

### LESSON PLAN 2022-2023

Subject: Chemistry

Faculty: Dr. Alka

Class :B.Sc.I year (1<sup>st</sup> Sem)

<b>Jul 2022 ( Week 4) &amp; Aug. 2022 ( Week 1)</b>	<b>Structure and Bonding</b> Localized and delocalized chemical bond, van der Waals in teractions, resonance: conditions, resonance effect and its applications, hyperconjugation, inductive effect, Electromeric effect & their comparison.
<b>Aug 2022</b>	<b>Week 2: Mechanism of Organic Reactions</b> Curved arrow notation, drawing electron movements with arrows, half-headed and double-headed arrows, homolytic and heterolytic bond breaking. Types of reagents – electrophiles and nucleophiles. Types of organic reactions. Energy considerations. Reactive intermediates carbocations, carbanions, free radicals, carbenes, arynes and nitrenes (formation, structure & stability). Assigning formal charges on intermediates and other ionic species.  <b>Week 3: Atomic Structure</b> Idea of de Broglie matter waves, Heisenberg uncertainty principle, atomic orbitals, quantum numbers, radial and angular wave functions and probability distribution curves, shapes of s, p, d orbitals.  <b>Week 4: Alkanes and Cycloalkanes</b> IUPAC nomenclature of branched and unbranched alkanes, the alkyl group, classification of carbon atoms in alkanes. Isomerism in alkanes, sources, methods of formation (with special reference to Wurtz reaction, Kolbe reaction, Corey-House reaction and decarboxylation of carboxylic acids), physical properties. Cycloalkanes nomenclature, synthesis of cycloalkanes and their derivatives – photochemical (2+2) cycloaddition reactions, dehalogenation of dihalides, pyrolysis of calcium or barium salts of dicarboxylic acids, Baeyer's strain theory and its limitations., theory of strainless rings.
<b>Sept 2022</b>	<b>Week 1 &amp; 2: Periodic Properties</b> General principles of periodic table: Aufbau and Pauli exclusion principles, Hund's multiplicity rule. Electronic configurations of the elements, effective nuclear charge, Slater's rules. Atomic and ionic radii, ionization energy, electron affinity and electronegativity – definition, methods of determination or evaluation, trends in periodic table (in s & p block elements).  <b>Week 2 &amp; 3: Stereochemistry of Organic Compounds-I</b> Concept of isomerism. Types of isomerism. Optical isomerism elements of symmetry, molecular chirality, enantiomers, stereogenic centre, optical activity, properties of enantiomers, chiral and achiral molecules with two

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stereogenic centres, diastereomers, threo and erythro diastereomers, meso compounds, resolution of enantiomers, inversion, retention and racemization.

**Week 4: Stereochemistry of Organic Compounds-II**

Relative and absolute configuration, sequence rules, R & S systems of nomenclature. Geometric isomerism determination of configuration of geometric isomers. E & Z system of nomenclature. Conformational isomerism conformational analysis of ethane and n-butane, conformations of cyclohexane, axial and equatorial bonds, Newman projection and Sawhorse formulae, Difference between configuration and conformation.

Oct. 2022

**Week 1: Covalent Bond**

Valence bond theory and its limitations, directional characteristics of covalent bond, various types of hybridization and shapes of simple inorganic molecules and ions ( BeF<sub>2</sub>, BF<sub>3</sub>, CH<sub>4</sub>, PF<sub>5</sub>, SF<sub>6</sub>, IF<sub>7</sub> SO<sub>4</sub><sup>2-</sup>, ClO<sub>4</sub><sup>-</sup>) Valence shell electron pair repulsion (VSEPR) theory to NH<sub>3</sub>, H<sub>3</sub>O<sup>+</sup>, SF<sub>4</sub>, ClF<sub>3</sub>, ICl<sub>2</sub><sup>-</sup> and H<sub>2</sub>O. MO theory of heteronuclear (CO and NO) diatomic.

**Week 2: Ionic Solids**

Ionic structures (NaCl, CsCl, ZnS (Zinc Blende), CaF<sub>2</sub>) radius ratio effect and coordination number, limitation of radius ratio rule, lattice defects, semiconductors, lattice energy (mathematical derivation excluded) and Born-Haber cycle, solvation energy and its relation with solubility of ionic solids, polarizing power and polarisability of ions, Fajan's rule.

**Week 3: Gaseous States**

Maxwell's distribution of velocities and energies (derivation excluded) Calculation of root mean square velocity, average velocity and most probable velocity. Collision diameter, collision number, collision frequency and mean free path. Deviation of Real gases from ideal behaviour. Assignment given to students

**Week 4:**

Derivation of Vander Waal's Equation of State, its application in the calculation of Boyle's temperature (compression factor) Explanation of behaviour of real gases using Vander Waal's equation.

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Nov. 2022	<p><b>Week 1:</b></p> <p><b>Critical Phenomenon:</b> Critical temperature, Critical pressure, critical volume and their determination. PV isotherms of real gases, continuity of states, the isotherms of Vander Waal's equation, Relationship between critical constants and Vander Waal's constants. Critical compressibility factor. The Law of corresponding states. Lequifaction of gases.</p> <p><b>Week 2: Liquid States</b> Structure of liquids. Properties of liquids – surface tension, viscosity vapour pressure and optical rotations and their determination.</p> <p><b>Week 3: Solid State</b> Classification of solids, Laws of crystallography – (i) Law of constancy of interfacial angles (ii) Law of rationality of indices (iii) Law of symmetry. Symmetry elements of crystals. Definition of unit cell &amp; space lattice. Bravais lattices, crystal system. Xray diffraction by crystals.</p> <p><b>Week 4:</b> Derivation of Bragg equation. Determination of crystal structure of NaCl, KCl. Liquid crystals: Difference between solids, liquids and liquid crystals, types of liquid crystals. Applications of liquid crystals.</p>
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Lesson Plan (2022-23)

B.Sc. 3<sup>rd</sup> Semester

INORGANIC CHEMISTRY	
Topics	Time Period
SECTION A Chemistry of Elements of 1st transition series: Definition of transition elements, position in the periodic table, General characteristics & properties of 1st transition elements, Structures & properties of some compounds of transition elements – $TiO_2$ , $VOCl_2$ , $FeCl_3$ , $CuCl_2$ and $Ni(CO)_4$	01 Aug-06 Aug
Section-B Chemistry of Elements of II <sup>nd</sup> & III <sup>rd</sup> transition series General characteristics and properties of the II <sup>nd</sup> and III <sup>rd</sup> transition elements Comparison of properties of 3d elements with 4d & 5d elements with reference only to ionic radii, oxidation state, magnetic and Spectral properties and stereochemistry	08 Aug-13 Aug
Section-C Coordination Compounds Werner's coordination theory, effective atomic number concept, chelates, nomenclature of coordination compounds, isomerism in coordination compounds, valence bond theory of transition metal complexes	16 Aug-23 Aug
Section-D Non-aqueous Solvents Physical properties of a solvent, types of solvents and their general characteristics, reactions in non-aqueous solvents with reference to liquid $NH_3$ and liquid $SO_2$	24 Aug-31 Aug
Doubt sessions and revisions.	12 Dec-17 Dec

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Lesson Plan  
B.Sc. 3<sup>rd</sup> Semester

<b>PHYSICAL CHEMISTRY</b>	
<b>Topics</b>	<b>Time Period</b>
<p><b>SECTION – A</b> Thermodynamics-I Definition of thermodynamic terms: system, surrounding etc. Types of systems, intensive and extensive properties. State and path functions and their differentials. Thermodynamic process. Concept of heat and work. Zeroth Law of thermodynamics, First law of thermodynamics: statement, definition of internal energy and enthalpy. Heat capacity, heat capacities at constant volume and pressure and their relationship, Joule's law – Joule – Thomson coefficient for ideal gas and real gas: and inversion temperature.</p>	01 sep- 10 sep
<p><b>SECTION – B</b> Thermodynamics-II Calculation of w.q. <math>dU</math> &amp; <math>dH</math> for the expansion of ideal gases under isothermal and adiabatic conditions for reversible process. Temperature dependence of enthalpy, Kirchoffs equation. Bond energies and applications of bond energies</p>	12 Sep-24 Sep
<p><b>SECTION – C</b> Chemical Equilibrium Equilibrium constant and free energy, concept of chemical potential, Thermodynamic derivation of law of chemical equilibrium. Temperature dependence of equilibrium constant; Van't Hoff reaction isochore, Van't Hoff reaction isotherm. Le-Chatelier's principle and its applications Clapeyron equation and Clausius – Clapeyron equation its applications. SECTION</p>	26 Sep-08 Oct
<p><b>SECTION – D</b> Distribution Law Nernst distribution law – its thermodynamic derivation, Modification of distribution law when solute undergoes dissociation, association and chemical combination. Applications of distribution law: (i) Determination of degree of hydrolysis and hydrolysis constant of aniline hydrochloride. (ii) Determination of equilibrium constant of potassium tri-iodide complex and process of extraction</p>	10 oct-21 Oct

Revision and doubt sessions till exams.

19Dec-24 Dec

B.Sc. 3<sup>rd</sup> Semester

ORGANIC CHEMISTRY	
Topics	Time Period
Section-A 1. Alcohols 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> ] and pinacol-pinacolone rearrangement. 2. Epoxides Synthesis of epoxides. Acid and base-catalyzed ring opening of epoxides, orientation of epoxide ring opening, reactions of Grignard and organolithium reagents with epoxides	27 Oct-5 Nov
Section-B Phenols 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.	07 Nov-19 Nov

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<p>Section-C</p> <p>Ultraviolet (UV) absorption spectroscopy 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 dienes and <math>\alpha, \beta</math>-unsaturated ketones. calculation of max of simple conjugated dienes and <math>\alpha, \beta</math>-unsaturated ketones. Applications of UV Spectroscopy in structure elucidation of simple organic compounds</p>	<p>21 Nov-30 Nov</p>
<p>Section-D</p> <p>Carboxylic Acids &amp; Acid Derivatives 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. Structure, nomenclature and preparation of acid chlorides, esters, amides and acid anhydrides. Relative stability of acyl derivatives. Physical properties, interconversion of acid derivatives by nucleophilic acyl substitution. Mechanisms of esterification and hydrolysis (acidic and basic)</p>	<p>01 Dec-10 Dec</p>
<p>Revision and doubt sessions till exams.</p>	<p>26 Dec-30 Dec</p>

Name - Meera Rani  
Subject - Chemistry

Lesson Plan (2022-23)

B.Sc. 5th Semester

Inorganic Chemistry	
Topics	Time Period
Metal-ligand Bonding in Transition Metal Complexes Limitations of valence bond theory, an elementary idea of crystal-field theory, crystal field splitting in octahedral, tetrahedral and square planar complexes, factors affecting the crystal-field parameters.	01 Aug-06 Aug
Thermodynamic and Kinetic Aspects of Metal Complex A brief outline of thermodynamic stability of metal complexes and factors affecting the stability, substitution reactions of square planar complexes of Pt(II).	08 Aug-13 Aug
Magnetic Properties of Transition Metal Complex Types of magnetic behaviour, methods of determining magnetic susceptibility, spin-only formula. L-S coupling, correlation of $\mu_s$ and $\mu_{eff}$ values, orbital Contribution to magnetic moments, application of magnetic moment data for 3d metal complexes.	16 Aug-23 Aug
Electron Spectra of Transition Metal Complexes Types of electronic transitions, selection rules for d-d transitions, spectroscopic ground states, spectrochemical series. Orgel-energy level diagram for d1 and d9 states, discussion of the electronic spectrum of $[Ti(H_2O)_6]^{3+}$ complex ion.	24 Aug-31 Aug
Doubt Sessions & Revision	12 Dec-17 Dec

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Lesson Plan

B.Sc. 5th Semester

<b>Physical Chemistry</b>	
<b>Topics</b>	<b>Time Period</b>
<p>Quantum Mechanic s-I Black-body radiation, Plank's radiation law, photoelectric effect, heat capacity of solids, Compton effect, wave function and its significance of Postulates of quantum mechanics , quantum mechanical operator, commutation relations, Hamiltonian operator, Hermitian operator, average value of square of Hermitian as a positive quantity, Role of operators in quantum mechanics, To show quantum mechanically that position and momentum cannot be predicated simultaneously, Determination of wave function &amp; energy of a particle in one dimensional box, Pictorial representation and its significance.</p>	01 Sep-10 Sep
<p>Physical Properties and Molecular Structure Optical activity, polarization – (Clausius – Mossotti equation). Orientation of dipoles in an electric field, dipole moment, induced dipole moment, measurement of dipole moment-temperature method and refractivity method, dipole moment and structure of molecules. Magnetic permeability, magnetic susceptibility and its determination. Application of magnetic susceptibility, magnetic properties - paramagnetism, diamagnetism and ferromagnetics.</p>	12 Sep-24 Sep
<p>Spectroscopy-I Introduction: Electromagnetic radiation, regions of spectrum, basic features of spectroscopy, statement of Born-Oppenheimer approximation, Degrees of freedom.</p> <p>Rotational Spectrum Diatomic molecules. Energy levels of rigid rotator (semi-classical principles), selection rules, spectral intensity distribution using population distribution (Maxwell-Boltzmann distribution), determination of bond length, qualitative description of non-rigid rotor, isotope effect.</p>	26 Sep-08 Oct



<p><b>Spectroscopy-II Vibrational spectrum</b>  Infrared spectrum: Energy levels of simple harmonic oscillator, selection rules, pure vibrational spectrum, intensity, determination of force constant and qualitative relation of force constant and bond energies, effects of anharmonic motion and isotopic effect on the spectra., idea of vibrational frequencies of different functional groups.</p> <p>Raman Spectrum:  Concept of polarizability, pure rotational and pure vibrational Raman spectra of diatomic molecules, selection rules, Quantum theory of Raman spectra.</p>	10 Oct-21 Oct
Revision and doubt sessions.	19 Dec-24 Dec

Lesson Plan

B.Sc. 5th Semester

Organic Chemistry	
Topics	Time Period
<p><b>NMR Spectroscopy-I</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, splitting of signals and coupling constants, magnetic equivalence of protons.</p>	27 Oct-5 Nov
<p><b>NMR Spectroscopy-II</b>  Discuss ion of PMR spectra of the molecules: ethyl bromide, npropyl bromide, isopropyl bromide, 1,1-dibromoethane, 1,1,2-tribromoethane, ethanol, acetaldehyde, ethyl acetate, toluene, benzaldehyde and acetophenone. Simple problems on PMR spectroscopy for structure determination of organic compounds.</p>	07 Nov-19 Nov



<p><b>Carbohydrates-I</b>  Classification and nomenclature. 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, ethers and esters.  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.</p>	21 Nov-30 Nov
<p><b>Carbohydrates-II</b>  An introduction to disaccharides (maltose, sucrose and lactose) and polysaccharides (starch and cellulose) without involving structure determination.</p> <p><b>Organometallic Compounds</b>  Organomagnesium compounds: the Grignard reagents-formation, structure and chemical reactions. Organozinc compounds: formation and chemical reactions. Organolithium compounds: formation and chemical reactions.</p>	01 Dec-10 Dec
<p>Revision and doubt sessions till exams.</p>	26 Dec-30 Dec

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Lesson Plan (2022-23)

B.Sc. 2<sup>nd</sup> Semester

Inorganic chemistry	
Topics	Time Period
Hydrogen Bonding & Vander Waals Forces Hydrogen Bonding – Definition, Types, effects of hydrogen bonding on properties of substances, application Brief discussion of various types of Vander Waals Forces. Metallic Bond and Semiconductors Metallic Bond- Brief introduction to metallic bond, band theory of metallic bond Semiconductors- Introduction, types and applications.	06feb-11feb
s-Block Elements Comparative study of the elements including, diagonal relationships, salient features of hydrides (methods of preparation excluded), solvation and complexation tendencies including their function in biosystems. Chemistry of Noble Gases Chemical properties of the noble gases with emphasis on their low chemical reactivity, chemistry of xenon, structure and bonding of fluorides, oxides & oxyfluorides of xenon.	13feb-18feb
p-Block Elements Emphasis on comparative study of properties of p-block elements (including diagonal relationship and excluding methods of preparation). Boron family (13th gp):- Diborane – properties and structure (as an example of electron – deficient compound and multicentre bonding), Borazine – chemical properties and structure Trihalides of Boron – Trends in Lewis acid character structure of aluminium (III) chloride. Carbon Family (14th group) Catenation, p $\pi$ – d $\pi$ bonding (an idea), carbides, fluorocarbons, silicates structural aspects), silicon – general methods of preparation, properties and uses	20feb-28feb
Nitrogen Family (15th group) Oxides – structures of oxides of N,P. oxyacids – structure and relative acid strengths of oxyacids of Nitrogen and phosphorus. Structure of white, yellow and red phosphorus. Oxygen Family (16th group) Oxyacids of sulphur – structures and acidic strength H <sub>2</sub> O <sub>2</sub> –structure, properties and uses. Halogen Family (17th group) Basic properties of halogen, interhalogens types properties, hydro and oxyacids of chlorine – structure and comparison of acid strength. B. Sc. IInd Semester Paper VI (Theory) Physical Chemistry Mar	01mar-18 mar

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Revision and doubt session	15may-20 may
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B.Sc. 2<sup>nd</sup> Semester

**Physical chemistry**

<b>Topics</b>	<b>Time Period</b>
Kinetics-I Rate of reaction, rate equation, factors influencing the rate of a reaction – concentration, temperature, pressure, solvent, light, catalyst. Order of a reaction, integrated rate expression for zero order, first order, second and third order reaction. Half life period of a reaction. Methods of determination of order of reaction.	06feb-11feb
Kinetics-II Effect of temperature on the rate of reaction – Arrhenius equation. Theories of reaction rate – Simple collision theory for unimolecular and bimolecular collision. Transition state theory of Bimolecular reactions	13feb-18feb
Electrochemistry-I Electrolytic conduction, factors affecting electrolytic conduction, specific, conductance, molar conductance, equivalent conductance and relation among them, their variation with concentration. Arrhenius theory of ionization, Ostwald's Dilution Law. Debye- Huckel – Onsager's equation for strong electrolytes (elementary treatment only) Transport number, definition and determination by Hittorf's methods, (numerical included)	20feb-28feb
Electrochemistry-II Kohlrausch's Law, calculation of molar ionic conductance and effect of viscosity temperature & pressure on it. Application of Kohlrausch's Law in calculation of conductance of weak electrolytes at infinite dilution. Applications of conductivity measurements: determination of degree of dissociation, determination of $K_a$ of acids determination of solubility product of sparingly soluble salts, conductometric titrations. Definition of pH and $pK_a$ , Buffer solution, Buffer action, Henderson – Hazel equation, Buffer mechanism of buffer	01mar-18 mar
Revision and doubt session	15may-20 may

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B.Sc. 2<sup>nd</sup> Semester

**Inorganic chemistry**

Topics	Time Period
Hydrogen Bonding & Vander Waals Forces Hydrogen Bonding – Definition, Types, effects of hydrogen bonding on properties of substances, application Brief discussion of various types of Vander Waals Forces . Metallic Bond and Semiconductors Metallic Bond- Brief introduction to metallic bond, band theory of metallic bond Semiconductors- Introduction, types and applications.	06feb-11feb
s-Block Elements Comparative study of the elements including , diagonal relationships, salient features of hydrides (methods of preparation excluded), solvation and complexation tendencies including their function in biosystems. Chemistry of Noble Gases Chemical properties of the noble gases with emphasis on their low chemical reactivity, chemistry of xenon, structure and bonding of fluorides, oxides & oxyfluorides of xenon.	13feb-18feb
p-Block Elements Emphasis on comparative study of properties of p-block elements (including diagonal relationship and excluding methods of preparation). Boron family (13th gp):- Diborane – properties and structure (as an example of electron – deficient compound and multicentre bonding), Borazene – chemical properties and structure Trihalides of Boron – Trends in Lewis acid character structure of aluminium (III) chloride. Carbon Family (14th group) Catenation, p $\pi$ -d $\pi$ bonding (an idea), carbides, fluorocarbons, silicates structural aspects), silicon – general methods of preparations, properties and uses.,	20feb-28feb
Nitrogen Family (15th group) Oxides – structures of oxides of N,P, oxyacids – structure and relative acid strengths of oxyacids of Nitrogen and phosphorus. Structure of white, yellow and red phosphorus. Oxygen Family (16th group) Oxyacids of sulphur – structures and acidic strength H <sub>2</sub> O <sub>2</sub> –structure, properties and uses. Halogen Family (17th group) Basic properties of halogen, interhalogens types properties, hydro and oxyacids of chlorine – structure and comparison of acid strength .	01mar-18 mar

