with Rajputs and Religious Policy, Relations of Mughal with the Sikhs and Marathas, Mughal Administration: Central and Provincial. Map Work:- Mughal Empire at the Death of Aurangzeb (1707) Assignment - II
4	October 2024	Institutions: Mansabdari, Architecture during Mughals, Decline of Mughal Empire, Rivalry between the French and the British in India Occupation of Bengal by the British: Battles of Plessey and Buxer. Test (for Assessment)
5	November 2024	Subsidiary Alliance and Doctrine of Lapse, Uprising of 1857: Causes, Course and Consequences. Map Work:- Major Centres of Uprising of 1857 Class Test & Revision

Signature of the Teacher

# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

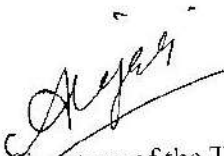
Lesson Plan for the Session 2024 - 2025 (Semester V)

Name of the A.P./Extension Lecturer: Dr. Anjali Sachdeva

Class & Section: B.A III & B.A HONS (Punjabi)

Subject: History

Sr. No.	Months	Topics
1	July 2024	Rise of Modern West: Renaissance and Reformation.
2	August 2024	Rise of Mercantilism and Beginning of Capitalism, Agricultural Revolution, Industrial Revolution. Map Work :- Countries of Agriculture Revolution in Europe
3	September 2024	French Revolution, Napoleon Bonaparte, Congress of Vienna. Map Work :- Europe on the Eve of French Revolution. 1789 Assignment: -I, II
4	October 2024	Nationalism in Europe: Unifications of Italy and Germany, Glorious Revolution of 1688. Map Work :- Unification of Italy & Germany Test (For Assessment)
5	November 2024	Revolution in Russia Class Test & Revision.

  
Signature of the Teacher

# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

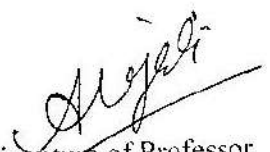
Lesson Plan for the Session 2024 - 2025 (Semester III)

Name of the A.P./Extension Lecturer: Dr. Anjali Sachdeva

Class & Section: M.A II (Punjabi)

Subject: History (OEC)

Sr. No.	Months	Topics
1	July 2024	Approaches to Indian Nationalism
2	August 2024	Conceptual Debates, Emergence of Organized Nationalism, Trends till 1919
3	September 2024	Gandhi and Movements - Nature, Programme, Social Composition, Limitations and Challenges, Major movements of Gandhi.
4	October 2024	Revolutionary and Left Movements, Subhash Bose and INA and State Peoples' Movements. ASSIGNMENT -I
5	November 2024	Working of Congress and Non-Congress Provincial Ministries, Communal Politics, Partition of India. MID-TERM EXAMINATION

  
Signature of Professor

## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-NARESH KUMAR (EXT. LECTURER)

Class and Section:-BA 5th Semester Session-2024-25

Subject:- Hindi

Week	Topics
July 2024	अज्ञेय का साहित्यिक परिचय, कविताओं की व्याख्या
August 2024	अज्ञेय की कविताओं की व्याख्या, प्रश्नोत्तर, धर्मवीर भारती का साहित्यिक परिचय, कविताओं की व्याख्या, प्रश्नोत्तर, नरेश मेहता साहित्यिक परिचय, कविताओं की व्याख्या, नागार्जुन साहित्यिक परिचय, कविताओं की व्याख्या, प्रश्नोत्तर,
September 2024	रघुवीर सहाय साहित्यिक परिचय कविताओं की व्याख्या, प्रश्नोत्तर कुंवर नारायण व लीलाधर जगुड़ी का साहित्यिक परिचय, कविताओं की व्याख्या, प्रश्नोत्तर। Class test & assignment
October 2024	आधुनिक हिंदी साहित्य (कविता) आधुनिक हिंदी कविता का क्रमिक विकास, आधुनिक काल की परिस्थितियाँ, भारतेंदु युग, दिवेदी युग, छायावाद, प्रगतिवाद, प्रयोगवाद, नयी कविता, समकालीन कविता
November 2024	पत्र लेखन, संक्षेपण, पल्लवन
	6 <sup>th</sup> semester
JAN 2025	बालमुकुंद गुप्त साहित्यिक परिचय, आशा का अंत निबंध, निबंध की व्याख्या, प्रश्नोत्तर आचार्य रामचंद्र शुक्ल साहित्यिक परिचय, उत्साह निबंध, व्याख्या, प्रश्नोत्तर, महादेवी वर्मा साहित्यिक परिचय, गिल्लू निबंध, निबंध की व्याख्या प्रश्नोत्तर
FEB 2025	आचार्य हजारी प्रसाद द्विवेदी साहित्यिक परिचय, देवदारु निबंध, निबंध की व्याख्या, प्रश्नोत्तर, श्रीविद्यानिवास मिश्र का साहित्यिक परिचय निबंध, निबंध की व्याख्या, प्रश्नोत्तर, हरिशंकर परसाई का साहित्यिक परिचय, निबंध सदाचार का ताबीज की व्याख्या, प्रश्नोत्तर, राहुल सांकृत्यायन का साहित्यिक परिचय, निबंध, निबंध की व्याख्या, प्रश्नोत्तर। Class test & assignment
MARCH 2025	हरियाणवी भाषा उद्भव और विकास, हरियाणवी भाषा की प्रमुख बोलियाँ, हरियाणा की सांग परम्परा, हरियाणवी कविता, उपन्यास, कहानी नाट्य साहित्य
APRIL 2025	पत्रकारिता स्वरूप व प्रकार, शीर्षक रचना, संपादक के गुण और दायित्व, फीचर लेखन, स्वतंत्र प्रेस की अवधारणा

*Atma*  
E.A. Leela  
(N. Kumar)



## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-NARESH KUMAR (EXT. LECTURER)

Class and Section:-BA III Semester Session-2024-25

Subject:- Hindi

Week	Topics
July 2024	पाठ्यक्रम परिचय, अयोध्यासिंह उपाध्याय हरिऔध साहित्यिक परिचय पवनदूती कविता का प्रतिपाद्य, व्याख्या
August 2024	पवनदूती की व्याख्या, प्रश्नोत्तर, मैथिलीशरण गुप्त साहित्यिक परिचय, जयद्रथ वध, भारत भारती, संदेश यहां में नहीं स्वर्ग का लाया व्याख्या, प्रश्नोत्तर जयशंकर प्रसाद साहित्यिक परिचय, आनंद सर्ग की व्याख्या, आंसू की व्याख्या व प्रश्नोत्तर
September 2024	सुर्यकांत त्रिपाठी निराला साहित्यिक परिचय, कविताओं की व्याख्या प्रश्नोत्तर, महादेवी वर्मा साहित्यिक परिचय, व्याख्या, प्रश्नोत्तर रामधारी सिंह दिनकर साहित्यिक परिचय व्याख्या, प्रश्नोत्तर भारतभूषण अग्रवाल साहित्यिक परिचय, व्याख्या प्रश्नोत्तर
October 2024	रीतिकाल एक परिचय. रीतिकाल की परिस्थितियाँ, नामकरण सीमा निर्धारण, रीतिबद्ध, रीतिसिद्ध, रीतिमुक्त काव्यधारा का परिचय एवम प्रवृत्तियाँ, रीतिकाल की उपलब्धि
November 2024	कम्प्यूटर: स्वरूप और महत्व ई-मेल: प्रेषण-ग्रहण, इंटरनेट: स्वरूप व उपयोगिता। अनुवाद परिभाषा स्वरूप मशीनी अनुवाद
SEMESTER IV	
JAN 2025	पाठ्यक्रम-परिचय, प्रेमचंद का साहित्यिक परिचय, ईदगाह कहानी, कहानी की व्याख्या, प्रश्नोत्तर जयशंकर प्रसाद साहित्यिक परिचय, पुरस्कार कहानी व्याख्या, प्रश्नोत्तर अजेय का साहित्यिक परिचय, गौरीन कहानी, कहानी की व्याख्या
FEB 2025	गौरीन कहानी के प्रश्नोत्तर, मोहन राकेश साहित्यिक परिचय, मलबे का मालिक कहानी, कहानी की व्याख्या, प्रश्नोत्तर रेणु का साहित्यिक परिचय व्याख्या, प्रश्नोत्तर मैत्रेयी पुष्पा साहित्यिक परिचय व्याख्या प्रश्नोत्तर ओम प्रकाश वाल्मीकि का साहित्यिक परिचय, व्याख्या, प्रश्न
MARCH 2025	आधुनिक काल गद्य), परिस्थितियाँ, हिंदी उपन्यास हिंदी कहानी हिंदी नाटक हिंदी निबंध उदभव और विकास द्विवेदी जुगुन गद्य साहित्य परिचय
APRIL 2025	पारिभाषिक शब्दावली अर्थ, स्वरूप, महत्व, गुण (विशेषताएँ) आवश्यकता पारिभाषिक शब्दावली के निर्माण में सक्रिय संप्रदाय पारिभाषिक शब्दावली निर्माण की परम्परा ॥

*Naresh*  
(Naresh Kumar)

## Lesson Plan

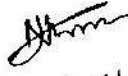
Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-NARESH KUMAR (EXT. LECTURER)

Class and Section:-B SC. 3<sup>RD</sup> Semester Session-2024-25

Subject:- Hindi

Week	Topics
July 2024	मैथिलीशरण गुप्त साहित्यिक परिचय
August 2024	मैथिलीशरण गुप्त की कविताओं की व्याख्या, जयशंकर प्रसाद का साहित्यिक परिचय
September 2024	जयशंकर प्रसाद की कविताओं की व्याख्या सूर्यकांत त्रिपाठी 'निराला' का जीवन परिचय, कविताओं की व्याख्या,
October 2024	रामधारी सिंह दिनकर का साहित्यिक परिचय कविताओं की व्याख्या, निबंध लेखन
November 2024	पत्र-लेखन, वैज्ञानिक शब्दावली
	4 <sup>TH</sup> SEMESTER
JAN 2025	रामकुमार वर्मा का साहित्यिक परिचय औरंगजेब की आखिरी रात' एकांकी सार, व्याख्या
FEB 2025	उपेन्द्रनाथ अशक साहित्यिक परिचय, लक्ष्मी का स्वागत' एकांकी व्याख्या (पत्र-लेखन] जगदीशचन्द्र माथुर लेखक परिचय रीढ़ की हड्डी' एकांकी व्याख्या ,
MARCH 2025	लक्ष्मी नारायण लेखक परिचय, वसंत ऋतु का नाटक एकांकी, व्याख्या ,विष्णु प्रभाकर लेखक परिचय, संस्कार और भावना एकांकी, व्याख्या
APRIL 2025	मोहन राकेश-लेखक परिचय' बहुत बड़ा सवाल एकांकी की व्याख्या, वैज्ञानिक शब्दावली

  
(NARESH KUMAR)

## Lesson Plan

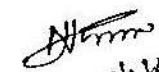
Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:- NARESH KUMAR (EXT. LECTURER) Class and

Section:- I Semester Session-2024-25

Subject:- Hindi ~~के~~ AEC : हिंदी भाषा सामान्य परिचय

Week	Topics
July 2024	हिंदी भाषा : उद्भव एवं विकास, पाठ्यक्रम परिचय ।
August 2024	हिंदी की उपभाषाएं एवं बोलियों का वर्गीकरण
September 2024	ब्रज, अपाही बोली का सामान्य परिचय एवं प्रवृत्तियाँ
October 2024	बड़ी बोली, सामान्य परिचय एवं प्रवृत्तियाँ Assignment and test.
November 2024	विश्लेषण ।

  
(Naresh Kumar)

## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:- NARESH KUMAR (EXT. LECTURER) Class and

Section:- I Semester Session-2024-25

Subject:- Hindi SEC ; कामलिपी हिंदी

Week	Topics
July 2024	पाठ्यक्रम परिचय, कामलिपी हिंदी अर्थ, स्वरूप, परिभाषा
August 2024	कामलिपी हिंदी का उद्देश्य कामलिपी हिंदी : स्थिति एवं संभावनाएं
September 2024	कामलिपी पत्राचार, कामलिपी पत्राचार के प्रकार : परिपत्र, ज्ञापना, सूचना आदेश।
October 2024	कामलिपी पत्राचार : सरकारी एवं अर्द्ध-सरकारी पत्र। class Test and Assignment.
November 2024	पाठ्यक्रम का विविजन।

*Naresh Kumar*  
(Naresh Kumar)

## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:- NARESH KUMAR (EXT. LECTURER) Class and

Section:- I Semester Session-2024-25

Subject:- Hindi ~~III~~ MDC : हिंदी सिनेमा अध्ययन

Week	Topics
July 2024	पाठ्यक्रम परिचय, हिंदी सिनेमा आधारभूत बातें
August 2024	हिंदी सिनेमा का उद्भव एवं विकास सिनेमा से संबंधित प्रमुख संस्थाएं
September 2024	सिनेमा निर्माण के केन्द्र सिनेमा और समाज सिनेमा और साहित्य का संबंध
October 2024	आरम्भिक हिंदी सिनेमा का स्वरूप हिंदी सिनेमा का रूढ़नी दौर Assignment and class test.
November 2024	हिंदी सिनेमा का वर्तमान परिदृश्य Revision