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15may-20 may

Revision and doubt session



POOJA RANI

Lesson Plan (2022-23)

B.Sc. 4<sup>th</sup> Semester

<b>Inorganic chemistry</b>	
<b>Topics</b>	<b>Time Period</b>
Section-A Chemistry of f – block elements Lanthanides Electronic structure, oxidation states and ionic radii and lanthanide contraction, complex formation, occurrence and isolation, lanthanide compounds.	06feb-11feb
Section-B Chemistry of f – block elements Actinides General features and chemistry of actinides, chemistry of separation of Np, Pu and Am from U, Comparison of properties of Lanthanides and Actinides and with transition elements .	13feb-18feb
Section-C Theory of Qualitative and Quantitative Inorganic Analysis-I Chemistry of analysis of various acidic radicals, Chemistry of identification of acid radicals in typical combinations, Chemistry of interference of acid radicals including their removal in the analysis of basic radicals.	20feb-28feb
Section-D Theory of Qualitative and Quantitative Inorganic Analysis-II Chemistry of analysis of various groups of basic radicals, Theory of precipitation, co- precipitation, Post- precipitation, purification	01mar-18 mar
Revision and doubt session	15may-20 may

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Lesson Plan

B.Sc. 6<sup>th</sup> Semester

PHYSICAL CHEMISTRY	
Topics	Time Period
Section-A Thermodynamics-III Second law of thermodynamics, need for the law, different statements of the law, Carnot's cycles and its efficiency, Carnot's theorem, Thermodynamics scale of temperature. Concept of entropy – entropy as a state function, entropy as a function of V & T, entropy as a function of P & T, entropy change in physical change, entropy as a criteria of spontaneity and equilibrium. Entropy change in ideal gases and mixing of gases.	20 Mar-25Mar
Section-B Thermodynamics-IV Third law of thermodynamics: Nernst heat theorem, statement of concept of residual entropy, evaluation of absolute entropy from heat capacity data. Gibbs and Helmholtz functions; Gibbs function (G) and Helmholtz function (A) as thermodynamic quantities, A & G as criteria for thermodynamic equilibrium and spontaneity, their advantage over entropy change. Variation of G and A with P, V and	27Mar-31Mar
Section-C Electrochemistry-III Electrolytic and Galvanic cells – reversible & Irreversible cells , conventional representation of electrochemical cells. EMF of cell and its measurement, Weston standard cell, activity and activity coefficients. Calculation of thermodynamic quantities of cell reaction ( G, H & K). Types of reversible electrodes – metal- metal ion gas electrode, metal –insoluble salt- anion and redox electrodes. Electrode reactions, Nernst equations, derivation of cell EMF and single electrode potential. Standard Hydrogen electrode, reference electrodes, standard electrodes potential, sign conventions, electrochemical series and its applications.	01 Apr-06 Apr

Section-D Electrochemistry-IV Concentration cells with and without transference, liquid junction potential, application of EMF measurement i.e. valency of ions, solubility product activity 20 coefficient, potentiometric titration (acid- base and redox). Determination of pH using Hydrogen electrode, Quinhydrone electrode and glass electrode by potentiometric methods.

10 Apr-15 Apr

Revision and doubt sessions till exams.

22may-27 mayy

B.Sc. Semester

ORGANIC CHEMISTRY	
Topics	Time Period
Section-A . Infrared (IR) absorption spectroscopy Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bands, measurement of IR spectrum, fingerprint region, characteristic absorptions of various functional groups and interpretation of IR spectra of simple organic compounds. Applications of IR spectroscopy in structure elucidation of simple organic compounds.	17 Apr-22 Apr

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<p>Section-B . Amines Structure and nomenclature of amines, physical properties. Separation of a mixture of primary, secondary and tertiary amines. Structural features affecting basicity of amines. Preparation of alkyl and aryl amines (reduction of nitro compounds, nitriles, reductive amination of aldehydic and ketonic compounds. Gabrielphthalimide reaction, Hofmann bromamide reaction. electrophilic aromatic substitution in aryl amines, reactions of amines with nitrous acid.</p>	24 Apr-29 Apr
<p>Section-C 1. Diazonium Salts Mechanism of diazotisation, structure of benzene diazonium chloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO<sub>2</sub> and CN groups, reduction of diazonium salts to hydrazines, coupling reaction and its synthetic application. 2. Nitro Compounds Preparation of nitro alkanes and nitro arenes and their chemical reactions. Mechanism of electrophilic substitution reactions in nitro arenes and their reductions in acidic, neutral and alkaline medium.</p>	01 May-06 May
<p>Section-D . Aldehydes and Ketones Nomenclature and structure of the carbonyl group. Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides, advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridiniumchlorochromate (PCC) and pyridinium dichromate., Physical properties. Comparison of reactivities of aldehydes and ketones. Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin, aldol, Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives. Wittig reaction. Mannich reaction. Oxidation of aldehydes, Baeyer-Villiger oxidation of ketones, Cannizzaro reaction. MPV, Clemmensen, Wolff-Kishner, LiAlH<sub>4</sub> and NaBH<sub>4</sub> reductions</p>	08 May-13 May
<p>Revision and doubt sessions till exams.</p>	29 May-31 May

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Lesson Plan (2022-23)

B.Sc. 6th Semester

Inorganic Chemistry	
Topics	Time Period
Organometallic Chemistry Definition, nomenclature and classification of organometallic compounds. Preparation, properties, and bonding of alkyls of Li, Al, Hg, and Sn a brief account of metal-ethylenic complexes, mononuclear carbonyls and the nature of bonding in metal carbonyls.	06 Feb-11 Feb
Acids and Bases, HSAB Concept Arrhenius, Bronsted – Lowry, the Lux – Flood, Solvent system and Lewis concepts of acids & bases, relative strength of acids & bases, Concept of Hard and Soft Acids & Bases: Symbiosis, electronegativity and hardness and softness	13 Feb-18 Feb
Bioinorganic Chemistry Essential and trace elements in biological processes, metalloporphyrins with special reference to haemoglobin and myoglobin. Biological role of alkali and alkaline earth metal ions with special reference to $Ca^{2+}$ . Nitrogen fixation.	20 Feb-28 Feb
Silicones and Phosphazenes Silicones and phosphazenes, their preparation, properties, structure and uses	01 Mar-18 Mar
Revision and doubt sessions	15 May-20 May



Lesson Plan

B.Sc. 6th Semester

Physical Chemistry	
Topics	Time Period
Spectroscopy-III Electronic Spectrum Concept of potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules and Franck- Condon principle. Qualitative description of sigma and pie and n molecular orbital (MO) their energy level and respective transitions.	20 Mar-25 Mar
Photochemistry Interaction of radiation with matter, difference between thermal and photochemical processes. Laws of photochemistry: Grotthus-Drapper law, Stark- Einstein law (law of photochemical equivalence) Jablonski diagram depicting various processes occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radiative processes (internal conversion, intersystem crossing), quantum yield, photosensitized reactions-energy transfer processes (simple examples).	27 Mar-31 Mar
Dilute Solutions and Colligative Properties Ideal and non-ideal solutions, methods of expressing concentrations of solutions, activity and activity coefficient. Dilute solution, Colligative properties, Raoult's law, relative lowering of vapour pressure, molecular weight determination, Osmosis law of osmotic pressure and its measurement, determination of molecular weight from osmotic pressure. Elevation of boiling point and depression of freezing point, Thermodynamic derivation of relation between molecular weight and elevation in boiling point and depression in freezing point. Experimental methods for determining various colligative properties. Abnormal molar mass, degree of dissociation and association of solutes.	01 Apr-06 Apr
Phase Equilibrium Statement and meaning of the terms – phase component and degree of freedom, thermodynamic derivation of Gibbs phase rule, phase equilibria of one component system – Example – water and Sulphur systems. Phase equilibria of two component systems solid-liquid equilibria, simple eutectic Example Pb-Ag system, desilverisation of lead	10 Apr-15 Apr
Revision and doubt sessions till exams.	22 May-27 May

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Lesson Plan  
B.Sc. 6th Semester

Organic Chemistry	
Topics	Time Period
<p><b>NMR Spectroscopy-I</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, splitting of signals and coupling constants, magnetic equivalence of protons.</p>	17 Apr-22 Apr
<p><b>NMR Spectroscopy-II</b> Discussion of PMR spectra of the molecules: ethyl bromide, n-propyl bromide, isopropyl bromide, 1,1-dibromoethane, 1,1,2-tribromoethane, ethanol, acetaldehyde, ethyl acetate, toluene, benzaldehyde and acetophenone. Simple problems on PMR spectroscopy for structure determination of organic compounds.</p>	24 Apr-29 Apr
<p><b>Carbohydrates-I</b> Classification and nomenclature. 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, ethers and esters. 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.</p>	01 May-06 May
<p><b>Carbohydrates-II</b> An introduction to disaccharides (maltose, sucrose and lactose) and polysaccharides (starch and cellulose) without involving structure determination.</p> <p><b>Organometallic Compounds</b> Organomagnesium compounds: the Grignard reagents-formation, structure and chemical reactions. Organozinc compounds: formation and chemical reactions. Organolithium compounds: formation and chemical reactions.</p>	08 May-13 May



Revision and doubt sessions till exams.

29 May-31 May

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# LESSON PLAN (ODD SEM)

Session 2022-23

MCA 1st Sem

Subject : Data Structures and Algorithms

Faculty Name: Dr. Geetika and Ms. Rakhi Soni

<b>Oct 2022</b>	<p>Data Types: Primitive, Composite and Abstract Data Types, Data Structures: Concept, Classification, and importance; Data Structures vs Data Types, Linear vs Non Linear Data Structures.</p> <p>Single Linked List; Operation on Linked List.</p>
<b>Nov 2022</b>	<p>Single and Multidimensional Arrays; Address Calculation using column and Row major ordering; various operation on arrays; Vectors; Sparse Matrix; Application of Arrays, Implementation of Arrays in C/C++</p> <p><b>Assignment 1</b></p> <p>Linked stack and queue. Polynomial Representation and Manipulation using Linked List. Circular Linked List. Doubly Linked List. Implementation in C/C++.</p> <p>Trees: Concept, Representation and Application of Trees, Forest, Binary Tree, Threaded Binary Tree, Representation of a general Tree, Conversion of Forest into Tree, In order, preorder and Postorder Traversal. Binary Search Tree.</p> <p><b>Presentation/Test</b></p> <p>Representation of stacks and queues using array and linked list, Circular queues, Priority queues and Dequeue.</p> <p>AVL Tree, B Tree, B+ Tree, B* Tree. Recursive algorithms, Heap operations, Binomial heaps, Fibonacci heaps, Skew heaps, heap set.</p> <p><b>Assignment 2</b></p>
<b>Dec 2022</b>	<p>Application of Stack: Conversion of infix to postfix and prefix expression. Evaluation of postfix expression using stacks; Implementation in C/C++.</p> <p>Adjacency matrix, Adjacency List; Types of Graphs; Pths: Euler Graph, Hamiltonian Paths and circuits; Cut-sets, Connectivity and Separability, Planar Graph, Isomorphism, Graph Coloring, Covering and Partitioning.</p> <p><b>Test</b></p> <p>BFS, DFS, MST: Prim's and Krushkal's algorithm; Shortest Path Algorithm : Dijkstra's and Floyd's algorithm;</p>
<b>Jan 2023</b>	<p>Topological Sort, Max Flow: Ford Fulkerson Algorithm, max flow-min cut.</p> <p>Tutorials and Problems Session.</p> <p><b>Revision</b></p>

*Geetika*

## LESSON PLAN(ODD SEM)

SESSION 2021-22

Subject: Computer Fundamentals and Programming in C (MCA 1st Bridge Course)

Faculty: Dr. Geetika

Oct. 2022	Concept of data & Information. Components of Computer, Input & Output Device, Component of CPU, Memory & Storage Devices, Classification of Computers.
Nov. 2022	Advantage & Limitation of Computer, Application of Computer, Social Concern of Computer Technology: Positive and Negative Impacts. Computer Crimes. Virus and their remedial Solutions. System & Application Software, Overview of Operating System, Programming Language: Machine, Assembly and High-Level Language, 4GL. Language Translator. Linker & Loader.  <b>Presentation 1</b>  Problem Solving: Problem Identification. Analysis, Algorithm, Flowcharts, Pseudo codes. Decision Tables. Program Coding. Program Testing and Execution. C Programming Fundamentals: Keywords, Variables and Constants, Structure of a C program.  <b>Assignment 1</b>
Dec. 2022	Operators & Expressions: Arithmetic, Unary, Logical, Bit-wise, Assignment & Conditional operator.  <b>Test</b>  Decision Making: If....else, Else If Ladder, Switch, break, Continue and Goto Statement. Loops: While, do....while, for statements. Nested Loops. Functions: Defining and Accessing user defined functions, Library Functions, Function Prototype, Passing Arguments,  <b>Assignment 2</b>
Jan 2023	Passing array as an argument. Recursion. Use of a Library functions. Macro vs Functions. Pointers in C.

Geetika

# LESSON PLAN (EVEN SEM)

Session 2022-23

MCA IInd Sem

Subject : E-Commerce (17.02.23 to 03.06.23)

Faculty name: Dr. Geetika

<b>Feb 2023</b>	E-Commerce Meaning , Concept, Definition, Origin and Development. Categories of E-Commerce : B2B, B2C, B2G, G2G, G2C,
<b>Mar 2023</b>	The Constitution of the E-Commerce: Portal of the Network, Customer Relationship Management, Supply Chain Management, Logistic Management, Decision Support, Supporting Environment for E-Commerce, Technical Environment, Legal Environment, Credit Environment and Financial Environment  Assignment 1
<b>April 2023</b>	M-Commerce: Origin, Components.  Presentation  The Development of M-Commerce, Application of M-Commerce.  Test 1
<b>May 2023</b>	Payment Technologies for E-Commerce: Online Bank, E-Payment Tools: E-Payment System, Intelligent Card, E-check, E-wallet, E-Cash.  Assignment 2  Electronic Commerce: Influence on Marketing: Product, Physical Distribution, Price, Promotion, Marketing Communication, Common e-Marketing Tools  Presentation
<b>June 2023</b>	Test/Revision

*Geetika*

# LESSON PLAN (EVEN SEM)

Session 2022-23

MCA IVth Sem

Subject : Computer Security and Blockchain Technology (07.02.2023 to 03.06.22)

Faculty name: Ms. Venu and Ms. Rakhi Soni

<b>Feb 2023</b>	<p>Rakhi</p> <p>Meaning of Computer Security, Computer Criminals, Methods of Defense, Cryptography, Substitution Ciphers, Transpositions Ciphers. Making "Good" Encryption Algorithms.</p> <p>Venu</p> <p>Blockchain Technology: Cryptography - Hash function, Digital Signature - ECDSA, Memory Hard Algorithm, Zero Knowledge Proof, Blockchain Overview: Introduction, Advantage over conventional distributed database.</p>
<b>Mar 2023</b>	<p>Rakhi</p> <p>The Data Encryption Standard, The AES Encryption Algorithm. Public Key Encryptions(RSA), Uses of Encryption. Secure Programs, Non-malicious Program Errors, viruses and other malicious code.</p> <p>Assignment 1 Venu</p> <p>Blockchain Network, Mining Mechanism, Distributed Consensus, Merkle Patricia Tree, Gas Limit, Transactions and Fee, Anonymity, Reward, Chain Policy, Life of Blockchain application, Soft &amp; Hard Fork, Private and Public blockchain. Cryptocurrency: History, Distributed Ledger, Bitcoin protocols - Mining strategy and rewards, Ethereum - Construction, DAO, Smart Contract, GHOST, Vulnerability, Attacks, Sidechain, Namecoin.</p> <p>Presentation</p>
<b>April 2023</b>	<p>Rakhi</p> <p>Targeted Malicious code, controls Against Program Threats, Protection in General-Purpose operating system protected objects and methods of protection. File protection Mechanisms, User Authentication, Designing Trusted O.S: Security policies, models of security, trusted O.S. design, Assurance in trusted OS.</p>

For: Rakhi

## LESSON PLAN (ODD SEM)

Session 2022-23

MCA 1st Sem (Bridge Course)

Subject : Rapid Application Development with Visual Basic

Faculty name: Ms. Rakhi Soni

Oct 2022	Introduction to VB: VB IDE & Components, Features of VB, VB for Rapid Application Development, VB as event driven & object based language, An overview of VB project types.
Nov 2022	Assignment 1  Variables, Constants, Data types, Variable Scope. Default Control in the toolbox. Exploring Project Properties. VB operations & Control Structure: Arithmetic Operations, Built-In function.  Test/Presentation  I/O in VB, Branching and looping statement. Menu in VB: Adding menu, Modifying and Deleting menu items, Creating submenu . Working with Forms, Working with multiple Forms, Loading, Showing and Hiding Forms.  Assignment 2
Dec 2022	Creating Forms at Run Time, Drag and Drop operation, MDI Forms, MDI from Arranging MDI child windows, Coordinating data between MDI child Forms.  Presentation  Advanced Controls in VB: Introduction: Scroll bar,Slider Control, Tree View, List View, Rich Text Box Control Toolbar, Status Bar, Progress Bar, Cool bar,Image List, Tab Strip. VB as perfect front end Language.
Jan 2023	The Data Control, Data Bound Control, Using DAO, RDO, ADO.  Revision.