*(Naresh Kumar)*  
Naresh Kumar

## Lesson Plan


Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-) Dr. Shano Devi

Class and Section:- I Semester Session-2024-25

Subject:- Hindi MIC हिन्दी भाषा और व्याकरण

Week	Topics
July 2024	भाषा का अर्थ भाषा की परिभाषा भाषा का स्वरूप हिन्दी की वर्तमान व्यवस्था
August 2024	हिन्दी की मानक ध्वनियाँ स्वरों का वर्गीकरण व्यंजनों का वर्गीकरण समुद्देशन कार्य भाग-1
September 2024	हिन्दी की व्याकरणिक कोटियाँ संज्ञा सर्वनाम क्रिया विशेषण
October 2024	समुद्देशन कार्य-2 स्वतंत्र कक्षा टेस्ट हिन्दी की शब्द संरचना, संधि, समास, उपसर्ग प्रत्यय
November 2024	Revision

  
Dr. Shano Devi

## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:- Dr. Shano Devi

Class and Section:- I Semester Session-2024-25

Subject:- Hindi DSC कथाकार प्रेमचंद: एक विशेष अध्ययन

Week	Topics
July 2024	प्रेमचंद की कहानियाँ बड़े भाई साहब, नशा, ईदगाँव, पूस की रात कहानियाँ व्याख्या भाग
August 2024	ढोकर का कुआँ, दो खोलों की कथा, शतरंज के रिक्लाड़ी, लूट्टी काँची। व्याख्या भाग, समुद्देशन कार्य भाग-1.
September 2024	जीवन साहित्य, दार्शनिकता साहित्यिक अवधान
October 2024	समुद्देशन कार्य भाग-2. कथा के साहित्य की प्रगति निवेद्य अन्वय से रचना, साहित्य का उद्देश्य और कथा कला।
November 2024	Revision

Signature

## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-Dr. Shanno Devi

Class and Section:-BA III Semester Session-2024-25

Subject:- Hindi

Week	Topics
July 2023	पाठ्यक्रम परिचय, अयोध्यासिंह उपाध्याय हरिऔध साहित्यिक परिचय पवनदूती कविता का प्रतिपाद्य, व्याख्या
August 2024	पवनदूती की व्याख्या, प्रश्नोत्तर, मैथिलीशरण गुप्त साहित्यिक परिचय, जयद्रथ वध, भारत भारती, संदेश यहां में नहीं स्वर्ग का लाया व्याख्या, प्रश्नोत्तर जयशंकर प्रसाद साहित्यिक परिचय, आनंद सर्ग की व्याख्या, आंसू की व्याख्या व प्रश्नोत्तर
September 2024	सूर्यकांत त्रिपाठी निराला साहित्यिक परिचय, कविताओं की व्याख्या प्रश्नोत्तर, महादेवी वर्मा साहित्यिक परिचय, व्याख्या, प्रश्नोत्तर रामधारी सिंह दिनकर साहित्यिक परिचय व्याख्या, प्रश्नोत्तर भारतभूषण अग्रवाल साहित्यिक परिचय, व्याख्या प्रश्नोत्तर
October 2024	रीतिकाल एक परिचय, रीतिकाल की परिस्थितियाँ, नामकरण सीमा निर्धारण, रीतिबद्ध, रीतिसिद्ध, रीतिमुक्त काव्यधारा का परिचय एवम प्रवृत्तियाँ, रीतिकाल की उपलब्धि
November 2024	कम्प्यूटर: स्वरूप और महत्व ई-मेल: प्रेषण-ग्रहण, इंटरनेट: स्वरूप व उपयोगिता अनुवाद परिभाषा स्वरूप मशीनी अनुवाद
	SEMESTER IV
JAN 2025	पाठ्यक्रम-परिचय, प्रेमचंद का साहित्यिक परिचय, ईदगाह कहानी, कहानी की व्याख्या, प्रश्नोत्तर जयशंकर प्रसाद साहित्यिक परिचय, पुरस्कार कहानी व्याख्या, प्रश्नोत्तर अज्ञेय का साहित्यिक परिचय, गैंगीन कहानी, कहानी की व्याख्या
FEB 2025	गैंगीन कहानी के प्रश्नोत्तर, मोहन राकेश साहित्यिक परिचय, मलबे का मालिक कहानी, कहानी की व्याख्या, प्रश्नोत्तर रेणु का साहित्यिक परिचय व्याख्या, प्रश्नोत्तर मैत्रेयी पुष्पा साहित्यिक परिचय व्याख्या प्रश्नोत्तर ओम प्रकाश वाल्मीकि का साहित्यिक परिचय, व्याख्या, प्रश्न
MARCH 2025	आधुनिक काल गद्य), परिस्थितियाँ, हिंदी उपन्यास हिंदी कहानी हिंदी नाटक हिंदी निबंध उदभव और विकास द्विवेदी जुगौन गद्य साहित्य परिचय
APRIL 2025	पारिभाषिक शब्दावली अर्थ, स्वरूप, महत्व, गुण (विशेषताएँ) आवश्यकता पारिभाषिक शब्दावली के निर्माण में सक्रिय संप्रदाय पारिभाषिक शब्दावली निर्माण की परम्परा ॥