For :- Ratch

## LESSON PLAN (ODD SEM)

Session 2022-23

MCA 1st Sem

Subject : Data Structures and Algorithms

Faculty Name: Dr. Geetika and Ms. Rakhi Soni

Oct 2022	<p>Data Types: Primitive, Composite and Abstract Data Types, Data Structures: Concept, Classification, and importance; Data Structures vs Data Types, Linear vs Non Linear Data Structures.</p> <p>Single Linked List; Operation on Linked List.</p>
Nov 2022	<p>Single and Multidimensional Arrays; Address Calculation using column and Row major ordering; various operation on arrays; Vectors; Sparse Matrix; Application of Arrays, Implementation of Arrays in C/C++</p> <p><b>Assignment 1</b></p> <p>Linked stack and queue. Polynomial Representation and Manipulation using Linked List. Circular Linked List. Doubly Linked List. Implementation in C/C++.</p> <p>Trees: Concept, Representation and Application of Trees, Forest, Binary Tree, Threaded Binary Tree, Representation of a general Tree, Conversion of Forest into Tree, In order, preorder and Postorder Traversal. Binary Search Tree.</p> <p><b>Presentation/Test</b></p> <p>Representation of stacks and queues using array and linked list, Circular queues, Priority queues and Dequeue.</p> <p>AVL Tree, B Tree, B+ Tree, B* Tree. Recursive algorithms, Heap operations, Binomial heaps, Fibonacci heaps, Skew heaps, heap set.</p> <p><b>Assignment 2</b></p>
Dec 2022	<p>Application of Stack: Conversion of infix to postfix and prefix expression. Evaluation of postfix expression using stacks; Implementation in C/C++.</p> <p>Adjacency matrix, Adjacency List; Types of Graphs; Pths: Euler Graph, Hamiltonian Paths and circuits; Cut-sets, Connectivity and Separability, Planar Graph, Isomorphism, Graph Coloring, Covering and Partitioning.</p> <p><b>Test</b></p> <p>BFS, DFS, MST: Prim's and Krushkal's algorithm; Shortest Path Algorithm : Dijkstra's and Floyd's algorithm;</p>
Jan 2023	<p>Topological Sort, Max Flow: Ford Fulkerson Algorithm, max flow-min cut. Tutorials and Problems Session.</p> <p><b>Rivision</b></p>

for: Rakhi

# LESSON PLAN (EVEN SEM)

Session 2022-23

MCA 2nd Sem

Subject : Internet of Things ( 17.02.2023 to 03.06.2023)

Faculty Name: Ms. Rakhi Soni

Feb 2023	IoT: Definition, Motivation, Impact & Challenges; IoT vs WoT Functional Requirements, Architecture: Web 3.0, View of IoT
Mar 2023	Ubiquitous IoT, Applications, Four Pillars of IoT, DNA of IoT; Toolkit Approach for end user participation in IoT, Middleware for IoT: Overview, Communication Middleware for IoT, IoT Information Security.  Assignment 1  Protocol Standardization for IoT, Efforts, M2M and WSN Protocols, SCADA and RHD, Issue with IoT Standardization and UDS.
Apr 2023	Communicating Smart Objects: Communication criteria, IoT access Technologies- IEEE  Test 1(Unit-2) Presentation(Unit-3)  IOT Network Layer: IP as IoT network layer, 6LoWPAN, 6Lo,6T1SCH,RPL IOT Application Layer: Transport Method, CoAP, MQTT Data and Analytics for IoT, IoT Middleware, Data Analytics for IoT, BACNet, Protocol, Modbus, KNX, Network Layer, APS layer Security.
May 2023	Basics of Sensor and actuators: example and working principles Cloud computing and IoT, Equivalent Microcontroller platform. Setting up the board, Programming for IOT, Reading from sensors Communication: connecting microcontroller with mobile devices, communication through bluetooth and USB, Connection with the internet using wifi/Ethernet  Presentation (Case Study: Smart City, Smart Grid, Smart Transportation, Smart Manufacturing, Smart Healthcare)
June 2023	Test/Revision

Rakhi

	<p>Venu</p> <p>Assignment 2  Blockchain Applications: Internet of Things, Medical Record Management System, Domain Name Service and future of Blockchain.  Security in Network: Threats in Network, Network Security Controls, Firewalls, Intrusion Detection Systems, Secure E-mail.</p> <p>Test 1</p>
<p><b>May 2023</b></p>	<p>Rakhi</p> <p>Database Security requirements, Reliability and integrity, Sensitive data, Inference, multilevel database, proposals for multilevel security.</p> <p>Venu</p> <p>Administering Security: Security Planning, Risk Analysis, Organizational Security policies, Physical Security. Legal Privacy and Ethical Issues in Computer Security: Protecting Programs and data, Information and the law, Rights of Employees and Employers, Software failures, Computer Crime, Praia, Ethical issues in Computer Security.</p> <p>Test 2</p>
<p><b>June 2023</b></p>	<p>Revision/Tutorial</p>

Rakhi



Session 2022-23

MCA 3rd Sem (Cloud Computing)

Subject : Cloud Computing

Faculty name: Ms. Priyanka Balhara

<b>August 2022</b>	Concept & Definitions, Characteristics of Cloud Computing, Benefits and Limitations, NIST Model, Cloud Cube Model, Cloud Computing vs Client Server Architecture vs Cluster Computing vs Grid Computing
<b>September 2022</b>	Deployment Models: public, private, hybrid and community, Service Models: IaaS, PaaS, SaaS, IDaaS, CaaS Application areas of Cloud Computing, Cloud computing as indispensable to modern and smart healthcare system, Role played by cloud computing during COVID 19 Cloud Management: Service Oriented Architecture, Service Level Agreements (SLAs), Monitoring of entire cloud computing deployment stack, Lifecycle management of cloud services  Presentation
<b>October 2022</b>	Virtualization : Objectives, Benefits ,Importance of Virtualization in cloud computing, Load Balancing, Hypervisors, Machine Imaging, VMware Cloud Security Challenges ,Cloud Security Approaches, Cloud Security Alliance Standards, Cloud Security Models and related Patterns Case study of Cloud Service offered by : Amazon, Microsoft, Oracle, GI Cloud Initiative Fog Computing: Background, Motivation and Application Characteristics and Issues with Fog Computing, Pros and Cons Myths about Fog Computing Fog Computing Services and Components
<b>November 2022</b>	Fog Protocol, Fog Kit, Proximity Detection Protocols- DDS/RTPS Computing Protocols, Introduction to Privacy Preserving Computation in Fog Computing  Assignment  Concept of Block Chain, Multi Party Computation, Case Study: Exploiting Fog Computing in Health Monitoring, Study: Exploiting Fog Computing in Health Monitoring, Edge Computing: Introduction, Application Scenarios, Characteristics, Issues, Edge Architecture, Difference between Cloud, Edge and Fog Computing, Mobile Edge Computing  Test
<b>December 2022</b>	Challenges in Federating Edge Resources: Network Challenges, Management Challenges, Middleware for Fog and Edge Computing, Security Management in Edge Cloud Architecture, Case Study: Smart Surveillance video Stream processing at edge  Revision



MCA 2nd Sem

Subject : Database Management System

Faculty name: Ms. Priyanka Balhara

February 2023	<p><b>Database System Concepts and Architecture:</b> Traditional File Processing System vs DBMS, Characteristics &amp; Advantages of DBMS, Three-Schema Architecture and Data Independence; Data Models, Schemas, and Instances; Database Languages and Interfaces; Classification of DBMS. Overview of Entity-Relationship Diagram, Relational Model - Constraints, Relational Database Schemas, Relational Algebra and Relational Calculus; Codd Rules.</p>
	Assignment 1
March 2023	<p><b>Normalization for Relational Databases:</b> Functional Dependencies and Normalization; SQL: SQL as 4GL, SQL Components: DDL, DML, DQL, DCL, TCL; Data Definition and Data Types; Constraints, Queries, Insert, Delete, and Update Statements; Views, Stored Procedures and Functions; Database Triggers, SQL Injection.</p>
	<p><b>Query Processing and Optimization:</b> Translating SQL queries into Relational Algebra, Basic Algorithm for Executing Query Operations, Using Heuristic in Query Optimization, Using Selectivity and Cost Estimation in Query Optimization, Semantic Query Optimization.</p>
April 2023	<p><b>Transaction Processing:</b> Introduction, Desirable properties of Transactions, Schedules &amp; Recoverability, Serialization of Schedulers, Transaction Support in SQL. Basics of Database Security and Authorization.</p>
	<p><b>Concurrency Control Techniques:</b> Locking techniques for Concurrency Control, Concurrency Control based on Timestamp ordering, Multiversion Concurrency Control Techniques, Validation Currency Control Techniques, Granularity of data items and multiple granularity locking, Using locks for Concurrency Control in Indexes.</p>
	Presentation
May 2023	<p><b>Database Recovery Techniques:</b> Basic Concepts, Recovery Technique based on Deferred Update, Recovery Technique based on Immediate Update, Shadow Paging, The ARIES recovery algorithm, Database backup and recovery from catastrophic failure.</p>
	Test
June 2023	Revision



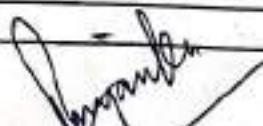
## Session 2022-23

MCA 2nd Sem

Subject : Software Engineering

Faculty name: Ms. Priyanka Balhara

<p>February 2023</p>	<p><b>Introduction:</b> Software and its Characteristics, Evolving Role of Software, Software Product. Software Processes. Software Crisis. Software Engineering Evolution. Principles of Software Engineering. Programming-in-the-small vs. Programming-in-the-large. Software Components. Software Engineering Processes.</p> <p><b>Software Life Cycle (SLC) Models:</b> Water-Fall Model. Prototype Model. Spiral Model. Evolutionary Development Models. Iterative Enhancement Models. Object Oriented Models and other latest Models.</p> <p><b>Software Requirements:</b> Functional and Non-Functional. User requirements. System requirements. Software Requirements Document - Requirement Engineering Process: Feasibility Studies. Requirement's elicitation and analysis, requirements validation, requirements management.</p> <p><b>Assignment 1</b></p>
<p>March 2023</p>	<p><b>Software Design:</b> Basic Concept of Software Design. Architectural Design. Low Level Design: Modularization. Design Structure Charts. Flow Charts. Coupling and Cohesion Measures; Design Strategies: Function Oriented Design. Object Oriented Design. Top- Down and Bottom-Up Design. User Interface Design. Programming practices and Coding standards. <b>Software Testing:</b> Introduction. Verification vs. Validation. Software Reliability. Levels of Testing. Structural Testing (White Box Testing). Functional Testing (Black Box Testing).</p>
<p>April 2023</p>	<p><b>Software Quality:</b> Attributes, Software Quality Assurance - plans &amp; activities: Software Documentation.</p> <p><b>Software Project Management:</b> Project Management activities. Project Estimation. Project planning. Project scheduling.</p> <p><b>Software Risk Management:</b> Reactive versus Proactive Risk Strategies. Risk management activities: Software Risks (Risk Identification, Risk Projection, Risk Refinement, Risk Mitigation). Risks Monitoring and Management.</p> <p><b>Software Measurement and Metrics:</b> Process Metrics. Project metrics. Estimation - LOC, Halstead's Software Science. Function Point (FP). Cyclomatic Complexity Measures: Software Project Estimation Models- Empirical. Putnam. COCOMO I &amp; II.</p> <p><b>Presentation</b></p>
<p>May 2023</p>	<p><b>Software Maintenance:</b> Need for Maintenance. Categories of Maintenance: Preventive, Corrective and Perfective Maintenance. Cost of Maintenance: Software Re- Engineering. Reverse Engineering, Software Documentation.</p> <p><b>Software Configuration Management:</b> SCM Activities. Change Control Process. Software Version Control: Software Reuse. Software Evolution.</p> <p><b>CASE Computer Aided Software Engineering (CASE). CASE Tools.</b></p> <p><b>Test</b></p>
<p>June 2023</p>	<p>Revision</p>



## Lesson Plan for Session 2022-2023(odd sem)

Dr Neelam Dahiya & Mrs. Venu

Class :MCA 3rd Sem

Subject : The Enterprise Architecture with .NET

Subject code: MCA-303

<p>Aug 2022</p>	<p>Dr Neelam Dahiya:</p> <p>Unit 1 Understanding Previous Technologies, Benefits of .NET Framework, Architecture of .NET Framework 4.0, .NET Execution EngineComponents of .NET Framework 4.0</p> <p>Ms Venu</p> <p>Unit 2 Classes and Objects: Creating a Class, Creating an Object, Using this Keyword,</p>
<p>Sept 2022</p>	<p>Dr Neelam Dahiya:</p> <p>.NET Execution EngineComponents of .NET Framework 4.0: CLR, CTS, Metadata and Assemblies, .NET Framework Class Library, Windows Forms, ASP .NET and ASP .NET AJAX, ADO .NET, Windows workflow Foundation, Windows Presentation Foundation, Windows Communication</p> <p><b>Assignment 1</b></p> <p>Ms Venu</p> <p>Creating an Array of Objects, Using the Nested Classes, Defining Partial Classes and Method, Returning a Value from a Method and Describing Access Modifiers. Static Classes and StaticMembers, Properties: Read-only Property, Static Property,</p>
<p>Oct 2022</p>	<p>Dr Neelam Dahiya: Creating a Simple C# Console Application, Identifiers and Keywords. System Data Types, Variables and Constants: Value Types, Reference Types, Understanding Type Conversions, Boxing and UnBoxing. Namespaces, The System namespace, .NET Array Types.</p> <p>Ms Venu:</p> <p>Indexers, Structs: Syntax of a struct and Access Modifiers for structs, System.Object Class. Encapsulation , Inheritance and Constructors , Polymorphism. Unit 4- Windows Forms: Introduction, Windows Forms, A Simple Event- Driven GUI,</p> <p><b>Test 1</b></p>

*Dr Neelam Dahiya*      *Mrs. Venu*

<p><b>Nov 2022</b></p>	<p>Dr Neelam Dahiya: Unit 3 Events: Event Sources, Event Handlers, Events and Delegates, Multiple Event Handlers. Exception Handling: The try/catch/throw/finally statement, Custom Exception. System.Exception, Handling Multiple Exception Understanding</p> <p><b>Test 2</b></p> <p>Ms Venu</p> <p>Control Properties and Layout, Multiple Document Interface (MDI) Windows. Introduction, Web Basics, Multitier Application Architecture, Your First Web Application: Building Web-Time Application, Examining Web-Time. aspx's Code- Behind File, Understanding Master pages,</p>
<p><b>Dec 2022</b></p>	<p>Dr Neelam Dahiya: ADO.NET: Describing the Architecture of ADO.NET, Entity Framework. Creating Connection. Strings: Syntax for Connection Strings. Creating a Connection to a Database: SQL Server Database, OLEDB Database, Creating a Command Object. Working with DataAdapters: Creating DataSet from DataAdapter.</p> <p>Ms Venu</p> <p>Standard Web Controls: Designing a Form, Validation Controls, GridView Control, Drop Down List, Session Tracking, ASP.NET. AJAX: Exploring AJAX, Need for AJAX, AJAX and other Technologies, AJAX Server Controls, Script Manager control, Update Panel, Update Progress Control, Creating Simple Application using AJAX Server Control</p> <p><b>Assignment 2</b></p>

*Neelam Dahiya*

# Lesson Plan for Session 2022-2023(odd sem)

Dr Neelam Dahiya & Mrs. Venu

Class :MCA 3rd Sem

Subject : Open Elective(Disaster Management)

Subject code: 16ENVO2

Aug 2022	<p>Dr Neelam Dahiya: Unit I - Disaster- Causes and phases of disaster, Rapid onset and slow onset disasters.</p> <p>Ms Venu</p> <p>Unit 2 Floods and Cyclones: causes of flooding, Hazards associated with flooding.</p>
Sept 2022	<p>Dr Neelam Dahiya: Nature and responses to geo-hazards, trends in climatology, meteorology and hydrology. Seismic activities. Changes in Coastal zone, coastal erosion, beach protection.</p> <p><b>Assignment 1/PowerPoint Presentation</b></p> <p>Ms Venu:</p> <p>Flood forecasting, Flood management, Integrated Flood Management and Information System (IFMIS), Flood control. Water related hazards.</p>
Oct 2022	<p>Dr Neelam Dahiya: Coastal erosion due to natural and manmade structures. Nature and responses to geo-hazards, trends in climatology, meteorology and hydrology. Changes in Coastal zone.</p> <p>Ms Venu Structure and nature of tropical cyclone, Tsunamis – causes and physical characteristics, mitigation of risks. Mitigation efforts: UN draft</p> <p><b>Assignment 2</b></p>
Nov 2022	<p>Dr Neelam Dahiya: Seismic activities, Coastal erosion, beach protection. Coastal erosion due to natural and manmade structures. Unit III- .Earthquakes: Causes and characteristics of ground-motion</p> <p>Test I</p> <p>Ms Venu Mitigation efforts: UN draft resolution on Strengthening of Coordination of Humanitarian Emergency Assistance, International Decade for Natural Disaster Reduction (IDNDR),</p>

Neelam Venu

Dec 2022	<p>Dr Neelam Dahiya: Earthquake hazards and risks, Volcanic landforms, eruptions, early warning from satellites, risk mitigation and training, Landslides</p> <p>Ms Venu: Policy for disaster reduction, problems of financing and insurance</p> <p>Test 2</p>
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## Lesson Plan for Session 2022-2023(Even Sem)

06- Feb -2023 to 03 June 2023

Dr Neelam Dahiya & Mrs. Venu

Class :MCA 4th Sem

Subject : Advanced Database Management

Subject code: MCA-404A

FEB 2023	<p>Dr Neelam Dahiya:</p> <p><b>UNIT - I</b></p> <p><b>Introduction to Advanced Database Systems:</b> Overview of advance database systems, their importance and Applications; <b>EER Model</b> -The ER model revisited, EER model: Super classes, Subclasses, Inheritance, Specialization and Generalization, Constraints and characteristics of specialization and Generalization, Category.</p> <p>Ms Venu</p> <p><b>Enhanced Data Models for Advanced Applications:</b> Active database- syntax and semantics (DB2, Oracle), applications, design principles for active rules, Temporal database concepts, Spatial databases, Deductive databases.</p>
March 2023	<p>Dr Neelam Dahiya:</p> <p><b>Object Model:</b> Overview of Object-Oriented concepts, Object identity, Object structure, Type constructors, Encapsulation of operations, Methods, and Persistence, Type hierarchies and Inheritance, Complex objects, Schema design for OODBMS, OQL, Persistent Programming language, OODBMS architectures and storage issues, Transaction and concurrency control.</p> <p><b>Assignment 1</b></p> <p>Ms Venu</p> <p><b>Emerging Database Technologies:</b> Mobile databases, Multimedia Databases, Geographic Information systems (GIS); XML and Internet Databases: Structured,</p>

	<p>Semi-structured and Unstructured Data, Introduction to web databases and XML, Structure of XML data.</p>
<p>April 2023</p>	<p>Dr Neelam Dahiya:</p> <p><b>Object Relational Database and Information Retrieval:</b> Database design for an ORDBMS – Nested relations and collections; Storage and access methods, Query processing and Optimization, Advance Querying: User define data types, manipulating objects table, object views; Information Retrieval &amp; ways to retrieve information.</p> <p><b>Parallel Database:</b> Architectures for parallel databases, Inter and Intra Query parallelism, Inter and Intra Query operations, Parallelizing individual operations, Sorting, Joins, Pipelining.</p> <p>Ms Venu:</p> <p><b>Data Warehouse and OLAP Technology:</b> Need for data warehouse, Definition, Goals of data Warehouse, Challenges faced during Warehouse Construction, Advantages, Types of Warehouse: Data Mart, Virtual Warehouse and Enterprise Warehouse; Components of Warehouse: Fact data, Dimension data, Fact table and Dimension table, Designing fact tables; Pre-requisite Phases: Extract, Transform and load process; Warehouse Schema: star, snowflake and galaxy schemas; OLTP vs OLAP, Strengths of OLAP, Applications of OLAP.</p> <p><b>Test 1</b></p>
<p>May 2023</p>	<p>Dr Neelam Dahiya:</p> <p><b>Distributed Database:</b> Architectures for Distributed Database, Data Fragmentation, Replication, and Allocation Techniques for Distributed Database Design, Query processing in Distributed Databases; Concurrency Control and Recovery in Distributed Databases.</p> <p><b>Overview of Client Server Architectures:</b> Centralized and Client-Server architectures, Server architectures.</p> <p><b>Test 2</b></p> <p>Ms Venu</p> <p><b>Multidimensional data models:</b> Data Cubes &amp; Data Cuboids, Lattice; OLAP operations: Advantages, Types: Roll up, Drill down, Pivot, Slice &amp;</p>

*Neelam* *Ms*



	Dice operations, Applications; OLAP Server: Need, Types: ROLAP, MOLAP and HOLAP, Features; Data Warehouse Implementation, Introduction to Efficient computation of data cubes.  <b>Assignment 2</b>
<b>JUNE 2023</b>	Dr Neelam Dahiya: Revision  Ms Venu : Revision