## Lesson Plan

Dr. B.R. Ambedkar Govt. College, Dabwali

Name of the Assistant Professor:-NARESH KUMAR (EXT. LECTURER) / Dr. Shama Devi

Class and Section:-BA 5th Semester Session-2014-15

Subject:- Hindi

Week	Topics
July 2014	अज्ञेय का साहित्यिक परिचय, कविताओं की व्याख्या
August 2019	अज्ञेय की कविताओं की व्याख्या, प्रश्नोत्तर, धर्मवीर भारती का साहित्यिक परिचय, कविताओं की व्याख्या, प्रश्नोत्तर, नरेश मेहता साहित्यिक परिचय, कविताओं की व्याख्या, नागार्जुन साहित्यिक परिचय, कविताओं की व्याख्या, प्रश्नोत्तर,
September 2014	रघुवीर सहाय साहित्यिक परिचय कविताओं की व्याख्या, प्रश्नोत्तर कुंवर नारायण व लीलाधर जगुड़ी का साहित्यिक परिचय, कविताओं की व्याख्या, प्रश्नोत्तर। Class test & assignment
October 2019	आधुनिक हिंदी साहित्य (कविता) आधुनिक हिंदी कविता का क्रमिक विकास, आधुनिक काल की परिस्थितियाँ, भारतेंदु युग, दिवेदी युग, छायावाद, प्रगतिवाद, प्रयोगवाद, नयी कविता, समकालीन कविता
November 2014	पत्र लेखन, संक्षेपण, पल्लवन
	6 <sup>th</sup> semester
JAN 2015	बालमुकुंद गुप्त साहित्यिक परिचय, आशा का अंत निबंध, निबंध की व्याख्या, प्रश्नोत्तर आचार्य रामचंद्र शुक्ल साहित्यिक परिचय, उत्साह निबंध, व्याख्या, प्रश्नोत्तर, महादेवी वर्मा साहित्यिक परिचय, गिल्लू निबंध, निबंध की व्याख्या प्रश्नोत्तर
FEB 2015	आचार्य हजारी प्रसाद द्विवेदी साहित्यिक परिचय, देवदारु, निबंध, निबंध की व्याख्या, प्रश्नोत्तर, श्रीविद्यानिवास मिश्र का साहित्यिक परिचय निबंध, निबंध की व्याख्या, प्रश्नोत्तर, हरिशंकर परसाई का साहित्यिक परिचय, निबंध सदाचार का ताबीज की व्याख्या, प्रश्नोत्तर, राहुल सांकृत्यायन का साहित्यिक परिचय, निबंध, निबंध की व्याख्या, प्रश्नोत्तर।
MARCH 2015	हरियाणवी भाषा उद्भव और विकास, हरियाणवी भाषा की प्रमुख बोलियाँ, हरियाणा की सांग परम्परा, हरियाणवी कविता, उपन्यास, कहानी नाट्य साहित्य
APRIL 2015	पत्रकारिता स्वरूप व प्रकार, शीर्षक रचना, संपादक के गुण और दायित्व, फीचर लेखन, स्वतंत्र प्रेस की अवधारणा


# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

Lesson Plan for the Session 2024 - 2025 (Semester...<sup>3<sup>rd</sup></sup>.....)

Name of the A.P./Extension Lecturer: .....Dr. Shano Devi.....

Class & Section:.....B.Com II<sup>nd</sup>..... Subject:.....Hindi.....

Sr. No.	Months	Topics
1	July 2024	मैथिलीशरण गुप्त जीवन परिचय, मलू मन्दिर, सुदामा, यशोधर सरिख सेवक, वीर अभिमन्यु, अतीत का गौरव गान, वैज्ञानिक शब्दावली 50 शब्द, वाणिज्य संकाय से जुड़े हए
2	Aug 2024	जयशंकर प्रसाद का जीवन परिचय, मधुमय देश हमारा, धीती विभावरी जागरी, खोलो खर, भारतवर्ष, अशोक की चिंता, काव्य भाग समुपदेशन काप-1
3	Sep. 2024	सूर्यकांत त्रिपाठी निराला, जीवन परिचय, काव्य भाग - वीणा वादिनी वर दे, ध्वनि, सैद निरखर वद गंधा दे, विधवा, भिक्षुक, व्यावसायिक शब्दावली '50 शब्द'
4	Oct. 2024	रामधारी सिंह दिनकर जीवन परिचय, काव्य भाग गीत-अगीत, गांधी, परम्भरा, जुड़ा पत्रा, आफ्नी, व्यावसायिक और व्यापारिक पत्र, व्यापारिक पत्र का प्रारूप, समुपदेशन काप-2 पुनरावृत्ति
5	Nov. 2024	सरकारी पत्र में अन्तर, लेखक विनमय पत्र, विभा-पत्र, कठों का निपटारा, दोषों का निपटारा प्रश्न-उत्तर पुनरावृत्ति
6		

  
Signature of the Teacher

## Dr. B R Ambedkar Govt. College, Dabwali

### Lesson Plan for B.A./B.Sc. Maths Classes (Odd Semester 2024-25)

Months	BM -232 : Partial Differential Equations BSc-II	BM -353 : Numerical Analysis B.A./BSc-III
July- August	Partial differential equations: Formation, order and degree. Linear and Non-Linear Partial differential equations of the first order. Complete solution, singular solution, General solution, Solution of Lagrange's linear equations, Charpit's general method of solution.	Finite Differences operators and their relations. Finding the missing terms and effect of error in a difference tabular values, Interpolation with equal intervals: Newton's forward and Newton's backward interpolation formulae. Interpolation with unequal intervals: Newton's divided difference, Lagrange's
September	Compatible systems of first order equations, Jacobi's method. Linear partial differential equations of second and higher orders, Linear and non-linear homogenous and non-homogenous equations with constant co-efficients, Partial differential equation with variable co-efficients reducible to equations with constant coefficients, their complimentary functions and particular Integrals, Equations reducible to linear equations with constant co-efficients.	Interpolation formulae, Hermite Formula, Central Differences: Gauss forward and Gauss's backward interpolation formulae, Sterling, Bessel Formula. Probability distribution of random variables, Binomial distribution, Poisson's distribution, Normal distribution: Mean, Variance and Fitting. Numerical Differentiation: Derivative of a function using interpolation formulae as studied in Sections –I & II.
October	Classification of linear partial differential equations of second order, Hyperbolic, parabolic and elliptic types, Reduction of second order linear partial differential equations to Canonical (Normal) forms and their solutions, Solution of linear hyperbolic equations, Monge's method for partial differential equations of second order. Cauchy's problem for second order partial differential equations,	Eigen Value Problems: Power method, Jacobi's method, Given's method, House- Holder's method, QR method, Lanczos method. Numerical Integration: Newton-Cote's Quadrature formula, Trapezoidal rule, Simpson's one-third and three-eighth rule, Chebychev formula, Gauss Quadrature formula.
November	Characteristic equations and characteristic curves of second order partial differential equation, Method of separation of variables: Solution of Laplace's equation, Wave equation (one and two dimensions), Diffusion (Heat) equation (one and two dimension) in Cartesian Co- ordinate system.	Numerical solution of ordinary differential equations: Single step methods- Picard's method. Taylor's series method, Euler's method, Runge-Kutta Methods. Multiple step methods; Predictor-corrector method, Modified Euler's method, Milne-Simpson's method.
December	Revision	Revision