*Neelam*      *Venu*

## Lesson Plan for Session 2022-2023(odd sem)

Dr Sanjay Katyal

Class :MCA 1<sup>ST</sup> Sem

Subject : System Software & Operating System

Subject code: MCA-102

<b>Aug 2022</b>	<p>Dr Sanjay Katyal: <b>UNIT-I</b></p> <p>Introduction: System V/s Application Software, Relative advantage and disadvantages of Machine, Assembly and High-Level Languages; Language Translators: Assembler, Compiler and Interpreter, Macros, Debuggers, Text editors, Debug monitor; Overview of Loading, Linking and Relocation.</p> <p>Basics of Operating Systems: Evolution, Objectives &amp; Functions, Characteristics; Classification of Operating Systems, Windows v/s Linux Operating Systems, Mobile Operating Systems, Network based Operating Systems.</p> <p>Process Concepts: Definition, Process Relationship, Process states, Process State transitions, Process Control Block, Context switching.</p>
<b>Sept 2022</b>	<p>Dr Sanjay Katyal: <b>UNIT-II</b></p> <p>Threads: Multicore Programming, Multithreading Models, Threading Issues.</p> <p>Process Scheduling: Definition, Preemptive v/s Non-preemptive Scheduling, Scheduling Criteria, Scheduling Algorithms: FCFS, SJF, RR etc; Multiprocessor scheduling, Scheduling Algorithm Evaluation.</p> <p>Process Synchronization: Critical Section Problem, Peterson's Solution, Hardware Solution, Semaphores, Classical Problems of Synchronization: Reader's &amp; Writer Problem, Dining Philosopher Problem; Monitors.</p>
<b>Oct 2022</b>	<p>Dr Sanjay Katyal: <b>UNIT-III</b></p> <p>Deadlocks System Model. Deadlock Principles, Deadlock Characterization. Methods for Handling Deadlocks Deadlock Prevention, Deadlock Avoidance: Resource Allocation Graph Algorithm, Banker's Algorithm; Deadlock Detection, Recovery from Deadlock.</p> <p>Memory Management: Basic Memory Management, Logical and Physical address map, Memory allocation, Fragmentation and Compaction, Paging and its disadvantages, Virtual Memory, Locality of reference, Page Fault, Working Set, Demand paging concept, Page Replacement policies. Overview of Input/Output &amp; File Management, Disk Scheduling Algorithms.</p>

<b>Nov 2022</b>	<b>Dr Sanjay Katyal:</b> <b>UNIT-IV</b>  Linux Operating System: Design Principles, Kernel Modules, Shells, Editors, Process Management, Scheduling, Memory Management, File Systems, Input and Output; Interprocess Communication, Network Structure. Linux Utilities: File handling utilities, Security by file permissions, Process utilities, Disk utilities, Networking commands, Filters, Text Processing utilities and backup utilities. Shell programming: Introduction, shell responsibilities, pipes and Redirection, Running a shell scripts, The shell as a programming language, Shell meta characters, File name substitution, Shell variables, Command substitution, Shell commands, The environment, Quoting, Test command, control structures, arithmetic in shell, shell script examples, interrupt processing, functions, debugging shell scripts.
<b>Dec 2022</b>	<b>Dr Sanjay Katyal:</b> <b>Revision, Test &amp; Assignments</b>



## Lesson Plan for Session 2022-2023(Even Sem)

06- Feb -2023 to 03 June 2023

Dr Sanjay Katyal

Class :MCA 4th Sem

Subject : Android Programming

Subject code: MCA-401

<b>FEB 2023</b>	Dr Sanjay Katyal: <b>UNIT – I</b> Introduction: Mobile Applications, Characteristics and Benefits, Application Model, Infrastructure and Managing Resources, Mobile Software Engineering, Frameworks and Tools, Mobile devices Profiles. Application Design: Memory Management, Design patterns for limited memory. Workflow for Application Development, Techniques for composing Applications, Dynamic Linking, Plug-ins and rules of thumb for using DLLs, Concurrency and Resource Management,
<b>March 2023</b>	Dr Sanjay Katyal: <b>UNIT-II</b> Google Android: Introduction, JDK & ADK, Android Application Architecture, Traditional Programming Model and Android, Activities, Intents, Tasks, Services, Android Framework: GUI and MVC Architecture, Fragments and Multi-platform development, Creating Widgets: Layouts, Shadows, Gradients; Applications with multiple screens. Development: Intents and Services, Storing and Retrieving data, Graphics and Multimedia, Telephony, Location based services, Packaging and Deployment.
<b>April 2023</b>	Dr Sanjay Katyal: <b>UNIT-III</b> Android Applications: Working with Android, Various life cycles for applications, Building an User Interface: Blank UI, Folding and Unfolding a scalable UI, Making Activity, Fragment, Multiple layouts; Content Provider, Location and Mapping: location based services, Mapping, Google Maps activity, Working with Map View and Map Activity, Sensors and Near Field Communication, Native libraries and headers, Building client server applications.

<b>May 2023</b>	<b>Dr Sanjay Katyal:</b> <b>UNIT-IV</b>  Using Google Maps, GPS and Wi-Fi Integration, Android Notification, Audio manager, Bluetooth; Camera and Sensor integration, Sending SMS, Phone Calls. Runtime Environment for Applications, Callbacks and Override in application, Concurrency, Serialization, Application Signing, API keys for Google Maps, Publishing Android Application; Introduction to Flutter, Android features, UI, implementation.
<b>JUNE 2023</b>	<b>Dr Sanjay Katyal:</b>  <b>Revision, Test &amp; Assignments</b>



## LESSON PLAN 2022-2023

**Subject: Computer fundamental (BCA 1<sup>st</sup> SEM)**

**Faculty: RITU SHARMA**

<b>Aug 2022</b>	Computer Fundamentals: Generations of Computers Definition, Block Diagram along with its components,
<b>September 2022</b>	characteristics & classification of computers Limitations of Computers Human-Being VS Computer, Applications of computers in various fields. : Memory: Concept of primary & secondary memory RAM, ROM, types of ROM, Cache Memory, flash memory Doubt Clearance, Test & Assignment
<b>October 2022</b>	Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, optical disks i.e. CD, DVD, virtual memory. Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software. Overview of operating system: Definition, functions of operating system, concept of multiprogramming multitasking, multithreading, multiprocessing, time-sharing, real time, single-user & multi-user operating system, Computer Virus: Definition, types of viruses, Characteristics of viruses, anti-virus software. Doubt Clearance, Test & Assignment
<b>November 2022</b>	Computer Languages: Analogy with natural language, machine language, assembly language, high-level languages forth generation languages, compiler, interpreter, assembler, Linker, Loader, characteristics of a good programming language, Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming. Documentation, Structured programming concepts, Programming methodologies viz. top-down and bottomup programming Advantages and disadvantages of Structured programming. Doubt Clearance, Test & Assignment
<b>December 2022</b>	Overview of Networking: An introduction to computer networking, Network types (LAN, WAN, MAN), Network topologies, Modes of data transmission, Forms of data transmission Transmission channels(media), Introduction to internet and its uses, Applications of internet, Hardware and Software requirements for internet, Intranet, Applications of intranet. Doubt Clearance, Test & Assignment

*Ritu*

Subject DBMS(BCA 3<sup>rd</sup> Sem)

Faculty : RITU SHARMA

<b>Aug 2022</b>	Basic Concepts – Data, Information, Records and files. Traditional file –based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach, advantages and disadvantages of database system, components of database system Doubt Clearance, Test &Assignment
<b>September 2022</b>	Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, DBMS users, Advantages and Disadvantages of DBMS DBMS languages. Roles in the Database Environment - Data and Database Administrator Database Designers, Applications Developers and Users . Doubt Clearance, Test &Assignment
<b>October 2022</b>	Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas, Mappings and Instances . Data Independence – Logical and Physical Data Independence . Classification of Database Management System, Centralized and Client Server architecture: to DBMS Data Models Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Doubt Clearance, Test &Assignment
<b>November 2022</b>	Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams abstraction and integration. Basic Concepts of Hierarchical and Network Data Model Relational Data Model-Brief History, Relational Model Terminology-Relational Data Structure, Database Relations Properties of Relations, Keys, Domains, Integrity Constraints over Relations. Relational algebra, Relational calculus, Relational database design Functional dependencies Doubt Clearance, Test &Assignment
<b>December 2022</b>	Modification anomalies, 1st to 3rd NFs, BCNF, 4th and 5th NFs, computing closures of set FDs, SQL Data types, Basic Queries in SQL, Insert, Delete and Update Statements, Views, Query processing General strategies of query processing, query optimization, query processor, concept of security, concurrency and recovery. Doubt Clearance, Test &Assignment

Subject: DCN ( BCA 3<sup>rd</sup> Sem)

Faculty: Ms. RITU SHARMA

Aug 2022	Introduction to Computer Communications and Networking Technologies; Uses of Computer Networks Network Devices, Nodes, and Hosts; Types of Computer Networks and their Topologies; Network Software: Network Design issues and Protocols Connection-Oriented and Connectionless Services; Network Applications and Application Protocol Computer Communications and Networking Models: Decentralized and Centralized Systems, Distributed Systems, Client/Server Model, Peer-to-Peer Model Doubt Clearance, Test & Assignment
September 2022	Web Based Model, Network Architecture and the OSI Reference Model, TCP/IP reference model Example Networks: The Internet, X.25, Frame Relay, ATM. Analog and Digital Communications Concepts: Concept of data, signal, channel, bid-rate maximum data-rate of channel, Representing Data as Analog Signals, Representing Data as Digital Signals Doubt Clearance, Test & Assignment
October 2022	Data Rate and Bandwidth, Capacity, Baud Rate; Asynchronous and synchronous transmission data encoding techniques, Modulation techniques, Digital Carrier Systems; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Dialup Networking; Analog Modem Concepts; DSL Service. Data Link Layer: Framing, Flow Control, Error Control; Error Detection and Correction; Doubt Clearance, Test & Assignment
November 2022	Sliding Window Protocols; Media Access Control: Random Access Protocols, Token Passing Protocols; Token Ring; Introduction to LAN technologies: Ethernet, switched Ethernet, VLAN, fast Ethernet, gigabit Ethernet, token ring, FDDI, Wireless LANs; Bluetooth; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways. Doubt Clearance, Test & Assignment

*Ritu Sharma*



December 2022

Network Layer and Routing Concepts: Virtual Circuits and Datagrams;  
Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector  
Routing; Link State Routing, Hierarchical Routing; Congestion Control  
Algorithms; Internetworking;  
Network Security Issues: Security threats; Encryption Methods;  
Authentication; Symmetric – Key Algorithms; Network Security Issues:  
Security threats; Encryption Methods; Authentication; Symmetric –  
Key Algorithms; Public-Key Algorithms.  
Doubt Clearance, Test & Assignment

**Subject: SOFTWARE ENGINEERING (BCA 4<sup>th</sup> SEM B)**

**Faculty: Ms. Ritu Sharma**

<b>FEB 2023</b>	<p><b>Introduction:</b> Software Crisis, Software Processes &amp; Characteristics, Software life cycle models, Waterfall, Prototype, Evolutionary and Spiral Models.</p> <p><b>Software Requirements Analysis &amp; Specifications:</b> Requirement engineering, requirement elicitation techniques like FAST, QFD, requirements analysis using DFD, Data dictionaries</p>
<b>MARCH 2023</b>	<p>ER Diagrams, Requirements documentation, Nature of SRS, Characteristics &amp; organization of SRS . <b>UNIT – II</b> The Management spectrum, The People The Problem, The Process, The Project. <b>Software Project Planning:</b> Size Estimation like lines of Code &amp; Function Count, Cost Estimation Models, COCOMO, Risk Management.</p> <p>Test &amp; Assignment</p>
<b>APRIL 2023</b>	<p>Cohesion &amp; Coupling, Classification of Cohesiveness &amp; Coupling, Function Oriented Design, Object Oriented Design, Software Metrics: Software measurements: What &amp; Why, Token Count, Halstead Software Science Measures, Design Metrics, Data Structure Metrics <b>Software Implementation:</b> Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design, Good coding style</p> <p>Doubt Clearance, Test &amp; Assignment</p>
<b>MAY 2023</b>	<p><b>Software Testing:</b> Testing Process, Design of Test Cases, Types of Testing, Functional Testing, Structural Testing, Test Activities, Unit Testing, Integration Testing and System Testing, Debugging Activities.</p> <p><b>Software Maintenance:</b> Management of Maintenance, Maintenance Process, Reverse Engineering, Software Re-engineering, Configuration Management, Documentation, Program design, Debugging, Types of errors in programming, Documentation. Structured programming concepts, Programming methodologies viz. top-down and bottomup programming</p> <p>Advantages and disadvantages of Structured programming. Doubt Clearance, Test &amp; Assignment</p>
<b>JUNE 2023</b>	<p>Doubt Clearance, revision</p>

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# INTRODUCTION TO .NET

Faculty :Ritu Sharma

BCA 6<sup>th</sup> Sem  
Subject: .NET

Feb 2023	The Framework of .Net Building blocks of .Net Platform (the CLR, CTS and CLS). Features of .Net, Deploying the .Net Runtime Architecture of .Net platform, Introduction to namespaces & type distinction. Types & Object in .Net, the evolution of Web development .Class Libraries in .Net
March 2023	Introduction to Assemblies & Manifest in .Net Metadata & attributes, Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes Introduction to C# Characteristics of C#, Data types., Value types, reference types, default value, constants Variables, scope of variables, boxing and unboxing.
April 2023	Operators and expressions Arithmetic, relational, logical, bitwise, special operators. Evolution of expressions, operator precedence & associativity . Control constructs in C# Decision making, loops, Classes & methods. Class, methods, constructors, destructors, overloading of operators & functions.
May 2023	Inheritance & polymorphism, visibility control, overriding & methods, interfaces, abstract class & methods, sealed classes Advanced features of C# Exception handling & error handling Automatic memory management, Input and output (Directories, Files, and streams).
June 2023	Doubt Clearance, Revision

<b>Feb 2023</b>	<p>Introduction: History of World Wide Web, HTML &amp; HTTP, Scripting Language, Scripting v/s Non-Scripting Languages, Webpages: Static v/s dynamic, Anatomy of a Webpage, The Document Object Model &amp; Containment Hierarchy,</p> <p>Object Referencing, Script and 'Script Fo/ Tag, Script Library, Role of Browsers, Role of Operating System, Concept of Client Side Programming, Difference between ServerSide Programming and Cline Side Programming, Necessity of Client-Side Programming, Pros and Cons of Client Side Programming.</p>
<b>March 2023</b>	<p>Client-Side Scripting Languages*: Brief introduction, basic features, relative advantages &amp; disadvantages of popular Client-Side Scripting Languages: HTML, XHTML, CSS, Java Script, JQuery, React, Angular, Vue, VB Script, AJAX</p> <p>Javascript: The Javascript Language-History and Versions, Java v/s Javascript, JavaScript v/s VBScript Dynamic HTML &amp; .javascript, Applications of Javascript.</p> <p>Javascript Programming Constructs: Variables and Data Types, Literals, Built in Objects String, Math and Date Objects; Data type conversion, Expressions and Evaluation, Operators, Control Structures, Functions: Function parameters, Variable Scope;</p> <p>Arrays: Creating, Accessing Array data, Parallel Arrays, Document objects in Arrays. Host Objects: introduction, The Window Object: Accessing Window properties &amp; methods, creating window, Window Properties &amp; Methods Location Object; History Object; Document Object; Link Object.</p>
<b>April 2023</b>	<p>Forms: Form Object, Form Controls as Objects: Text Related Objects, Button Object, Checkbox Object, Radio Object, Select Object, image Object &amp; image Rollovers; Passing Form Data and Elements to Functions; Submitting &amp; Pre-validating Forms.</p> <p>Scripting Frames: Frames: Parents &amp; Children, Referencing among Family Members; Controlling Navigation Frames: Navigation Bars</p> <p>Java script Debuggers; Browsers and the Document Object Model (DoM), Levels-intrinsic Event Handling-Modifying Element Style-The Document TreeDOM Event Handling-Accommodating Noncompliant Browsers Properties of window.CSS: introduction and Features; Difference between css1, css2 &amp; css3; style Rules, Style Rule Locations: style tag, Extern a l</p>

*Ritu Sharma*

May2023	Style Sheets, Style definition in individual tags; CSS core syntax; Text properties; CSS box model: Box dimensions, Padding, Border, Margins;Selectors: Matching Element by Name, Universal Selector, Matching Element by class, Matching Element by identifier, Matching Element that contains a specific attribute, Matching child, descendent and adjacent sibling elements; Element Positioning; Control Element Visibility; Inheritance; Pseudo Classes & PseudoElements; Shorthand Expression, Property Value Metrics. Styles & Formatting Fonts and Text Formatting: Web typography; Describing Fonts; Font Families Font Style & Size; Colors & Backgrounds: Foreground & Background Color; Sizing Element's Background; Background Images; Repeatin & Scrolling Background Images; Positioning Background Images. Tables Define Table Style; Control Table Attributes.
June 2023	Doubt Clearance, revision

## LESSON PLAN 2022-23

Subject: LOC (BCA 1st Sem)

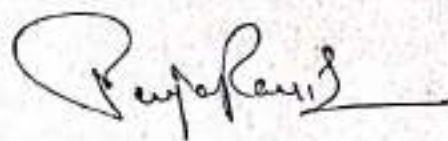
Faculty: Pooja Rani

<b>Aug 2022</b>	Information Representation: Number Systems, Binary Arithmetic,
<b>September 2022</b>	Fixed-point and Floating point representation of numbers BCD Codes, Error detecting and correcting codes, Character Representation – ASCII, EBCDIC, Unicode Binary Logic: Boolean Algebra, Boolean Theorems, Boolean Functions. Doubt Clearance, Test & Assignment
<b>October 2022</b>	Truth Tables, Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions Venn Diagram, Karnaugh Maps. Doubt Clearance, Test & Assignment
<b>November 2022</b>	Digital Logic: Introduction to digital signals, Basic Gates – AND, OR, NOT, Universal Gates and their implementation – NAND, NOR, Other Gates – XOR, XNOR etc. NAND, NOR, AND-OR-INVERT, OR-AND-INVERT implementations of digital circuits. Doubt Clearance, Test & Assignment
<b>December 2022</b>	Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor, Parallel binary adder/subtractor Encoders, Decoders, Multiplexers, Demultiplexers, Comparators, Code Converters, BCD to Seven-Segment Decoder. Doubt Clearance, Test & Assignment



Subject: ADVANCE JAVA (MCA 3<sup>rd</sup> Sem)  
Faculty: Pooja Rani

<b>Aug 2022</b>	Java Swing: Introduction to Swing, Swing features, Components Containers, Creating Swing Applet, Exploring Swing: JLabel, JTextField, Swing buttons, JTabbedPane, JTree, JTable. Doubt Clearance, Test & Assignment
<b>September 2022</b>	Spring: Introduction, Architecture, Spring modules, Dependency Injection, IOC containers, Constructor Injection Dependent Object: Constructor Injection with maps, collections, Bean Definition, Constructor Injection inheriting Bean, Developing simple Applications. Introduction to Operating System JDBC: Types of JDBC Drivers, The Connectivity Model, Navigating the ResultSet object's contents, Manipulating records of a ResultSet Object through user Interface Database Connectivity, Data Manipulation using prepared Statements; Doubt Clearance, Test & Assignment
<b>October 2022</b>	JAVA RMI: Remote Method Invocation: RMI Architecture, A simple server client applications using RMI, Spring JDBC framework. Process concept, Operation on processes SERVLETS: Background, Life cycle of servlet, A Simple servlet, Servlet API, Get and Post request, Accessing a Servlet using an HTML page; Doubt Clearance, Test & Assignment
<b>November 2022</b>	JSP:- Basics and Overview, JSP architecture, JSP tags and JSP expressions, Lifecycle of a JSP Model, View Controller, JSP Objects, Working with Databases. STRUTS AND HIBERNATE MVC Architecture: POJO class, Doubt Clearance, Test & Assignment
<b>December 2022</b>	Struts: Overview, Architecture, Struts Action Class, Using Struts HTML Tags, Developing Application with Struts Struts -JDBC connection; Introduction to Hibernate, Hibernate Architecture, Hibernate Application. Doubt Clearance, Test & Assignment



<b>Aug 2022</b>	Introduction – visual basic
<b>September 2022</b>	Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and eventdriven programming languages, The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window, Form designer, Form layout, Immediate window. Visual Development and Event Driven programming. Basics of Programming: Variables: Declaring variables, Types of variables, Converting variables types, User-defined data types, Forcing variable declaration, Scope & lifetime of variables. Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logical operators. I/O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement. Doubt Clearance, Test &Assignment
<b>October 2022</b>	Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case. Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays, Static & dynamic arrays, Arrays of array. Looping statements: Do-loops, For-next, While-wend, Exit statement. Nested control structures Collections: Adding, Removing, Counting, Returning items in a collection, Processing a collection. Doubt Clearance, Test &Assignment
<b>November 2022</b>	Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland –Hodgeman polygon clipping. Programming with VB: Procedures: General & event procedures, Subroutines, Functions, Calling procedures, Arguments- passing mechanisms, Optional arguments, Named arguments, Functions returning custom data types, Functions returning arrays. Doubt Clearance, Test &Assignment
<b>December 2022</b>	Hiding & showing forms, Load & unload statements, creating menu, submenu, popup menus Working with forms and menus : Adding multiple forms in VB, Activate & deactivate events, Form-load event, menu designing in VB Simple programs in VB. Doubt Clearance, Test &Assignment



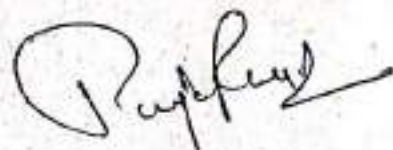


# Structured Systems Analysis and Design

BCA 2<sup>nd</sup> Sem  
Subject: SAD

Faculty: Pooja Rani

Feb 2023	Introduction to system, Definition and characteristics of a system, Elements of system, Types of system, System development life cycle, Role of system analyst, Analyst/user interface, System planning and initial investigation: Introduction Bases for planning in system analysis, Sources of project requests, Initial investigation, Fact finding, Information gathering tools, Fact analysis, Determination of feasibility.
March 2023	Structured analysis, Tools of structured analysis: DFD, Data dictionary, Flow charts, Gantt charts, decision tree, decision table, structured English, Pros and cons of each tool, Feasibility study: Introduction, Objective, Types, Steps in feasibility analysis Feasibility report, Oral presentation, Cost and benefit analysis: Identification of costs and benefits, classification of costs and benefits, Methods of determining costs and benefits, Interpret results of analysis and take final action.
April 2023	System Design: System design objective, Logical and physical design, Design Methodologies, structured design, Form-Driven methodology(IPO charts), structured walkthrough, Input/Output and form design: Input design, Objectives of input design, Output design, Objectives of output design, Form design, Classification of forms, requirements of form design, Types of forms, Layout considerations, Form control.
May 2023	System testing: Introduction, Objectives of testing, Test plan, testing techniques/Types of system tests Quality assurance goals in system life cycle, System implementation, Process of implementation System evaluation, System maintenance and its types, System documentation, Forms of documentation.
June 2023	Doubt Clearance, Revision

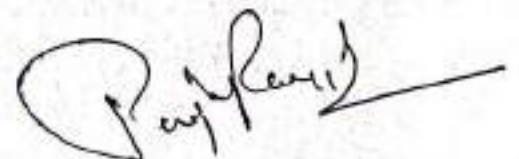


## Object Oriented Programming Using C++

BCA 4<sup>th</sup> Sem  
Subject: OOPS

Faculty: Pooja Rani

<b>Feb 2023</b>	Object Oriented Programming Concepts : Procedural Language and Object Oriented approach, Characteristics of OOP, user defined types, polymorphism and encapsulation. Getting started with C++: syntax, data types, variables, string, function, namespace and exception, operators. flow control, recursion, array and pointer, structure .
<b>March 2023</b>	Abstracting Mechanism: classes, private and public. Constructor and Destructor , member function, static members, references; Memory Management: new, delete, object copying. Copy constructor, assignment operator, this input/output
<b>April 2023</b>	Inheritance and Polymorphism: Derived Class and Base Class. Different types of Inheritance. Overriding member function, Abstract Class, Public and Private Inheritance, Ambiguity in Multiple inheritance .Virtual function, Friend function, Static function.
<b>May 2023</b>	Exception Handling: Exception and derived class, function exception declaration, unexpected exception. exception when handling exception, resource capture and release. Template and Standard Template Library: Template classes, declaration. template functions, namespace, string, iterators, hashes, iostreams and other types.
<b>June 2023</b>	Doubt Clearance, Revision

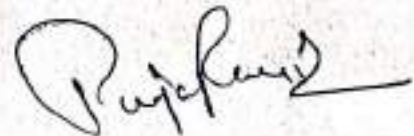


## INTRODUCTION TO .NET

BCA 6<sup>th</sup> Sem  
Subject: .NET

Faculty: Pooja Rani

Feb 2023	The Framework of .Net Building blocks of .Net Platform (the CLR, CTS and CLS). Features of .Net, Deploying the .Net Runtime Architecture of .Net platform, Introduction to namespaces & type distinction. Types & Object in .Net, the evolution of Web development .Class Libraries in .Net
March 2023	Introduction to Assemblies & Manifest in .Net Metadata & attributes, Class Libraries in .Net, Introduction to Assemblies & Manifest in .Net, Metadata & attributes Introduction to C# Characteristics of C#, Data types., Value types, reference types, default value, constants Variables, scope of variables, boxing and unboxing.
April 2023	Operators and expressions Arithmetic, relational, logical, bitwise, special operators. Evolution of expressions, operator precedence & associativity . Control constructs in C# Decision making, loops, Classes & methods. Class, methods, constructors, destructors, overloading of operators & functions.
May 2023	Inheritance & polymorphism, visibility control, overriding & methods, interfaces, abstract class & methods, sealed classes Advanced features of C# Exception handling & error handling Automatic memory management, Input and output (Directories, Files, and streams).
June 2023	Doubt Clearance, Revision



## LESSON PLAN 2022-23

Subject: PC SOWTWARE(BCA 1<sup>st</sup> Sem)

Faculty: KANTA

<b>Aug 2022</b>	MS-Windows: Operating system-Definition & functions, basics of Windows. Basic components of windows, icons, types of icons,
<b>September 2022</b>	taskbar activating windows, using desktop, title bar, running applications Exploring computer, managing files and folders copying and moving files and folders Using windows accessories. Control panel – display properties, adding and removing software and hardware setting date and time, screensaver and appearance. Documentation Using MS-Word - Introduction to word processing interface, Doubt Clearance, Test &Assignment
<b>October 2022</b>	Toolbars, Menus, Creating & Editing Document, and Formatting Document. Finding and replacing text, Format painter, Header and footer, Drop cap, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Previewing and printing document. Advance Features of MS-Word-Mail Merge, Macros, Tables. File Management, Printing, Styles, linking and embedding object, Template. Doubt Clearance, Test &Assignment
<b>November 2022</b>	Electronic Spread Sheet using MS-Excel - Introduction to MS-Excel, Cell, cell address, Creating & Editing Worksheet, Formatting and Essential Operations, Moving and copying data in excel. Header and footer, Formulas and Functions, Charts, Cell referencing, Page setup, Macros.Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation.Database Management using Excel-Sorting, Filtering, Validation, What if analysis with Goal Seek, Conditional formatting. Doubt Clearance, Test &Assignment
<b>December 2022</b>	Presentation using MS-PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts, Word Art, Layering art Objects Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect. Doubt Clearance, Test &Assignment

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**Subject: OPERATING SYSTEM(BCA 3<sup>rd</sup> Sem)**

**Faculty: KANTA**

<b>Aug 2022</b>	Introduction to Operating System
<b>September 2022</b>	Its need and operating System services, Early systems Structures - Simple Batch, Multi programmed, time shared. Personal Computer, Parallel, Distributed Systems, Real-Time Systems. Process concept, Operation on processes, Cooperating Processes. Doubt Clearance, Test &Assignment
<b>October 2022</b>	Threads and Inter process Communication Basic concepts, Scheduling criteria Scheduling algorithms : FCFS, SJF, Round Robin & Queue Algorithms. Deadlocks: Deadlock characterization Methods for handling deadlocks, Banker's Algorithm Doubt Clearance, Test &Assignment
<b>November 2022</b>	Memory Management: Logical versus Physical address space, Swapping. Contiguous allocation, Paging, Segmentation Virtual Memory: Demand paging. Performance of demand paging. Page replacement, Page replacement algorithms, Thrashing. Doubt Clearance, Test &Assignment
<b>December 2022</b>	File management: File system Structure, Allocation methods: Contiguous allocation, Linked allocation, Indexed allocation, Free space management: Bit vector, Linked list, Grouping, Counting Device Management: Disk structure, Disk scheduling: FCFS, SSTF, SCAN, C-SCAN, LOOK, C-LOOK. Doubt Clearance, Test &Assignment

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Subject: AI(MCA 1st Sem)

Faculty: KANTA

<b>October 2022</b>	Definition and applications of artificial intelligence, Problem solving: Defining the problem as state space search, Production system, Problem characteristics, Problem system characteristics, Search techniques: Generate and test Hill climbing, Best first search, A* algorithm, Problem reduction, Expert system: Definition,, Role of knowledge in expert system, Architecture of expert system. Expert system development life cycle: Problem selection, Prototype construction, Formalization Implementation, Evaluation. Doubt Clearance, Test &Assignment
<b>November 2022</b>	Knowledge acquisition: Knowledge engineer, Cognitive behavior, Acquisition techniques, Knowledge representation: Level of representation, Knowledge representation schemes, Formal logic, Inference Engine, Semantic net, Frame, Scripts. Perception: Sensing, Speech recognition, Vision, Action, Neural networks : Introduction, Comparison of artificial neural networks with biological neural networks, Learning in neural networks,Perceptrons, Back propagation networks, application of neural networks. Doubt Clearance, Test &Assignment
<b>December 2022</b>	Fuzzy logic : Definition, Difference between Boolean and Fuzzy logic fuzzy subset, fuzzy membership function, fuzzy expert system, Inference process for fuzzy expert system, fuzzy controller . Notion of Fuzziness, Memberhip Functions, Fuzzification and Defuzzification. Programming in Logic (PROLOG): Introduction, Prolog variables, Using rules Input and Output predicates, Fail and cut predicates, Recursion, Arithmetic operation, Compound object,Dynamic database, Lists, String, File operations. Doubt Clearance, Test &Assignment

Kanta

LESSON PLAN 2022-23

Subject: Computer fundamental(BCA Ist Sem)

Faculty: Ms. Renu Saini

Aug 2022	Computer Fundamentals: Generations of Computers Definition, Block Diagram along with its components,
September 2022	characteristics & classification of computers Limitations of Computers Human-Being VS Computer, Applications of computers in various fields. : Memory: Concept of primary & secondary memory RAM, ROM, types of ROM, Cache Memory, flash memory Doubt Clearance, Test & Assignment
October 2022	Secondary storage devices: Sequential & direct access devices viz. magnetic tape, magnetic disk, optical disks i.e. CD, DVD, virtual memory. Computer hardware & software: I/O devices, definition of software, relationship between hardware and software, types of software. Overview of operating system: Definition, functions of operating system, concept of multiprogramming multitasking, multithreading, multiprocessing, time-sharing, real time, single-user & multi-user operating system, Computer Virus: Definition, types of viruses, Characteristics of viruses, anti-virus software. Doubt Clearance, Test & Assignment
November 2022	Computer Languages: Analogy with natural language, machine language, assembly language, high-level languages forth generation languages, compiler, interpreter, assembler, Linker. Loader , characteristics of a good programming language, Planning the Computer Program: Concept of problem solving, Problem definition, Program design, Debugging, Types of errors in programming, Documentation. Structured programming concepts, Programming methodologies viz. top-down and bottomup programming Advantages and disadvantages of Structured programming. Doubt Clearance, Test & Assignment
December 2022	Overview of Networking: An introduction to computer networking, Network types (LAN, WAN, MAN), Network topologies, Modes of data transmission, Forms of data transmission Transmission channels(media), Introduction to internet and its uses, Applications of internet, Hardware and Software requirements for internet, Intranet, Applications of intranet. Doubt Clearance, Test & Assignment

Aug 2022	Basic Concepts – Data, Information, Records and files, Traditional file –based Systems-File Based Approach-Limitations of File Based Approach, Database Approach-Characteristics of Database Approach, advantages and disadvantages of database system, components of database system Doubt Clearance, Test & Assignment
September 2022	Database Management System (DBMS), Components of DBMS Environment, DBMS Functions and Components, DBMS users, Advantages and Disadvantages of DBMS DBMS languages. Roles in the Database Environment - Data and Database Administrator Database Designers, Applications Developers and Users . Doubt Clearance, Test & Assignment
October 2022	Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas, Mappings and Instances . Data Independence – Logical and Physical Data Independence . Classification of Database Management System, Centralized and Client Server architecture to DBMS Data Models Records- based Data Models, Object-based Data Models, Physical Data Models and Conceptual Modeling. Doubt Clearance, Test & Assignment
November 2022	Entity-Relationship Model – Entity Types, Entity Sets, Attributes Relationship Types, Relationship Instances and ER Diagrams abstraction and integration. Basic Concepts of Hierarchical and Network Data Model Relational Data Model-Brief History, Relational Model Terminology-Relational Data Structure, Database Relations Properties of Relations, Keys, Domains, Integrity Constraints over Relations. Relational algebra, Relational calculus, Relational database design Functional dependencies Doubt Clearance, Test & Assignment
December 2022	Modification anomalies, 1st to 3rd NFs, BCNF, 4th and 5th NFs, computing closures: of set FDs, SQL Data types, Basic Queries in SQL, Insert, Delete and Update Statements, Views, Query processing General strategies of query processing, query optimization, query processor, concept of security, concurrency and recovery. Doubt Clearance, Test & Assignment

Renu



Subject: DUN (BCA 3<sup>rd</sup> Sem) .

Faculty: Ms. Renu Saini

Aug 2022	<p>Introduction to Computer Communications and Networking Technologies; Uses of Computer Networks Network Devices, Nodes, and Hosts; Types of Computer Networks and their Topologies; Network Software: Network Design issues and Protocols Connection-Oriented and Connectionless Services; Network Applications and Application Protocol Computer Communications and Networking Models: Decentralized and Centralized Systems, Distributed Systems, Client/Server Model, Peer-to-Peer Model Doubt Clearance, Test &amp; Assignment</p>
September 2022	<p>Web Based Model, Network Architecture and the OSI Reference Model, TCP/IP reference model Example Networks: The Internet, X.25, Frame Relay, ATM. Analog and Digital Communications Concepts: Concept of data, signal, channel, bit-rate maximum data-rate of channel, Representing Data as Analog Signals. Representing Data as Digital Signals Doubt Clearance, Test &amp; Assignment</p>
October 2022	<p>Data Rate and Bandwidth, Capacity, Baud Rate; Asynchronous and synchronous transmission data encoding techniques, Modulation techniques, Digital Carrier Systems; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Dialup Networking; Analog Modem Concepts; DSL Service. Data Link Layer: Framing, Flow Control, Error Control; Error Detection and Correction; Doubt Clearance, Test &amp; Assignment</p>
November 2022	<p>Sliding Window Protocols; Media Access Control: Random Access Protocols, Token Passing Protocols; Token Ring; Introduction to LAN technologies: Ethernet, switched Ethernet, VLAN, fast Ethernet, gigabit Ethernet, token ring, FDDI, Wireless LANs; Bluetooth; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways. Doubt Clearance, Test &amp; Assignment</p>
December 2022	<p>Network Layer and Routing Concepts: Virtual Circuits and Datagrams; Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Link State Routing, Hierarchical Routing; Congestion Control Algorithms; Internetworking; Network Security Issues: Security threats; Encryption Methods; Authentication; Symmetric – Key Algorithms; Network Security Issues: Security threats; Encryption Methods; Authentication; Symmetric – Key Algorithms; Public-Key Algorithms. Doubt Clearance, Test &amp; Assignment</p>

*Renu Saini*

## LESSON PLAN 2022-23

**Subject:** SOFTWARE ENGINEERING (BCA 4<sup>TH</sup> SEM B)

**Faculty:** Ms. Renu Saini

<b>FEB 2023</b>	<b>UNIT – I</b> <b>Introduction:</b> Software Crisis, Software Processes & Characteristics, Software life cycle models, Waterfall, Prototype, Evolutionary and Spiral Models. <b>Software Requirements Analysis &amp; Specifications:</b> Requirement engineering, requirement elicitation techniques like FAST, QFD, requirements analysis using DFD, Data dictionaries
<b>MARCH 2023</b>	ER Diagrams, Requirements documentation, Nature of SRS, Characteristics & organization of SRS . <b>UNIT – II</b> The Management spectrum, The People The Problem, The Process, The Project. <b>Software Project Planning:</b> Size Estimation like lines of Code & Function Count, Cost Estimation Models, COCOMO, Risk Management.  Test & Assignment
<b>APRIL 2023</b>	Cohesion & Coupling, Classification of Cohesiveness & Coupling, Function Oriented Design, Object Oriented Design, Software Metrics: Software measurements: What & Why, Token Count, Halstead Software Science Measures, Design Metrics, Data Structure Metrics <b>Software Implementation:</b> Relationship between design and implementation, Implementation issues and programming support environment, Coding the procedural design, Good coding style  Doubt Clearance, Test & Assignment
<b>MAY 2023</b>	<b>Software Testing:</b> Testing Process, Design of Test Cases, Types of Testing, Functional Testing, Structural Testing, Test Activities, Unit Testing, Integration Testing and System Testing, Debugging Activities.  <b>Software Maintenance:</b> Management of Maintenance, Maintenance Process, Reverse Engineering, Software Re-engineering, Configuration Management, Documentation. Program design, Debugging, Types of errors in programming, Documentation. Structured programming concepts, Programming methodologies viz. top-down and bottomup programming  Advantages and disadvantages of Structured programming. Doubt Clearance, Test & Assignment
<b>JUNE 2023</b>	Doubt Clearance, revision

LESSON PLAN 2022-23

**Subject:** Object Technologies & Programming using Java (BCA 6<sup>th</sup> SEM A& B)

**Faculty:** Ms. Renu Saini

<b>FEB 2023</b>	<p><b>Object Oriented Methodology-1:</b> Paradigms of Programming Languages, Evolution of OO ,Methodology, Basic Concepts of OO Approach, Comparison of Object Oriented and Procedure Oriented Approaches, Benefits of OOPs, Introduction to Common OO Language, Applications of OOPs .</p> <p><b>Object Oriented Methodology-2:</b> Classes and Objects, Abstraction and Encapsulation, Inheritance, Method Overriding and Polymorphism.</p>
<b>MARCH 2023</b>	<p><b>Java Language Basics:</b> Introduction To Java, Basic Features, Java Virtual Machine Concepts, Primitive Data Type And Variables, Java Operators, Expressions, Statements and Arrays. <b>Object Oriented Concepts:</b> Class and Objects-- Class Fundamentals, Creating objects , Assigning object reference variables; Introducing Methods, Static methods, Constructors , Overloading constructors; This Keyword; Using Objects as Parameters, Argument passing, Returning objects , Method overloading, Garbage Collection, The Finalize ( ) Method. <b>Inheritance and Polymorphism:</b> Inheritance Basics, Access Control, Multilevel Inheritance, Method Overriding, Abstract Classes, Polymorphism, Final Keyword.</p> <p>Test &amp;Assignment</p>
<b>APRIL 2023</b>	<p><b>Packages :</b> Defining Package, CLASSPATH, Package naming, Accessibility of Packages , using Package Members. <b>Interfaces:</b> Implementing Interfaces, Interface and Abstract Classes, Extends and Implements together .</p> <p><b>Exceptions Handling :</b> Exception , Handling of Exception, Using try-catch , Catching Multiple Exceptions , Using finally clause , Types of Exceptions, Throwing Exceptions, Writing Exception Subclasses procedural design,</p> <p>Doubt Clearance, Test &amp;Assignment</p>
<b>MAY 2023</b>	<p><b>Multithreading :</b> Introduction , The Main Thread, Java Thread Model, Thread Priorities, Synchronization in Java, Inter thread Communication.</p> <p><b>I/O in Java :</b> I/O Basics, Streams and Stream Classes ,The Predefined Streams, Reading from, and Writing to, Console, Reading and Writing Files , The Transient and Volatile Modifiers , Using Instance of Native Methods.</p> <p><b>Strings and Characters :</b> Fundamentals of Characters and Strings, The String Class , String Operations , Data Conversion using Value Of ( ) Methods , String Buffer Class and Methods.</p> <p>Doubt Clearance, Test &amp;Assignment</p>
<b>JUNE 2023</b>	<p>Doubt Clearance, revision</p>