**Dr. Manjeet Kumar**

**Assistant Professor of Mathematics**

**Dr. B.R. Ambedkar Govt. College, Dabwali**

**Lesson Plan for B. A/B. Sc Maths Classes (Odd Sem of 2024-25)**

Class & Subject	B. Sc/B. A - I Calculus	B. Sc/B. A – II Advanced Calculus	B. Sc/B. A – III Real Analysis
July, 2024	$\epsilon$ - $\delta$ definition of limit and continuity of a real valued function, Basic properties of limits, Types of discontinuities, Differentiability of functions,	Continuity, Uniform continuity, Mean value theorems; Rolle's theorem and Lagrange's mean value theorem and their geometrical interpretations. Taylor's theorem with various form of remainders, Darboux intermediate value theorem for derivatives, Indeterminate forms.	Partition, Refinement of a Partition, Upper and Lower Sums, Oscillatory Sum, Riemann Integral, Darboux's Theorems, Condition of Integrability, Integrability of functions, Riemann Sum, Second Definition of Integrability
Aug, 2024	Application of L'Hospital rule to indeterminate forms, Successive differentiation, Leibnitz theorem, Taylor's and Maclaurin's series expansion with different forms of remainder. Asymptotes: Horizontal, vertical and oblique asymptotes for algebraic curves, Asymptotes for polar curves, Intersection of a curve and its asymptotes,	Limit and continuity of real valued functions of two variables. Partial differentiation. Total differentials; Composite functions and implicit functions. Change of variables. Homogeneous functions and Euler's theorem on homogeneous functions. Taylor's theorem for functions of two variables.	Properties of Riemann Integral, Primitive of a Function, Fundamental Theorem of Integral Calculus, Mean Value Theorems of Integral Calculus, Improper Integral, Types of Improper Integral, Converges of Improper Integral, Absolute Convergence, Cauchy's Test, Abel's Test for Convergence, Dirichlet's Test for Convergence, Frullani's Integral
Sept, 2024	Curvature and radius of curvature of curves (cartesian, parametric, polar & intrinsic forms), Newton's method, Centre of curvature and circle of curvature.	Differentiability of real valued functions of two variables. Schwarz and Young's theorem. Implicit function theorem. Maxima, Minima and saddle points of two variables. Lagrange's method of multipliers	Definition and examples of metric spaces, Induced Metric, Semi-Metric Spaces, Open and Closed sets in Metric Spaces

Oct, 2024	Multiple points, Node, Cusp, Conjugate point, Tests for concavity and convexity, Points of inflexion, Tracing of curves, Reduction formulae, Rectification, intrinsic equation of a curve, Quadrature,	Curves: Tangents, Principal normals, Binormals, Serret-Frenet formulae, Locus of the centre of curvature, Spherical curvature, Locus of centre of spherical curvature, Involutives, Evolutes, Bertrand curves.	Completeness in Metric Spaces, Continuous functions and Uniform Continuity and Compactness Metric Space
Nov, 204	Area bounded by closed curves, Volumes and surfaces of solids of revolution, Revision	Surfaces: Tangent planes, one parameter family of surfaces, Envelopes, Revision	Compactness and Connectedness in Metric Spaces, Revision

Recommended Text Books

- 1) Calculus – Jeevansons Publications.
- 2) Advanced Calculus – Jeevansons Publications.
- 3) Real Analysis – Jeevansons Publications.

Teacher:

*Pradeep Kaswan*

Dr Pradeep Kaswan,  
Assistant Prof. Of Mathematics

## LESSON PLANNING (Session: 2024-2025)

Name of Assistant Professor/Associate Professor: Pradeep Bishnoi

Class: B.Sc.-II/B.A.II

Semester: ODD

Subject: Mathematics- STATICS

Lesson Plan: 17 Weeks (From July 2024 to Nov 2024)

- Week 1- Date 22/07/2024  
Basics: Forces acting at a point- Introduction, Force, Tension, Thrust, Classification of Forces.  
Chapter 1: Forces acting at a point- Resultant of Forces, Resultant of forces, Examples, Resolution of Forces, Examples
- Week 2- Date 29/07/2024  
Chapter 1: Forces acting at a point- Triangle Law of Force,  $\lambda - \mu$  Theorem, Examples, Lami's Theorem, Polygon Law of Forces, Theorems on Resolved parts
- Week 3- Date 05/08/2024  
Chapter 1: Forces acting at a point- Conditions of Equilibrium, Equilibrium on inclined Plane, Examples  
Chapter 2: Parallel Forces - Resultant of Like Parallel Forces
- Week 4- Date 12/08/2024  
Chapter 2: Parallel Forces - Resultant of Unlike Parallel Forces, Examples  
Chapter 3: Moments- Definition, Meaning, Examples, Varignon's Theorem, Generalization of Varignon's Theorem, Theorems on Resultant of Forces, Examples, Centre of Parallel Forces using Moments
- Week 5- Date 20/08/2024  
Chapter 3: Moments- Moment about a Line, Examples, Assignment
- Week 6- Date 27/08/2024  
Chapter 4: Couples - Definition, Moment and Sign of Moment of a Couple, Theorems on Moment of Couples, Theorems on Equilibrium and Resultant of Couples, Theorems on Force and Couple, Examples
- Week 7- Date 02/09/2024  
Chapter 5: Analytical conditions of Equilibrium of Co-planar Forces- Theorems on Equilibrium of three forces, Trigonometrical Theorem, Examples
- Week 8- Date 09/09/2024  
Chapter 5: Analytical conditions of Equilibrium of Co-planar Forces- Theorems on conditions of Equilibrium of coplanar forces, Examples
- Week 9- Date 16/09/2024  
Chapter 5: Analytical conditions of Equilibrium of Co-planar Forces- Examples on conditions of Equilibrium of coplanar forces, Class test
- Week 10- Date 24/09/2024  
Chapter 6: Friction- Definition, Stages and Kinds of Friction, Laws of Friction, Angle and Cone of Friction, Theorems on equilibrium considering force of Friction
- Week 11- Date 30/09/2024  
Chapter 6: Friction- Examples on equilibrium of bodies considering force of Friction
- Week 12- Date 07/10/2024  
Chapter 7: Centre of Gravity - Definition - Centre of Gravity, Results on Centre of Gravity, Examples, Centre of Gravity by Integration, Examples, Assignment
- Week 13- Date 14/10/2024  
Chapter 8: Virtual Work- Theorems on Principle of Virtual Work in case of a Rigid Body, Examples
- Week 14- Date 21/10/2024  
Chapter 9: Forces in Three Dimensions- Law of Parallelepiped of Forces, Axis of a Couple, Resultant of Concurrent Forces in Three Dimensions, Poinsot's Central Axis, Equation of Central Axis, Examples
- Week 15- Date 04/11/2024  
Chapter 10: Wrenches- Definition, Theorems, Examples on Wrench
- Chapter 11: Null lines and Null planes- Definition and Theorems on Null line
- Week 16- Date 11/11/2024  
Chapter 11: Null lines and Null planes- Theorems on Null plane, Examples
- Chapter 12: Stable, Unstable and Neutral Equilibrium- Equilibrium, States of Equilibrium and Conditions of Stability
- Week 17- Date 18/11/2024  
Chapter 12: Stable, Unstable and Neutral Equilibrium- Theorems on Stable, Unstable and Neutral Equilibrium