R/S

## LESSON PLAN 2022-23

**Subject:** The JAVA Programming Language (MCA 2<sup>nd</sup> SEM)

**Faculty:** Ms. Renu Saini

<b>FEB 2023</b>	<p><b>Introduction:</b> The History and Evolution of Java of JAVA, features of JAVA:- Platform independent, Robust etc, JAVA Environment. Hardware and Software Requirements, Byte Code, Installing JDK, Difference between C++ and JAVA, Command-Line Arguments, Environment Variables, System Utilities, Command-Line I/O Objects. PATH and CLASSPATH.</p> <p><b>JAVA as Programming Language:</b> Java as Object Oriented Language, JAVA Program Structure, JAVA literals, Data Type, Variable &amp; Arrays in JAVA.</p>
<b>MARCH 2023</b>	<p><b>JAVA Programming Constructs:</b> Operators and Expressions, Precedence Rules and Associativity, Type conversion and casting, Control Structures in JAVA.</p> <p><b>JAVA Object Oriented Basics:</b> Classes and Objects in JAVA, Variables &amp; Methods in Classes: declaration and invocation, constructors and garbage collection, static and this keywords.</p> <p>Test &amp; Assignment</p>
<b>APRIL 2023</b>	<p><b>Inheritance in JAVA:</b> Types, Access Specifiers, Class vs Interface, Extending vs Implementation of Interface, overloading vs overriding, Abstract Class, super &amp; final keywords.</p> <p><b>JAVA as Internet Programming Language:</b> Applets: difference from normal application, life cycle, Applet tag, Passing parameters and display output. AWT: Basics, Component and Container Layouts, AWT vs Swing</p> <p>Doubt Clearance, Test &amp; Assignment</p>
<b>MAY 2023</b>	<p><b>Exception Handling:</b> The concept of Exceptions. Types of Exceptions, Dealing with Exceptions, Exception Objects, Defining Your Own Exceptions.</p> <p><b>Multithreading Programming:</b> The Java Thread Model, Understanding Threads, The Main Thread, Creating a Thread, Creating Multiple Threads, Thread Priorities. Synchronization.</p> <p><b>Input/Output in Java:</b> I/O Basic, Byte and Character Structures, I/O Classes, Reading Console Input Writing Console Output, Reading and Writing on Files, Random Access Files,</p> <p>Storing and Retrieving Objects from File, Stream Benefits.</p>
<b>JUNE 2023</b>	Doubt Clearance, revision



## LESSON PLAN 2022-23(ODD)

Subject: COMPUTER GRAPHICS(BCA 5<sup>TH</sup> Sem)

Faculty: RAJESH KUMAR

<b>August 2022</b>	Graphics Primitives: Introduction to computer graphics, Basics of Graphics systems, Application areas of Computer Graphics, overview of graphics systems, video-display devices, and raster-scan systems, random scan systems, graphics monitors and workstations and input devices Output Primitives: Points and lines, line drawing algorithms, mid-point circle and ellipse algorithms. Filled area primitives: Scan line polygon fill algorithm, boundary fill and flood fill algorithms . Doubt Clearance, Test &Assignment
<b>September 2022</b>	2-D Geometrical Transforms: Translation, scaling, rotation, reflection and shear transformations, matrix representations and homogeneous coordinates, composite transforms, transformations between coordinate systems. 2-D Viewing: The viewing pipeline, viewing coordinate reference frame, window to viewport coordinate transformation, viewing functions, Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland –Hodgeman polygon clipping algorithm. Doubt Clearance, Test &Assignment
<b>October 2022</b>	3-D Object Representation: Polygon surfaces, quadric surfaces, spline representation, Hermite curve, Bezier curve and B-Spline curves, Bezier and B-Spline surfaces. Basic illumination models, polygon-rendering methods Doubt Clearance, Test &Assignment
<b>Nov. 2022</b>	3-D Geometric Transformations: Translation, rotation, scaling, reflection and shear transformations, composite transformations. Doubt Clearance, Test &Assignment
<b>Dec. 2022</b>	3-D Viewing: Viewing pipeline, viewing coordinates, view volume and general projection transforms and clipping. Doubt Clearance, Test &Assignment

Rajesh

Subject: Visual Basic(BCA 5<sup>th</sup> Sem)

Faculty: RAJESH KUMAR

<b>Aug 2022</b>	Introduction – visual basic
<b>September 2022</b>	Introduction to VB: Visual & non-visual programming, Procedural, Object-oriented and eventdriven programming languages, The VB environment: Menu bar, Toolbar, Project explorer, Toolbox, Properties window, Form designer, Form layout, Immediate window. Visual Development and Event Driven programming. Basics of Programming: Variables: Declaring variables, Types of variables, Converting variables types, User-defined data types, Forcing variable declaration, Scope & lifetime of variables. Constants: Named & intrinsic. Operators: Arithmetic, Relational & Logical operators. I/O in VB: Various controls for I/O in VB, Message box, Input Box, Print statement. Doubt Clearance, Test &Assignment
<b>October 2022</b>	Programming with VB: Decisions and conditions: If statement, If-then-else, Select-case. Arrays: Declaring and using arrays, one-dimensional and multi-dimensional arrays, Static & dynamic arrays, Arrays of array. Looping statements: Do-loops, For-next, While-wend, Exit statement. Nested control structures Collections: Adding, Removing, Counting, Returning items in a collection, Processing a collection. Doubt Clearance, Test &Assignment
<b>November 2022</b>	Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland – Hodgeman polygon clipping. Programming with VB: Procedures: General & event procedures, Subroutines, Functions, Calling procedures, Arguments-passing mechanisms, Optional arguments, Named arguments, Functions returning custom data types, Functions returning arrays. Doubt Clearance, Test &Assignment
<b>December 2022</b>	Hiding & showing forms, Load & unload statements, creating menu, submenu, popup menus Working with forms and menus : Adding multiple forms in VB, Activate & deactivate events, Form-load event, menu designing in VB Simple programs in VB. Doubt Clearance, Test &Assignment

**Subject: OPERATING SYSTEM(BCA 3<sup>rd</sup> Sem)**

**Faculty: RAJESH KUMAR**

<b>Aug 2022</b>	Introduction to Operating System
<b>September 2022</b>	Its need and operating System services, Early systems Structures - Simple Batch, Multi programmed, time shared. Personal Computer, Parallel, Distributed Systems, Real-Time Systems. Process concept, Operation on processes, Cooperating Processes. Doubt Clearance, Test &Assignment
<b>October 2022</b>	Threads and Inter process Communication Basic concepts, Scheduling criteria Scheduling algorithms : FCFS, SJF, Round Robin & Queue Algorithms. Deadlocks: Deadlock characterization Methods for handling deadlocks, Banker's Algorithm Doubt Clearance, Test &Assignment
<b>November 2022</b>	Memory Management: Logical versus Physical address space, Swapping. Contiguous allocation, Paging, Segmentation Virtual Memory: Demand paging, Performance of demand paging. Page replacement, Page replacement algorithms, Thrashing. Doubt Clearance, Test &Assignment
<b>December 2022</b>	File management: File system Structure, Allocation methods: Contiguous allocation, Linked allocation, Indexed allocation, Free space management: Bit vector, Linked list, Grouping, Counting Device Management: Disk structure, Disk scheduling: FCFS, SSTF, SCAN, C-SCAN, LOOK, C-LOOK. Doubt Clearance, Test &Assignment

*Rajesh*

## LESSON PLAN-2022-23 (EVEN SEM)

BCA1ST YEAR

SUB:-C LANGUAGE

Faculty :RAJESH KUMAR

<b>Feb 2023</b>	<p>Overview of C: History of C, Importance of C, Elements of C: C character set, identifiers and keywords</p> <p>Data types, Constants and Variables, Assignment statement, Symbolic constant, Structure of a C Program, printf(), scanf() Functions</p> <p>Operators &amp; Expression: Arithmetic, relational, logical, bitwise, unary, assignment, shorthand assignment operators, conditional operators and increment and decrement operators,</p> <p>Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy &amp; associativity.</p>
<b>March 2023</b>	<p>Decision making &amp; branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder</p> <p>switch statement, goto statement</p> <p>Decision making &amp; looping: For, while, and do-while loop, jumps in loops, break, continue statement, Nested loops.</p> <p>Functions: Standard Mathematical functions, Input/output: Unformatted &amp; formatted I/O function in C</p>
<b>April 2023</b>	<p>Input functions viz. getch(), getche(), getchar(), gets(), output functions viz., putchar(), putchar(), puts(), string manipulation functions. Arrays, strings and pointers, User defined functions: Introduction/Definition, prototype, Local and global variables, passing parameters, recursion.</p> <p>initialization, processing an array, passing arrays to functions, Array of Strings. String constant and variables</p>
<b>May 2023</b>	<p>Declaration and initialization of string, Input/output of string data, Introduction to pointers.</p> <p>Storage classes in C: auto, extern, register and static storage class, their scope, storage, &amp; lifetime.</p> <p>Algorithm development</p> <p>Flowcharting and Development of efficient program in C.</p>
<b>June 2023</b>	<p>Doubt Clearance, Revision</p>

Rajesh



## LESSON PLAN-2022-23 (EVEN SEM)

BCA1ST YEAR

SUB:-C LANGUAGE

Faculty :RAJESH KUMAR

<b>Feb 2023</b>	<p>Overview of C: History of C, Importance of C, Elements of C: C character set, identifiers and keywords</p> <p>Data types, Constants and Variables, Assignment statement, Symbolic constant, Structure of a C Program, printf(), scanf() Functions</p> <p>Operators &amp; Expression: Arithmetic, relational, logical, bitwise, unary, assignment, shorthand assignment operators, conditional operators and increment and decrement operators,</p> <p>Arithmetic expressions, evaluation of arithmetic expression, type casting and conversion, operator hierarchy &amp; associativity.</p>
<b>March 2023</b>	<p>Decision making &amp; branching: Decision making with IF statement, IF-ELSE statement, Nested IF statement, ELSE-IF ladder</p> <p>switch statement, goto statement</p> <p>Decision making &amp; looping: For, while, and do-while loop, jumps in loops, break, continue statement, Nested loops.</p> <p>Functions: Standard Mathematical functions, Input/output: Unformatted &amp; formatted I/O function in C</p>
<b>April 2023</b>	<p>Input functions viz. getch(), getche(), getchar(), gets(), output functions viz., putch(), putchar(), puts(), string manipulation functions. Arrays, strings and pointers, User defined functions: Introduction/Definition, prototype, Local and global variables, passing parameters, recursion.</p> <p>initialization, processing an array, passing arrays to functions, Array of Strings. String constant and variables</p>
<b>May 2023</b>	<p>Declaration and initialization of string, Input/output of string data, Introduction to pointers.</p> <p>Storage classes in C: auto, extern, register and static storage class, their scope, storage, &amp; lifetime.</p> <p>Algorithm development</p> <p>Flowcharting and Development of efficient program in C.</p>
<b>June 2023</b>	<p>Doubt Clearance, Revision</p>

Rajesh

# LESSON PLAN-2022-23 (EVEN SEM)

BCA-2ND YEAR  
SUB:OOPS

Faculty :RAJESH KUMAR

<b>Feb 2023</b>	<p>Object Oriented Programming Concepts : Procedural Language and Object Oriented approach</p> <p>Characteristics of OOP, user defined types, polymorphism and encapsulation.</p> <p>Getting started with C++: syntax, data types, variables, string, function, namespace and exception, operators.</p> <p>flow control, recursion, array and pointer, structure. Template and Standard Template Library: Template classes, declaration.</p>
<b>March 2023</b>	<p>Abstracting Mechanism: classes, private and public. template functions, namespace, string, iterators, hashes, iostreams and other types. Constructor and Destructor , member function, static members, references;</p> <p>Memory Management: new, delete, object copying. copy constructor, assignment operator, input/output</p>
<b>April 2023</b>	<p>Inheritance and Polymorphism: Derived Class and Base Class, Different types of Inheritance.</p> <p>Overriding member function, Abstract Class, Public and Private Inheritance, Ambiguity in Multiple inheritance. exception when handling exception, resource capture and release.</p>
<b>May 2023</b>	<p>Virtual function, Friend function, Static function. Exception Handling: Exception and derived class, function exception declaration, unexpected exception.</p>
<b>June 2023</b>	<p>Doubt Clearance, Revision</p>

**LESSON PLAN-2022-23 (EVEN SEM)****BCA-1ST YEAR****SUB:-MFCS****Faculty :RAJESH KUMAR**

<b>Feb 2023</b>	Measure of Central Tendency, Preparing frequency , distribution table Mean, Mode, Median, Measure of Dispersion: Range, Algorithms, merits and demerits, Exponentiation, How to compute fast exponentiation Linear Search, Binary Search, "Big Oh" notation, Worst case, Advantage of logarithmic algorithms over linear algorithms, complexity Graphs, Types of graphs, degree of vertex, sub graph, isomorphic and homeomorphism graphs
<b>March 2023</b>	Adjacent and incidence matrices, Path Circuit , Trees, Minimum distance trees Recursively defined function. Merge sort, Insertion sort, Bubble sort, and Decimal to Binary. Principle of Mathematical induction, GCD
<b>April 2023</b>	Euclidean algorithm LHRR, LHRRWCCs, DCRR. Recursive procedures, Fibonacci numbers, congruence's and equivalence relations Public key encryption schemes. Minimum weight and Minimum distance spanning trees
<b>May 2023</b>	Eulerian, Hamiltonian path circuit. Variance and Standard Deviations, Correlation and Regression.
<b>June 2023</b>	Doubt Clearance, Revision

Rajesh

## LESSON PLAN 2022-23(ODD)

Subject: LOC (BCA 1st Sem)

Faculty: LALITA DEVI

<b>Aug 2022</b>	Information Representation: Number Systems, Binary Arithmetic,
<b>September 2022</b>	Fixed-point and Floating point representation of numbers BCD Codes, Error detecting and correcting codes, Character Representation – ASCII, EBCDIC, Unicode Binary Logic: Boolean Algebra, Boolean Theorems, Boolean Functions. Doubt Clearance, Test & Assignment
<b>October 2022</b>	Truth Tables, Canonical and Standard forms of Boolean functions, Simplification of Boolean Functions Venn Diagram, Karnaugh Maps. Doubt Clearance, Test & Assignment
<b>November 2022</b>	Digital Logic: Introduction to digital signals, Basic Gates – AND, OR, NOT, Universal Gates and their implementation – NAND, NOR, Other Gates – XOR, XNOR etc. NAND, NOR, AND-OR-INVERT, OR-AND-INVERT implementations of digital circuits. Doubt Clearance, Test & Assignment
<b>December 2022</b>	Combinational Circuits: Half-Adder, Full-Adder, Half-Subtractor, Full-Subtractor, Parallel binary adder/subtractor Encoders, Decoders, Multiplexers, Demultiplexers, Comparators, Code Converters, BCD to Seven-Segment Decoder. Doubt Clearance, Test & Assignment

*Lalita*

<b>August 2022</b>	Graphics Primitives: Introduction to computer graphics, Basics of Graphics systems, Application areas of Computer Graphics, overview of graphics systems, video-display devices, and raster-scan systems, random scan systems, graphics monitors and workstations and input devices Output Primitives: Points and lines, line drawing algorithms, mid-point circle and ellipse algorithms. Filled area primitives: Scan line polygon fill algorithm. boundary fill and flood fill algorithms . Doubt Clearance, Test &Assignment
<b>September 2022</b>	2-D Geometrical Transforms: Translation, scaling, rotation, reflection and shear transformations, matrix representations and homogeneous coordinates, composite transforms, transformations between coordinate systems. 2-D Viewing: The viewing pipeline, viewing coordinate reference frame, window to viewport coordinate transformation, viewing functions, Cohen-Sutherland and Cyrus-beck line clipping algorithms, Sutherland -Hodgeman polygon clipping algorithm. Doubt Clearance, Test &Assignment
<b>October 2022</b>	3-D Object Representation: Polygon surfaces, quadric surfaces, spline representation, Hermite curve, Bezier curve and B-Spline curves, Bezier and B-Spline surfaces. Basic illumination models, polygon-rendering methods Doubt Clearance, Test &Assignment
<b>Nov. 2022</b>	3-D Geometric Transformations: Translation, rotation, scaling, reflection and shear transformations, composite transformations. Doubt Clearance, Test &Assignment
<b>Dec. 2022</b>	3-D Viewing: Viewing pipeline, viewing coordinates, view volume and general projection transforms and clipping. Doubt Clearance, Test &Assignment

Lalita

**Subject: DCN (MCA 1<sup>ST</sup> Sem)**

**Faculty: LALITA DEVI**

<b>Aug 2022</b>	<p>Introduction to Computer Communications and Networking Technologies; Uses of Computer Networks Network Devices, Nodes, and Hosts; Types of Computer Networks and their Topologies; Network Software; Network Design issues and Protocols Connection-Oriented and Connectionless Services; Network Applications and Application Protocol Computer Communications and Networking Models: Decentralized and Centralized Systems, Distributed Systems, Client/Server Model, Peer-to-Peer Model Doubt Clearance, Test &amp; Assignment</p>
<b>September 2022</b>	<p>Web Based Model, Network Architecture and the OSI Reference Model, TCP/IP reference model Example Networks: The Internet, X.25, Frame Relay, ATM. Analog and Digital Communications Concepts: Concept of data, signal, channel, bit-rate maximum data-rate of channel, Representing Data as Analog Signals, Representing Data as Digital Signals Doubt Clearance, Test &amp; Assignment</p>
<b>October 2022</b>	<p>Data Rate and Bandwidth, Capacity, Baud Rate; Asynchronous and synchronous transmission data encoding techniques, Modulation techniques, Digital Carrier Systems; Guided and Wireless Transmission Media; Communication Satellites; Switching and Multiplexing; Dialup Networking; Analog Modem Concepts; DSL Service. Data Link Layer: Framing, Flow Control, Error Control; Error Detection and Correction; Doubt Clearance, Test &amp; Assignment</p>
<b>November 2022</b>	<p>Sliding Window Protocols; Media Access Control: Random Access Protocols, Token Passing Protocols; Token Ring; Introduction to LAN technologies: Ethernet, switched Ethernet, VLAN, fast Ethernet, gigabit Ethernet, token ring, FDDI, Wireless LANs; Bluetooth; Network Hardware Components: Connectors, Transceivers, Repeaters, Hubs, Network Interface Cards and PC Cards, Bridges, Switches, Routers, Gateways. Doubt Clearance, Test &amp; Assignment</p>
<b>December 2022</b>	<p>Network Layer and Routing Concepts: Virtual Circuits and Datagrams; Routing Algorithms: Flooding, Shortest Path Routing, Distance Vector Routing; Link State Routing, Hierarchical Routing; Congestion Control Algorithms; Internetworking; Network Security Issues: Security threats; Encryption Methods; Authentication; Symmetric – Key Algorithms; Network Security Issues: Security threats; Encryption Methods; Authentication; Symmetric – Key Algorithms; Public-Key Algorithms. Doubt Clearance, Test &amp; Assignment</p>