Mx . 2024

## LESSON PLANNING (Session: 2024-2025)

Name of Assistant Professor/Associate Professor: Pradeep Bishnoi

Class and Section: B.Sc.-III/B.A.-III

Semester: ODD

Subject: Mathematics - GROUPS and RINGS

Lesson Plan: 17 Weeks (From July 2024 to Nov 2024)

Week 1- Date 22/07/2024

Chapter 1: Groups and Subgroups- Introduction, Binary composition, Properties of Binary operation, definition of Group, Examples of Group, Theorems on Group

Week 2- Date 29/07/2024

Chapter 1: Groups and Subgroups- Definition of Subgroup, Theorems on subgroup, Examples on subgroup

Week 3- Date 05/08/2024

Chapter 1: Groups and Subgroups- Definition- Cyclic group and Examples, Theorems on Cyclic groups

Chapter 2: Cosets - Definition, Examples, Theorems on Cosets, Equivalence Class, Lagrange's Theorem

Week 4- Date 12/08/2024

Chapter 2: Cosets- Theorems on Normal subgroup, Quotient groups, Theorems on Quotient groups

Chapter 3: Homomorphisms and Automorphisms- Definition of Homomorphism and Automorphism, Theorems, Examples, Kernel of Homomorphism, Theorems on Isomorphism

Week 5- Date 20/08/2024

Chapter 3: Homomorphisms and Automorphisms - Group of Automorphisms, Inner Automorphism, Examples, Group of Automorphisms of Cyclic groups, Centre of Group, Theorems on Centre of group

Week 6- Date 27/08/2024

Chapter 3: Homomorphisms and Automorphisms - Examples on Centre of group, Characteristic subgroups and Normalizer of an Element, Commutator, Assignment

Week 7- Date 02/09/2024

Chapter 4: Permutation Groups- Definition, Properties, Examples of Permutation, Cyclic Permutation, Transposition and Disjoint Cycles, Even and Odd permutation, Alternating Group, Cayley's Theorem

Week 8- Date 09/09/2024

Chapter 5: Rings and Fields- Definition, Examples of Rings, Integral Domain, Field, Theorems, Examples

Week 9- Date 16/09/2024

Chapter 5: Rings and Fields- Subring, Theorems, Centre of a Ring, Examples, Characteristic of a Ring, Examples, Theorems, Class test

Week 10- Date 24/09/2024

Chapter 6: Ideals and Quotient Rings- Definitions of Ideals, Examples, Theorems on Ideals, Product of Ideals, Simple Ring, Principal Ideal, Assignment

Week 11- Date 30/09/2024

Chapter 6: Ideals and Quotient Rings- Theorems on Principal Ideal Ring and Principal Ideal Domain, Examples, Maximal Ideal and Prime Ideal, Examples, Quotient Rings

Week 12- Date 07/10/2024

Chapter 7: Homomorphisms of Rings- Ring Homomorphism, Theorems, Examples on Ring Homomorphism, Kernel of Homomorphism, Theorems, Examples, Embedding of Rings

Week 13- Date 14/10/2024

Chapter 8: Euclidean Rings- Definitions, Euclidean Rings, Theorems, Examples - Principal Ideal Domain

Week 14- Date 21/10/2024

Chapter 8: Euclidean Rings- Examples and Theorems on PID

Week 15- Date 04/11/2024

Chapter 9: Polynomial Rings- Definition, Examples, Theorems, Polynomial Ring over a Ring, Embedding of Ring into Polynomial Ring

Week 16- Date 11/11/2024

Chapter 9: Polynomial Rings- Polynomials over a Field, Divisibility of Polynomials, UFD

Week 17- Date 18/11/2024

Chapter 9: Polynomial Rings- Theorems on UFD, Primitive polynomial, Gauss Lemma, Related Theorems, Eisenstein's Irreducibility Criterion, Examples

*Pradeep Bishnoi*

# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

Lesson Plan for the Session 2024- 2025 (Semester 1st)

Name of the Assistant Professor: Dr. Sunil Kumar

Class & Section: B Sc-I Subject: Physics

Sr. No.	Months	Topics
1	July	<b>Fundamentals of Dynamics:</b> Reference frames, Inertial and non-inertial frames of references, Conservative and non-conservative forces, fictitious forces.
2	August	<b>Special Theory of Relativity:</b> Michelson-Morley Experiment and its outcome, Galilean transformation (velocity, acceleration) and its inadequacy, Postulates of Special Theory of Relativity, Lorentz Transformations, simultaneity, Lorentz contraction, Time dilation, Relativistic transformation of velocity, frequency and wave number, Relativistic addition of velocities, Variation of mass with velocity.
3	September	<b>Rotational Dynamics:</b> Equation of motion of a rigid body, Rotational motion of a rigid body in general and that of plane lamina, Rotation of angular momentum vector about a fixed axis, Angular momentum and kinetic energy of a rigid body about principal axis, Torque, Principle of conservation of angular momentum, Moment of Inertia (discrete and continuous), Calculation of moment of inertia for rectangular, cylindrical and spherical bodies, Kinetic energy of rotation, Motion involving both translation and rotation, elementary Gyroscope.
4	October	<b>Fundamentals of Dynamics:</b> Concept of potential energy, Energy diagram. Stable and unstable equilibrium, Elastic potential energy, Force as gradient of potential energy, Work & Potential energy, Impulse, Centre of Mass for a system of particles, Motion of centre of mass (discrete and continuous), Expression for kinetic energy, Linear momentum and angular momentum for a system of particles in terms of centre of mass values. <b>Collisions:</b> Elastic and inelastic collisions between particles, Centre of Mass and Laboratory frames.
5	November	<b>Inverse Square Law Force:</b> Forces in nature (qualitative), Central forces, Law of gravitation, Gravitational potential energy, Inertial and gravitational mass.