## LESSON PLAN-2022-23 (EVEN SEM)

MCA 1ST YEAR

SUB.-THEORY OF COMPUTATION

Faculty :LALITA DEVI

<b>Feb 2023</b>	<p><b>Theory of Computation:</b> Formal Language, Language Vs Grammar, Non-Computational</p> <p>Problems, Diagonal Argument, Russels's Paradox, Chomsky Hierarchy of Languages</p> <p><b>System Programming &amp; Compiler:</b> Introduction to System programs; Assembler Vs</p> <p>Compiler Vs Interpreter; <b>Structure of a Compiler:</b> Lexical Analysis, Syntax Analysis,</p> <p>Semantic Analysis, Intermediate Code Generation, Code Optimization, Code Generation,</p> <p>Symbol Table Management, Grouping of phases into passes, compiler construction tools.</p> <p>Applications of Compiler Technology.</p>
<b>March 2023</b>	<p><b>Lexical Analysis:</b> The role of lexical analyser, Lexical Analysis vs Parsing, Specification of</p> <p>Tokens, Recognition of Tokens, Introduction to <i>lex</i>.</p> <p><b>Regular Language Models:</b> Regular Languages, Regular Grammars, Regular Expressions,</p> <p>Properties of Regular Language, Pumping Lemma, Non-Regular Languages, Deterministic</p> <p>Finite Automaton (DFA), Non-Deterministic Finite Automaton (NFA), Equivalence of DFA and NFA.</p>
<b>April 2023</b>	<p><b>Syntax Analysis:</b> Basic Concepts: Syntax definition, Parse Tree and Derivations, Ambiguity,</p> <p>Associativity &amp; Precedence of Operations; Context Free Grammars Vs Regular Expressions;</p> <p>Lexical Analysis Vs Syntactical Analysis, Eliminating Ambiguity,</p>

## LESSON PLAN-2022-23 (EVEN SEM)

BCA 1<sup>ST</sup> YEAR  
SUB.-LOC-II

Faculty : LALITA DEVI

<b>Feb 2023</b>	Sequential Logic: Characteristics, Flip-Flops, State table, state diagram and state equations. Flip-flop excitation tables D type, JK, T type and Master Slave flip-flops. Instruction set selection, Instruction cycle, Instruction Format and Addressing Modes. Clocked RS, DMA transfer, I/O Channels, IOP
<b>March 2023</b>	Sequential Circuits: Designing registers – Serial Input Serial Output(SISO), Designing counters – Asynchronous and Synchronous Binary Counters, Module-N Counters and Up-Down Counters
<b>April 2023</b>	Serial Input Parallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers. Instruction Design & I/O Organization: Machine instruction, I/O Interface, Interrupt structure,
<b>May 2023</b>	Memory & I/O Devices: Memory Parameters, Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers. Semiconductor RAM, ROM. Program-controlled, Interrupt-controlled.
<b>June 2023</b>	Doubt Clearance, Revision

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	<p>Eliminating Left Recursion.</p> <p><b>Parsing:</b> Top Down Parsing: Recursive Descent, Predictive Parsing, LL(1) Grammars,</p> <p>Bottom up Parsing: Reductions, Handle Pruning, SR parsing, LR Parser, LALR Parser;</p> <p>Introduction to <i>Yacc</i>.</p>
May 2023	<p><b>Code Generation and Code Optimization:</b> Control-flow, Data-flow Analysis, Local Optimization, Global Optimization, Loop Optimization, Peep-Hole Optimization,</p> <p>Instruction Scheduling.</p> <p><b>Context Free Language:</b> Pushdown Automaton (PDA), Non-Deterministic Pushdown Automaton (NPDA), Context Free Grammar, Chomsky Normal Form, Greibach Normal Form, Ambiguity, Equivalence of PDA's and Context Free Grammars; Properties of Context Free Language.</p> <p>An introduction to the Turing Machine. Issue of unsolvable problems and computational complexity.</p>
June 2023	Doubt Clearance, Revision

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## LESSON PLAN-2022-23 (EVEN SEM)

BCA 2<sup>ND</sup> YEAR

SUB:-WEB DESIGNING

Faculty :LALITA DEVI

<b>Feb 2023</b>	Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features  Web Browsers; Web Servers; Hypertext Transfer Protocol, Overview of TCP/IP and its services; URLs;  Searching and Web-Casting Techniques, Search Engines and Search Tools  Doubt Clearance, , Test &Assignment
<b>March 2023</b>	Web Publishing: Hosting your Site; Internet Service Provider;  Web terminologies, Phases of Planning and designing your Web Site; Steps for developing your Site; Choosing the contents;  Home Page; Domain Names, Front page views, Adding pictures, Links, Backgrounds, Relating Front Page to DHTML.

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	<p>Creating a Website and the Markup Languages (HTML, DHTML)</p> <p>Doubt Clearance, , Test &amp; Assignment.</p>
<b>April 2023</b>	<p>Web Development: Introduction to HTML; Hypertext</p> <p>HTML; HTML Document Features; HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background</p> <p>Formatting text; Page layouts</p>
<b>May 2023</b>	<p>Images; Ordered and Unordered lists; Inserting Graphics; Table Creation and Layouts</p> <p>Frame Creation and Layouts; Working with Forms and Menus; Working with Radio Buttons</p> <p>Check Boxes; Text Boxes; DHTML: Dynamic HTML, Features of DHTML, CSSP(cascading style sheet positioning)</p> <p>JSSS(JavaScript assisted style sheet), Layers of Netscape, The ID attributes, DHTML events</p>
<b>June 2023</b>	<p>Doubt Clearance, Revision</p>

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## LESSON PLAN 2022-23

Subject: MIS

Faculty: MS. JYOTI RANI

<b>Aug 2022</b>	<b>Week1:</b> Decision support systems – support systems for planning, control and decision-making
<b>September 2022</b>	<b>Week1:</b> introduction to system and Basic System Concepts, Types of Systems, The Systems <b>Week2:</b> Approach, Information System: Definition & Characteristics, Types of information, Role of <b>Week3:</b> Information in Decision-Making, Sub-Systems of an Information system: EDP <b>Week4:</b> MIS management levels, EDP/MIS/DSS
<b>October 2022</b>	<b>Week1:</b> -An overview of Management Information System: Definition & Characteristics, <b>Week2:</b> Components of MIS, Frame Work for Understanding MIS: Information requirements <b>Week3:</b> Levels of Management, Simon's Model of decision-Making <b>Week4:</b> Structured Vs Un-structured decisions, Formal vs. Informal systems  Doubt Clearance, Test &Assignment
<b>November 2022</b>	<b>Week1:</b> Developing Information Systems <b>Week2:</b> Analysis& Design of Information Systems: <b>Week3:</b> Implementation& Evaluation, <b>Week4:</b> Pitfalls in MIS Development Doubt Clearance, Test &Assignment
<b>December 2022</b>	<b>Week1:</b> Functional MIS: A Study of Personnel, <b>Week 2:</b> Financial and production MIS <b>Week 3:</b> Introduction to ebusiness systems, <b>Week4:</b> ecommerce – technologies, applications,  Doubt Clearance, Test &Assignment



## LESSON PLAN 2022-23

Subject: ML WITH PYTHON

Faculty: MS. JYOTI RANI

<b>Aug 2022</b>	INTRODUCTION – Learning , Machine Learning, Machine Learning Applications, History of ML
<b>September 2022</b>	Life cycle of Machine Learning, Machine Learning and Data Science ,AI, Types of Learning, Supervised Machine Learning, Unsupervised Machine Learning, Supervised vs Unsupervised Learning, Advantages of Machine Learning, Disadvantages of Machine Learning, Install Anaconda & Python, AI vs Machine Learning, How to Get Datasets, Data Pre-processing.
<b>October 2022</b>	Supervised Learning; Regression Analysis, Linear Regression, Simple Linear Regression, Multiple Linear Regression, Polynomial Regression, Underfitting and Overfitting, Advantages of Using Linear Regression, Limitations of Linear Regression, Logistic Regression, -Classification; Logistic Regression, Decision tree learning, Types of Decision Tree; Classification, Regression, Decision tree learning algorithm, Advantages of Decision tree learning, Entropy, Information gain, Issues in Decision tree learning.
<b>November 2022</b>	Introduction, Types of support vector kernel – (Linear kernel, polynomial kernel, and radial basis kernel), Hyperplane – (Decision surface), Properties of SVM, and Issues in SVM, Random forest. - Probability Fundamentals; joint probability, conditional Probability, Bayes theorem, Concept learning, Naïve Bayes classifier and its applications. ; k-means clustering, k-Nearest Neighbor Learning, Association rule learning, Apriori algorithm, Neural networks
<b>December 2022</b>	Programming Language, History and Origin of Python Language, Features of Python, Limitations, Major Applications of Python, Getting, Installing Python, Setting up Path and Environment Variables, Running Python, First Python Program, Python Interactive Help Feature, Python differences from other languages. Keywords, Identifiers, Python Statement, Indentation, Documentation, Variables, Multiple Assignment, Understanding Data Type, Data Type Conversion, Python Input and Output Functions, Import command. Operators in Python, Expressions, Precedence, Associativity of Operators, Non Associative Operators.

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## LESSON PLAN 2022-23

**Subject: COMPUTER APPLICATIONS FOR MASS MEDIA**

**Faculty: MS. JYOTI RANI**

<b>Aug 2022</b>	Origin and growth of computer
<b>September 2022</b>	Various parts and functioning of computer , computer hardware and software,
<b>October 2022</b>	Introduction to MS Word and MS Excel
<b>November 2022</b>	Introduction to MS Powerpoint, introduction to Photoshop, QuarkXpress
<b>December 2022</b>	Introduction to Adobe Premiere Pro Practical Work.

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## LESSON PLAN-2022-23 (EVEN SEM)

BCA 3<sup>RD</sup> YEAR

SUB:- E-Commerce

Faculty :JYOTI RANI

<b>Feb 2023</b>	<p>Electronic Commerce: Overview of Electronic Commerce, Scope of Electronic Commerce, Traditional Commerce vs. Electronic Commerce, Impact of E-Commerce, Electronic Markets, Internet Commerce e-commerce in perspective, Application of E Commerce in Direct Marketing and Selling, Obstacles in adopting E-Commerce Applications; Future of Ecommerce</p>
<b>March 2023</b>	<p>Value Chains in electronic Commerce, Supply chain, Porter's value chain Model Inter Organizational value chains, Strategic Business unit chains, Industry value chains. Security Threats to E-commerce: Security Overview, Computer Security Classification Copyright and Intellectual Property, security Policy and Integrated Security, Intellectual Property Threats, electronic Commerce Threats Clients Threats, Communication Channel Threats, server Threats</p>
<b>April 2023</b>	<p>Value Chains in electronic Commerce, Supply chain, Porter's value chain Model Inter Organizational value chains, Strategic Business unit chains, Industry value chains. Security Threats to E-commerce: Security Overview, Computer Security Classification Copyright and Intellectual Property, security Policy and Integrated Security, Intellectual Property Threats, electronic Commerce Threats Clients Threats, Communication Channel Threats, server Threats</p>
<b>May 2023</b>	<p>Business to Business E-Commerce: Inter-organizational Transitions, Credit Transaction Trade Cycle a variety of transactions. Electronic Data Interchange (EDI): Introduction to EDI Benefits of EDI, EDI Technology, EDI standards, EDI Communication EDI Implementation, EDI agreement, EDI security</p>
<b>June 2023</b>	<p>Doubt Clearance, Revision</p>

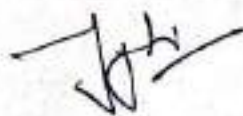
## LESSON PLAN-2022-23 (EVEN SEM)

BCA 2<sup>nd</sup> YEAR

SUB:- DS-II

Faculty :JYOTI RANI

<b>Feb 2023</b>	<p>Tree: Header nodes, Threads, Binary search trees, Searching, Insertion and deletion in a Binary search tree</p> <p>AVL search trees, Insertion and deletion in AVL search tree, m-way search tree</p> <p>Searching, Insertion and deletion in an m-way search tree, B-trees, Searching, Insertion and deletion in a B-tree</p> <p>B+tree, Huffman's algorithm, General trees.</p>
<b>March 2023</b>	<p>Graphs: Warshall's algorithm for shortest path, Dijkstra algorithm for shortest path</p> <p>Operations on graphs, Traversal of graph, Topological sorting.</p> <p>Sorting: Internal &amp; external sorting, Radix sort, Quick sort, Heap sort, Merge sort,</p> <p>Tournament sort, Searching: Liner search, binary search, merging</p>
<b>April 2023</b>	<p>Comparison of various sorting and searching algorithms on the basis of their complexity.</p> <p>Files: Physical storage devices and their characteristics, Attributes of a file viz fields, records, Fixed and variable length records, Primary and secondary keys, Classification of files, File Operations</p>
<b>May 2023</b>	<p>Comparison of various types of files, File organization: Serial, Sequential, Indexed-sequential, Random-access/Direct,</p> <p>Inverted, Multi list file organization. Hashing: Introduction, Hashing functions and Collision resolution methods.</p>
<b>June 2023</b>	<p>Doubt Clearance, Revision</p>

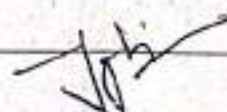




## LESSON PLAN-2022-23 (EVEN SEM)

Faculty : JYOTI RANI

<b>Feb 2023</b>	<p>Sequential Logic: Characteristics, Flip-Flops, State table, state diagram and state equations. Flip-flop excitation tables D type, JK, T type and Master Slave flip-flops. Instruction set selection, Instruction cycle, Instruction Format and Addressing Modes. Clocked RS, DMA transfer, I/O Channels, IOP</p>
<b>March 2023</b>	<p>Sequential Circuits: Designing registers – Serial Input Serial Output(SISO), Designing counters – Asynchronous and Synchronous Binary Counters, Modulo-N Counters and Up-Down Counters</p>
<b>April 2023</b>	<p>Serial Input Parallel Output (SIPO), Parallel Input Serial Output (PISO), Parallel Input Parallel Output (PIPO) and shift registers. Instruction Design &amp; I/O Organization: Machine instruction, I/O Interface, Interrupt structure,</p>
<b>May 2023</b>	<p>Memory &amp; I/O Devices: Memory Parameters, Magnetic and Optical Storage devices, Flash memory, I/O Devices and their controllers. Semiconductor RAM, ROM. Program-controlled, Interrupt-controlled.</p>
<b>June 2023</b>	<p>Doubt Clearance, Revision</p>



## LESSON PLAN 2022-23(EVEN SEMESTER)

**Subject: MCA-405E(S/W Testing and Quality Assurance)**

**Faculty : SHEELA SHARMA**

<b>FEBRUARY 2023</b>	Minimizing Risks, writing a policy for software Testing, Economics of Testing, Testing an Organizational issues, Management Support for Software Testing, Building A structured approach for S/W testing, Building a test strategy, S/w testing Process, S/W testing Guidelines, workbench concepts, customization of S/W testing process, Process preparation checklist, S/W testing techniques, Dynamic Testing:- Black Box Testing, White Box Testing, Validation Testing, Static Testing, Regression Testing, Unit Test1.
<b>MARCH 2023</b>	S/W Testing Strategy strategies: Approach, Issues, Integration, incremental, system, Alpha, Beta testing etc., comparative Evaluation of Techniques, Testing tools, system , Dynamic analysis tools, Test data Generators, Debugger, Test Drivers etc. Technical Metrics for S/W: Quality factors, Framework:, Metrics for analysis, Design, Test code etc., unit test 2.
<b>APRIL 2023</b>	Object Oriented Testing: Introduction to Object Oriented Testing, Path Testing, State Testing, class testing, Testing web applications:, web testing, Functional Testing, User interface Testing, Usability Testing, Configuration and compatible Testing, Security Testing, Performance Testing, Database Testing, Post deployment Testing. Rational Rose S/W: Introduction, Features, various types of S/W testing using Rational Rose. Unit Test 3
<b>MAY 2023</b>	S/w quality Assurance and Standards: S/W Quality, S/W Quality Challenges, S/w Quality Factors, S/w Quality assurance: Concepts, components, importance and essence, FTR, structured walk through technique etc. , S/w Quality Management Standards, Management and its role in S/W quality Assurance, Quality Standard: ISO 9000 and comparison ISO standards, CMM, CMMI, Unit test 4

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## LESSON PLAN 2022-23(EVEN SEMESTER)

**Subject: BCA – 206 : WEB DESIGNING**

**Faculty: SHEELA SHARMA**

<b>FEBRUARY 2023</b>	Introduction to Internet and World Wide Web; Evolution and History of World Wide Web; Basic features; Web Browsers; Web Servers; Hypertext Transfer Protocol, Overview of TCP/IP and its services; URLs; Searching and Web-Casting Techniques; Search Engines and Search Tools, Assignment 1, Test1
<b>MARCH 2023</b>	Web Publishing: Hosting your Site; Internet Service Provider; Web terminologies, Phases of Planning and designing your Web Site; Steps for developing your Site; Choosing the contents; Home Page; Domain Names, Front page views, Adding pictures, Links, Backgrounds, Relating Front Page to DHTML. Creating a Website and the Markup Languages (HTML, DHTML); Test 2, Assignment2
<b>APRIL 2023</b>	Web Development: Introduction to HTML; Hypertext and HTML; HTML Document Features; HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background; Formatting text; Page layouts, Test3, Assignment 3
<b>MAY 2023</b>	Web Development: Introduction to HTML; Hypertext and HTML; HTML Document Features; HTML command Tags; Creating Links; Headers; Text styles; Text Structuring; Text colors and Background; Formatting text; Page layouts, Test 3, Assignment4

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## LESSON PLAN 2022-23(EVEN SEMESTER)

**Subject: BCA-308 : ARTIFICIAL INTELLIGENCE**

**Faculty : SHEELA SHARMA**

<b>FEBRUARY 2023</b>	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction, Assignment 1,Test1
<b>MARCH 2023</b>	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction,Assignment 2,Test 2
<b>APRIL 2023</b>	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction,Assignment 3,Test 3
<b>MAY 2023</b>	Expert System: Introduction, Representing using domain specific knowledge, Expert system shells. Assignment 4,Test 4

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## Lesson Plan (22<sup>nd</sup> August 2022 to 30<sup>th</sup> Dec 2022)

Class: BCA 3<sup>rd</sup> Semester

Subject: Data Structure

Faculty: SHEELA

<b>August 2022</b>	Introduction: Elementary data organization, Data Structure definition, Data type vs. data structure, Categories of data structures, Data structure operations, Applications of data structures, Algorithms complexity and time-space tradeoff, Big-O notation. Strings: Introduction, Storing strings, String operations, Pattern matching algorithms.
<b>September 2022</b>	Arrays: Introduction, Linear arrays, Representation of linear array in memory, address calculations, Traversal, Insertions, Deletion in an array, Multidimensional arrays, Parallel arrays, Sparse arrays. Linked List: Introduction, Stack: Introduction, Array and linked representation of stacks, Operations on stacks,
<b>October 2022</b>	linked list, Representation of linked lists in memory, Traversal, Insertion, Deletion, Searching in a linked list, Header linked list, Circular linked list, Two-way linked list, Threaded lists, Garbage collection, Applications of linked lists.
<b>November 2022</b>	Applications of stacks: Polish notation, Recursion. Queues: Introduction, Array and linked representation of queues, Operations on queues, Deques, Priority Queues, Applications of queues.
<b>December 2022</b>	Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks. Graph: Introduction, Graph theory terminology, Sequential and linked representation of graphs.