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# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

*Lesson Plan for the Session 2024- 2025* (Semester 3rd)

Name of the Assistant Professor: Dr. Sunil Kumar

Class & Section: B Sc-II Subject: Physics (PH-301 & PH-302)

Sr. No.	Months	Topics
1	July	<b>Computer Programming and Thermodynamics</b> <b>Computer Programming</b> Computer organization, Binary representation, Algorithm development, Flow charts and their interpretation. FORTRAN Preliminaries: Integer and floating point arithmetic expression, built in functions, executable and non-executable statements, input and output statements, Formats, IF, DO and GO TO statements, Dimension arrays, statement function and function subprogram.
2	August	<b>Applications of FORTRAN programming</b> Algorithm, Flow Chart and Programming for Print out of natural numbers, Range of the set of given numbers, Ascending and descending order, Mean and standard deviation, Least square fitting of curve, Roots of quadratic equation, Product of two matrices, Numerical integration (Trapezoidal rule and Simpson 1/3 rule). <b>Thermodynamics-I</b> Thermodynamic system and Zeroth law of thermodynamics. First law of thermodynamics and its limitations, reversible and irreversible process. Second law of thermodynamics and its significance, Carnot theorem, Absolute scale of temperature, Absolute Zero and magnitude of each division on work scale and perfect gas scale.
3	September	<b>Thermodynamics- I &amp; II</b> Joule's free expansion, Joule Thomson effect, Joule-Thomson (Porous plug) experiment, conclusions and explanation, analytical treatment of Joule Thomson effect. Entropy, calculations of entropy of reversible and irreversible process, T-S diagram, entropy of a perfect gas, Nernst heat law(third law of thermodynamics), Liquefaction of gases, (oxygen, air, hydrogen and helium), Solidification of He below 4K, Cooling by adiabatic demagnetization. Derivation of Clausius-Clapeyron and Clausius latent heat equation and their significance, specific heat of saturated vapours, phase diagram and triple point of a substance, development of Maxwell thermodynamical relations. Thermodynamical functions: Internal energy (U), Helmholtz function (F), Enthalpy (H), Gibbs function (G) and the relations between them, derivation of Maxwell thermodynamical relations from thermodynamical functions, Application of Maxwell relations: relations between two specific heats of gas, Derivation of Clausius-Clapeyron and Clausius equation, variation of intrinsic energy with volume for (i) perfect gas (ii)Vanderwall gas (iii)solids and liquids , derivation of Stefans law, adiabatic compression and expansion of gas & deduction of theory of Joule Thomson effect.

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		<p><b>Wave and optics I</b></p> <p><b>Interference -I</b></p> <p><b>Interference by Division of Wave front:</b> Young's double slit experiment, Coherence, Conditions of interference, Fresnel's biprism and its applications to determine the wavelength of sodium light and thickness of a mica sheet, Lloyd's mirror, Difference between Bi-prism and Lloyd mirror fringes, phase change on reflection.</p>
4	October	<p><b>Interference -II</b></p> <p><b>Interference by Division of Amplitude:</b> Plane parallel thin film, production of colors in thin films, classification of fringes in films, Interference due to transmitted light and reflected light, wedge shaped film, Newton's rings, Interferometer: Michelson's interferometer and its applications to (i) Standardization of a meter (ii) determination of wavelength.</p> <p><b>Diffraction I</b></p> <p>Fresnel's diffraction: Fresnel's assumptions and half period zones, rectilinear propagation of light, zone plate, diffraction at a straight edge, rectangular slit and circular aperture, diffraction due to a narrow slit and wire.</p>
5	November	<p><b>Diffraction II</b></p> <p>Fraunhofer diffraction: single-slit diffraction, double-slit diffraction, N-slit diffraction, plane transmission grating spectrum, dispersive power of grating, limit of resolution, Rayleigh's criterion, resolving power of telescope and a grating. Differences between prism and grating spectra.</p>

# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

Lesson Plan for the Session 2024- 2025 (Semester 5th)

Name of the Assistant Professor: Dr. Sunil Kumar

Class & Section: B Sc-III Subject: Physics (PH-501 & PH-502)

Sr. No.	Months	Topics
1	July	<b>Nuclear Structure and Properties of Nuclei</b> Nuclear composition (p-e and p-n hypotheses), Nuclear properties; Nuclear size, spin, parity, statistics, magnetic dipole moment, quadruple moment (shape concept). Determination of mass by Bain-Bridge, Bain-Bridge and Jordan mass spectrograph. Determination of charge by Mosley Law. Determination of size of nuclei by Rutherford Back Scattering. mass and binding energy, systematic of nuclear binding energy, nuclear stability
2	August	<b>Radiation interaction</b> Interaction of heavy charged particles (Alpha particles); Energy loss of heavy charged particle (idea of Bethe formula, no derivation), Range and straggling of alpha particles. Geiger-Nuttal law. <b>Radiation interaction</b> Interaction of light charged particle (Beta-particle), Energy loss of beta-particles (ionization), Range of electrons, absorption of beta-particles. Interaction of Gamma Ray; Passage of Gamma radiations through matter (Photoelectric, Compton and pair production effect) electron-positron annihilation. Absorption of Gamma rays (Mass attenuation coefficient) and its application. <b>Nuclear Radiation decay Processes</b> Alpha-disintegration and its theory. Energetics of alpha-decay, Origin of continuous beta spectrum (neutrino hypothesis), types of beta-decay and energetics of beta-decay. Nature of gamma rays, Energetics of gamma rays. <b>Nuclear Accelerators</b> Linear accelerator, Tendem accelerator, Cyclotron and Betatron accelerators. <b>Nuclear reactions.</b> Nuclear reactions, Elastic scattering, Inelastic scattering, Nuclear disintegration, Photonuclear reaction, Radiative capture, Direct reaction, Heavy ion reactions and spallation Reactions. Conservation laws, Q-value and reaction threshold.
3	September	<b>Nuclear Reactors.</b> Nuclear Reactors, General aspects of Reactor Design. Nuclear fission and fusion reactors, (Principle, construction, working and use). <b>Quantum and Laser Physics</b> <b>Origin quantum physics (Experimental basis)</b> Overview, scale of quantum physics, boundary between classical and quantum phenomena, Photon, Photoelectric effect, Compton effect (theory and result), Frank-Hertz experiment, de-Broglie hypothesis. Davisson and Germer experiment, G.P. Thomson experiment. Phase velocity, group velocity and their relation. Heisenberg's

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		<p>uncertainty principle. Time energy and angular momentum, position uncertainty. Uncertainty principle from de Broglie wave. (Wave-particle duality). Gamma Ray Microscope, Electron diffraction from a slit. Derivation of 1-D time-dependent Schrodinger wave equation (subject to force, free particle). Time-independent Schrodinger wave equation, eigen values, eigen functions, wave functions and its significance. Orthogonality and Normalization of function, concept of observer and operator. Expectation values of dynamical quantities, probability current.</p>
4	October	<p><b>Application of Schrodinger wave equation:</b></p> <p>(i) Free particle in one-dimensional box (solution of Schrodinger wave equation, eigen functions, eigen values, quantization of energy and momentum, nodes and anti-nodes, zero point energy).</p> <p>(ii) One dimensional step potential <math>E &gt; V_0</math> (Reflection and Transmission coefficient)</p> <p>(iii) One dimensional step potential <math>E &lt; V_0</math> (penetration depth calculation).</p> <p>(iv) One dimensional potential barrier, <math>E &gt; V_0</math> (Reflection and Transmission coefficient)</p> <p>(v) One-dimensional potential barrier, <math>E &lt; V_0</math> (penetration or tunneling coefficient).</p> <p>(vi) Solution of Schrodinger equation for harmonic oscillator (quantization of energy, Zero-point energy, wave equation for ground state and excited states).</p> <p><b>Laser Physics –I</b></p> <p>Absorption and emission of radiation, Main features of a laser: Directionality, high intensity, high degree of coherence, spatial and temporal coherence, Einstein's coefficients and possibility of amplification, momentum transfer, life time of a level, kinetics of optical absorption ((two and three level rate equation, Fuchbauer landerburg formula).population inversion: A necessary condition for light amplification, resonance cavity, laser pumping, Threshold condition for laser emission, line broadening mechanism, homogeneous and inhomogeneous line broadening (natural, collision and Doppler broadening).</p>
5	November	<p><b>Laser Physics – II</b></p> <p>He-Ne laser and RUBY laser (Principle, Construction and working), Optical properties of semiconductor, Semiconductor laser (Principle, Construction and working), Applications of lasers in the field of medicine and industry.</p> <p><b>Nuclear Radiation Detectors.</b></p> <p>Gas filled counters; Ionization chamber, proportional counter, G.M. Counter (detailed study), Scintillation counter and semiconductor detector.</p>

# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

## *Lesson plan for the Session 2024-25*

Name of the Assistant/Associate Professor: Anju Goyal

Class: B.A. I

Semester-1

Subject: Micro Economics

Sr. No.	Month	Topic
1	July	<b>Nature and Scope of Economics:</b> Meaning of Economics; Nature of Economics; Scope of Economics; Methods of Economics; Why Study Economics? <b>Role of an Economist:</b> Thinking Like an Economist; The Economist as Scientist; The Economist as Policy Adviser; Economic Policy
2	August	<b>Economic Activities and Systems:</b> Types of Economic Activities; Organisation of Economic Activities; Evolution of the Present Economic Systems <b>Firms and Households:</b> Meaning of Firms and Household; Relationship Between Firms and Household; Input Markets; Output Markets; Circular Flow of Economic Activities (Two-Sector). <b>Demand and Supply:</b> Individual Demand; Market Demand; Law of Demand; Types of Goods (Normal, Inferior, and Giffen); Demand Determinants; Supply and its Determinants; Law of Supply; Market Equilibrium
3	September	<b>Elasticity and its Measurement:</b> Types of Elasticity of Demand and Supply; Price, Income and Cross Elasticity; Measurement of Elasticity of Demand; <b>Determinants of Elasticity of Demand Consumer Equilibrium:</b> Cardinal Utility Analysis (Law of Diminishing Marginal Utility, Law of Equi- Marginal Utility); Ordinal Utility Analysis (Indifference Curve, Properties of Indifference Curve, Budget Line, Equilibrium of Consumer); Consumer Surplus (Marshall & Hicks)
4	October	<b>Production Analysis:</b> Production Function-Short Run and Long Run; Total Product; Marginal Product; Average Product; Law of Returns to Factor (Law of Variable Proportions); Law of Returns to Scale (Increasing, Decreasing and Constant) <b>Cost and Revenue Analysis:</b> Fixed and Variable Costs, Opportunity Cost, Implicit and Explicit Costs, Real and Monetary Costs; Traditional short-run and long run cost curves and their interrelation; TR, MR, AR and their relationships
5	November	Practice Revision



# Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)

## *Lesson plan for the Session 2024-25*

Name of the Assistant/Associate Professor: Anju Goyal

Class: B.A. II

Subject: Macro Economics

Sr. No.	Month	Topic
1	July	Introduction to Macroeconomics and National Income: Macroeconomics and Open Macroeconomics, Scope, Meaning, importance; and Limitations. Concepts of National Income including Potential GDP; Measurement of National Income: Product Method; Income Method, Expenditure Method; their Importance and Limitations.
2	August	Determination of Income and Employment: Say's Law of Market; Classical Theory of Employment; Keynesian Theory of Employment; Comparison between Classical and Keynesian Theory; Consumption Function and its Determinants; Psychological Law at Consumption; Investment Function: Meaning, Kinds and Determinants; Marginal Efficiency of Capital; Investment Multiplier; Accelerator
3	September	Monetary System: The Demand and Supply of Money: Concepts, Functions, and Significance; Quantity Theory of Money; Fisher's Approach and Cambridge Quantity Theory; Keynesian Liquidity Theory of Money; Meaning and Determinants; Measuring the Money Supply. Banking: Functions of Central Banks; Function of Commercial Banks; Recent Reforms in Banking Sector.
4	October	Index Number: Meaning, Uses, Types, Methods of Constructing. Index Number (Laspeyres's Method, Paasche's Method and Fisher Method) and Problems in the Construction of Index Number.
5	November	Practice Revision

**Dr. B.R. Ambedkar Govt. College Dabwali (Sirsa)**

***Lesson plan for the Session 2024-25***

**Name of the Assistant/Associate Professor: Anju Goyal**

**Class: B.A.III**

**Subject: Development Economics**

<b>Sr. No.</b>	<b>Month</b>	<b>Topic</b>
<b>1</b>	<b>July</b>	Meaning of Economic growth and development: determinants of Economic Development.
<b>2</b>	<b>August</b>	HDI& PQLI-Measurement of Economic development; obstacles of Economic development; a vicious circle of poverty. Development with an unlimited supply of labour (Lewis Model): Big Push Theory; Balanced and unbalanced growth; Critical minimum effort thesis (Leibenstein Theory).
<b>3</b>	<b>September</b>	Environment as a necessity and luxury; Population-environment linkage; Market failure in case of environmental Goods; Prevention and Control of Pollution, Environment legislation (1986), Meaning and importance of sustainable Development.
<b>4</b>	<b>October</b>	Meaning of Regression, Difference between correlation and regression, types of regression, Regression lines of X on Y and Y on X.
<b>5</b>	<b>November</b>	<b>Practice Revision</b>