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# Lesson Plan (22<sup>nd</sup> August 2022 to 30<sup>th</sup> Dec 2022)

Class: BCA 3<sup>rd</sup> Semester

Subject: PC S/W

Faculty: SHEELA

<b>August 2022</b>	MS-Windows: Operating system-Definition & functions, basics of Windows. Basic components of windows, icons, types of icons.
<b>September 2022</b>	Taskbar activating windows, using desktop, title bar, running applications Exploring computer, managing files and folders copying and moving files and folders Using windows accessories. Control panel – display properties, adding and removing software and hardware setting date and time, screensaver and appearance. Documentation Using MS-Word - Introduction to word processing interface, Doubt Clearance, Test & Assignment.
<b>October 2022</b>	Toolbars, Menus, Creating & Editing Document, and Formatting Document. Finding and replacing text, Format painter, Header and footer, Drop cap, Autotext, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark, Previewing and printing document. Advance Features of MS-Word-Mail Merge, Macros, Tables. File Management, Printing, Styles, linking and embedding object, Template. Doubt Clearance, Test & Assignment
<b>November 2022</b>	Electronic Spread Sheet using MS-Excel - Introduction to MS-Excel, Cell, cell address, Creating & Editing Worksheet, Formatting and Essential Operations, Moving and copying data in excel. Header and footer, Formulas and Functions, Charts, Cell referencing, Page setup, Macros. Advance features of MS-Excel-Pivot table & Pivot Chart, Linking and Consolidation. Database Management using Excel-Sorting, Filtering, Validation, What if analysis with Goal Seek, Conditional formatting. Doubt Clearance, Test & Assignment
<b>December 2022</b>	Presentation using MS-PowerPoint: Presentations, Creating, Manipulating & Enhancing Slides, Organizational Charts, Excel Charts, Word Art, Layering art Objects Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect. Doubt Clearance, Test & Assignment

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## Lesson Plan (OCTOBER 2022 to Dec 2022)

Class: MCA 1<sup>ST</sup> Semester

Subject: Object Oriented Programming using C++

Faculty: SHEELA SHARMA

<b>October 2022</b>	<p>Software crisis, Evolution of programming paradigm. Procedural, Structured, Function-oriented, Object based and object oriented programming Languages; Functional Abstraction v/s Data Abstraction ,object oriented programming paradigm. concept of Classes, Objects, Data Encapsulation, Inheritance ,polymorphism,Dynamic Binding and Message Passing.</p> <p>C vs C++, Why named C++, Tokens, keywords, identifiers, constants, data types : Basic, User Defined and Derived Types,Compatibility,declaring variables, dynamic Initialization of Variables, Reference Variables, Operator not in C but available in C++,operator Precedence, Special Assignment Expression,implicit conversion. Control Structures in C++, Structure of C++ program.</p>
<b>November 2022</b>	<p>Functions in C++: Role of Main Function, Function prototyping ,call by reference, Return by Reference, Default Arguments, const Arguments Function Overloading. C struct v/s C++ struct, Specifying Class. Implementing Data hiding and Data Encapsulation through private and public Access specifiers,Defining members Functions, Inline Functions, Nesting of Member Functions,Arrays within Class,Creating objects,Array of Objects.Memory allocation for objects.Static Data members and Class members.Objects as function Arguments, returning Objects, Friendly functions,Const member functions.Pointer to members,Local Classes.</p> <p>Constructors: Concept, Purpose and Usage,type of Constructors in C++,Default Parameterized and Copy Constructors, Overloading of Constructors, Constructors with Default Arguments ,Dynamic initialization of objects, dynamic Constructors, const Objects.</p> <p>Destructors: Concept, Purpose and Usage</p>
<b>December 2022</b>	<p>Inheritance: Concept of Reusability, Defining Derived class,Protected Access Specifier, Inheritance Types in C++: Single, Multilevel, Multiple, Hierarchical and Hybrid Inheritance,Ambiguity Resolution in Multiple Inheritance, virtual Base Class,Abstract Class,member classes.</p> <p>Operator Overloading: Concept, Operators that can't be overloaded,defining operator Overloading, Overloading Unary Operators, Overloading Binary operator using member function and Friend Functions, Rules for Operator overloading operators where friend Function cannot be used, Overloading Assignment operator Type conversion.</p> <p>Polymorphism: Concept, Compile Time Vs Run Time Polymorphism ,Pointer, Pointers to a Derived Class, Virtual and pure Virtual Functions,Late Binding.</p> <p>Unit Test</p>

## LESSON PLAN 2022-2023

**Subject: Compulsory computer education (BA 1 pass, BA1 ECo.Hons)**

**Faculty: Ms. Seema**

Feb 2023	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary
March 2023	page formatting, bookmark, previewing and printing document, File management, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
April 2023	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
May 2023	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects
June 2023	Revision and Test





## LESSON PLAN 2022-2023

Subject: Compulsory computer education (BA 1 pass, BA1 Eco. Hons)

Faculty: Ms. SEEMA

Aug 2022	what is computer, introduction of computer, applications of computer. components of computer, I/O devices,.
sep 2022	Files and folder, copying and moving files, revision of operating system Control panel- display properties, adding and removing software and hardware, setting date and time Screensaver and appearance, using window accessories Introduction of MS-word, Toolbars, Menus, creating and editing document Test
Oct. 2022	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary, Revision page formatting, bookmark, previewing and printing document, File management, test advance features of MS-word, Mail merge, Macro, Tables, printing, styles
Nov. 2022	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
Dec 2022	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects Revision and Test

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## LESSON PLAN 2022-2023

**Subject: Compulsory computer education (BA 1 pass, BA1 Eng.Hons)**

**Faculty: Ms. Hema Jandsalar**

Feb 2023	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto- text, Autocorrect, spelling and grammar tool, document dictionary
March 2023	page formatting, bookmark, previewing and printing document, File management, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
April 2023	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
May 2023	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects
June 2023	Revision and Test

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# LESSON PLAN 2022-2023

Subject: Compulsory computer education (BA 1 pass, BA1 Eco. Hons)

Faculty: Ms. Hema jandsalar

Aug 2022	what is computer, introduction of computer, applications of computer. components of computer, I/O devices,,
Sep 2022	Files and folder, copying and moving files, revision of operating system Control panel- display properties, adding and removing software and hardware, setting date and time Screensaver and appearance, using window accessories Introduction of MS-word, Toolbars, Menus, creating and editing document Test
Oct. 2022	Formatting document, finding and replacing text, format painter, Header and footer Drop cap, Auto-text, Autocorrect, spelling and grammar tool, document dictionary, Revision page formatting, bookmark, previewing and printing document, File management, test advance features of MS word, Mail merge, Macro, Tables, printing, styles
Nov. 2022	Operating system:- definition and functions, basics of window, components of window, types of icons Taskbar, activating window, using desktop, Revision Title bar, exploring computer, running application, Test
Dec 2022	Introduction of MS-PowerPoint, creating, manipulating and enhancing slides Organizational chart, Excel chart, word art, revision Layering art objects, Animation and sounds, inserted animated pictures, recorded sound effects Revision and Test

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## Lesson Plan (22<sup>nd</sup> August 2022 to 30<sup>th</sup> Dec 2022)

Class: BCA 3<sup>rd</sup> Semester  
Subject: Data Structure  
Faculty: MONIKA YADAV

August 2022	Introduction: Elementary data organization, Data Structure definition, Data type vs. data structure, Categories of data structures, Data structure operations, Applications of data structures, Algorithms complexity and time-space tradeoff, Big-O notation. Strings: Introduction, Storing strings, String operations, Pattern matching algorithms.
September 2022	Arrays: Introduction, Linear arrays, Representation of linear array in memory, address calculations, Traversal, Insertions, Deletion in an array, Multidimensional arrays, Parallel arrays, Sparse arrays. Linked List: Introduction, Stack: Introduction, Array and linked representation of stacks, Operations on stacks,
October 2022	linked list, Representation of linked lists in memory, Traversal, Insertion, Deletion, Searching in a linked list, Header linked list, Circular linked list, Two-way linked list, Threaded lists, Garbage collection, Applications of linked lists.
November 2022	Applications of stacks: Polish notation, Recursion. Queues: Introduction, Array and linked representation of queues, Operations on queues, Deques, Priority Queues, Applications of queues.
December 2022	Tree: Introduction, Definition, Representing Binary tree in memory, Traversing binary trees, Traversal algorithms using stacks. Graph: Introduction, Graph theory terminology, Sequential and linked representation of graphs.

Class: BCA 5<sup>th</sup> Semester  
Subject: MIS  
Faculty: MONIKA YADAV

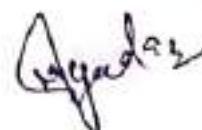
August 2022	Introduction to system and Basic System Concepts, Types of Systems, The Systems Approach, Information System: Definition & Characteristics, Types of information, Role of Information in Decision-Making
September 2022	Sub-Systems of an Information system: EDP and MIS management levels, EDP/MIS/DSS. An overview of Management Information System: Definition & Characteristics, Components of MIS,

*Monika Yadav*

<b>October 2022</b>	Frame Work for Understanding MIS: Information requirements & Levels of Management, Simon's Model of decision-Making, Structured Vs Un-structured decisions, Formal vs. Informal systems.
<b>November 2022</b>	Developing Information Systems: Analysis & Design of Information Systems: Implementation & Evaluation, Pitfalls in MIS Development.
<b>December 2022</b>	Functional MIS: A Study of Personnel, Financial and production MIS, Introduction to e- business systems, ecommerce – technologies, applications, Decision support systems – support systems for planning, control and decision-making

**Class:** MCA 2<sup>nd</sup> Semester  
**Subject:** OOAD using UML  
**Faculty:** MONIKA YADAV

<b>August 2022</b>	INTRODUCTION TO UML: Introduction to object-oriented concepts like inheritance, Polymorphism, Information hiding, Importance of modelling, Principles of modelling, Object oriented modelling, An overview of UML, Conceptual model of the UML, Architecture, Software development life cycle.
<b>September 2022</b>	BASIC STRUCTURAL MODELING: Classes: Terms and concepts, Common modelling techniques; Relationships Modelling simple dependencies, Single inheritance, and structural relationships; Common mechanisms and diagrams. ADVANCED STRUCTURAL MODELING: Advance classes, Advance relationships, Interfaces, Types and Roles, Packages, Instances.
<b>October 2022</b>	THE OBJECT-ORIENTED DESIGN PROCESS: The Object and Class concepts, identifying classes, identifying responsibilities, Relationships between Classes, Use Cases UML class diagrams, Sequence diagrams, State diagrams, Using Java doc for design documentation. GUIDELINES FOR CLASS DESIGN: An overview of the date classes in the java library, designing a day class, the importance of encapsulation, analysing the quality of an interface, programming by contract, unit testing, CRC cards,
<b>November 2022</b>	INTERFACE TYPES AND POLYMORPHISM: The icon interface type, polymorphism, drawing shapes, the comparable interface type, the comparator interface type, anonymous classes, frames and user interface components, user interface actions, timers, designing an interface type. PATTERNS AND GUI PROGRAMMING: Iterators, the pattern concept, the observer pattern, layout managers and the strategy pattern, components, containers, and the composite pattern, scroll bars and the decorator pattern,



	how to recognize patterns, putting patterns to work.
<b>December 2022</b>	<b>INHERITANCE AND ABSTRACT CLASSES:</b> The concept of inheritance, graphics programming with inheritance, abstract classes, the template method pattern, protected interfaces, the hierarchy of swing components, the hierarchy of standard geometric shapes, the hierarchy of exception classes, when not to use inheritance. <b>FRAMEWORKS:</b> Frameworks, applets as a simple framework, the collections framework, a graph editor framework, enhancing the graph editor framework. <b>MULTITHREADING :</b> Thread basics, Thread synchronization, Animations.

*Arjuna*

### Lesson Plan (Feb 2023 to May 2023)

**Class:** BCA 4<sup>th</sup> Semester  
**Subject:** Data Structure  
**Faculty:** MONIKA YADAV

<b>Feb 2023</b>	Fundamentals of Operating system: Introduction to Operating System, its need and operating System services, Early systems, Structures - Simple Batch, Multi programmed, timeshared, Personal Computer,
<b>March 2023</b>	Parallel, Distributed Systems, Real-Time Systems. Process Management: Process concept, Operation on processes, Cooperating Processes, Threads, and Inter-process Communication, CPU Scheduling: Basic concepts, Scheduling criteria, Scheduling algorithms : FCFS, SJF, Round Robin & Queue Algorithms.
<b>April 2023</b>	Deadlocks: Deadlock characterization, Methods for handling deadlocks, Banker's Algorithm, Memory Management: Logical versus Physical address space, Swapping, Contiguous allocation, Paging, Segmentation, Virtual Memory: Demand paging, Performance of demand paging, Page replacement, Page replacement algorithms, Thrashing, File management: File system Structure
<b>May 2023</b>	Allocation methods: Contiguous allocation, Linked allocation, Indexed allocation, Free space management: Bit vector, Linked list, Grouping, Counting, Device Management: Disk structure , Disk scheduling: FCFS, SSTF, SCAN, C-SCAN, LOOK, C-LOOK.

**Class:** BCA 3<sup>rd</sup> Semester  
**Subject:** E- Commerce  
**Faculty:** MONIKA YADAV

<b>Feb 2023</b>	Electronic Commerce: Overview of Electronic Commerce, Scope of Electronic Commerce, Traditional Commerce vs. Electronic Commerce, Impact of E-Commerce, Electronic Markets, Internet Commerce, e-commerce in perspective, Application of E Commerce in Direct Marketing and Selling, Obstacles in adopting E-Commerce Applications: Future of ECommerce.
<b>March 2023</b>	Value Chains in electronic Commerce, Supply chain, Porter's value chain Model, Inter Organizational value chains, Strategic Business unit chains, Industry value chains. Security Threats to E-commerce: Security Overview, Computer Security Classification, Copyright and Intellectual Property, security Policy and Integrated Security, Intellectual Property Threats, electronic Commerce Threats, Clients Threats, Communication Channel Threats, server Threats.
<b>April 2023</b>	Implementing security for E-Commerce: Protecting E-Commerce Assets, Protecting Intellectual Property, Protecting Client Computers, Protecting E-commerce Channels, Insuring Transaction Integrity, Protecting the Commerce Server. Electronic Payment System: Electronic Cash, Electronic

*Signature*

	Wallets, Smart Card, Credit and Change Card.
May 2023	Business to Business E-Commerce: Inter-organizational Transitions, Credit Transaction Trade Cycle, a variety of transactions. Electronic Data Interchange (EDI): Introduction to EDI, Benefits of EDI, EDI Technology, EDI standards, EDI Communication, EDI Implementation, EDI agreement, EDI security.

Class: BCA 6<sup>th</sup> Semester  
Subject: AI  
Faculty: MONIKA YADAV

Feb 2023	Overview of A.I: Introduction to AI, Importance of AI, AI and its related field, AI techniques, Criteria for success. Problems, problem space and search: Defining the problem as a state space search, Production system and its characteristics, Issues in the design of the search problem Heuristic search techniques : Generate and test, hill climbing, best first search technique, problem reduction, constraint satisfaction
March 2023	Knowledge Representation: Definition and importance of knowledge, Knowledge representation, Various approaches used in knowledge representation, Issues in knowledge representation. Using Predicate Logic : Representing Simple Facts in logic, Representing instances and is_a relationship, Computable function and predicate
April 2023	Natural language processing : Introduction syntactic processing, Semantic processing, Discourse and pragmatic processing, Learning: Introduction learning, Rote learning, Learning by taking advice, Learning in problem solving, Learning from example-induction, Explanation based learning.
May 2023	Expert System: Introduction, Representing using domain specific knowledge, Expert system shells.





DEPARTMENT OF GEOGRAPHY

Geography of India LESSON PLAN, 1<sup>st</sup> SEMESTER Session 2022-23

(Month of August)

India: Location, Relief, Structure and Drainage System, Climate, Soils, Natural Vegetation, and Natural Disaster in India

(Month of September)

Population: Distribution, Density, Growth and Composition, Migration, Human Settlement: Types, Level of Urbanization, Land Resources, Irrigation,

(Month of October)

Regional variations in cropping Pattern, Green Revolution, and Problems in Indian Agriculture. Energy and Mineral Resources: Coal, Petroleum, Hydroelectricity and Nuclear Energy.

(Month of November)

Iron-Ore, Manganese and Mica, Industries: Iron and Steel, Cotton Textile, Sugar and Petrochemical Industries, Industrial region in India, Mode of Transport and Communication, International Trade changing Pattern of Export

(Month of December) Revision

Practical Geography LESSON PLAN, 1<sup>st</sup> SEMESTER Session 2022-23

(Month of August)

**Introduction of Cartography:** Introduction, Nature of Cartography, Science and Art of Cartography, Scope of Cartography, work statement of Cartography, Essential Instrument for Cartography

(Month of September)


**Maps and Their Types:** Introduction Meaning and Definition, Essential of a Map, Classification of Maps, Use of Maps

(Month of October)

**Map Scale:** Methods of Expressing a Scale, Conversion of Statement of Scale into R.F and Vice-versa, Graphic Scale (Km and Mile), Comparative Scale (Time Scale, Pace Scale, Revolution Scale), Diagonal Scale.

(Month of November)

Measurement of Distances and Areas on Maps, Enlargement and Reduction of Maps and Revision

(Anoop) 

**DEPARTMENT OF GEOGRAPHY**  
**THEORY SECTION LESSON PLAN, 3<sup>rd</sup> SEMESTER Session 2022-23**

**Month of August**

**Weather and climate:** - Weather:-Meaning and Definition, Elements and Conditions of weather ,Climate-Definition, Difference between Weather and Climate, Elements of Weather and Climate- Temperature, Atmospheric Pressure, wind, Humidity and Precipitation, Factors Affecting Climate:- Latitude or Distance from Equator, Altitude or Height above sea Level, Continentality or Distance from Sea, Winds, Cloud Cover, Ocean Currents, Mountains, Slope of Land and Direction of Slope, Nature of Soil and Vegetation cover, **Composition and Structure of Atmosphere:-** Meaning and Definition, Origin of the Atmosphere, **Composition of the Atmosphere-** Gases, Water vapour, Dust Particles, Structure of the Atmosphere- Troposphere, Stratosphere, Mesosphere, Ionosphere, Exosphere, Chemical Composition of the Atmosphere- Homosphere, Heterosphere, Importance of Atmosphere (Month of September)

**Insolation and Temperature:** - **Solar Radiation**, Solar Insolation, Definition, Heat Budget of the Earth and the Atmosphere, Latitudinal Heat Balance, Factors Controlling Solar Insolation Distribution of Solar Radiation, Heating and Cooling of the Atmosphere, **Temperature:-** Factors Controlling Temperature, Horizontal Distribution of Temperature, Temperature Anomaly, Max and Min Temperature, Range of Temperature, Regional Distribution of Temperature, Vertical Distribution of Temperature Inversion of Temperature, Types of Inversion

**Month of October**

**Atmospheric Pressure and Winds:** -Meaning and Measurement of Air Pressure, Isobars, Effects and Importance of Air Pressure, Factors Affecting Atmospheric Pressure, Distribution of Atmospheric Pressure- Vertical and Horizontal, Seasonal Distribution of Pressure, **Winds:-** Meaning, Types of Winds- Planetary winds ,Periodic Winds- Monsoon, El Nino, Southern Oscillation, La Nina, Local Winds, **Atmospheric Humidity and Precipitation :-** Meaning , Evaporation- factors effect Evaporation, Distribution of Evaporation, **Humidity-** General Meaning, Kinds of Humidity, Factors Affecting Relative Humidity, Importance of Relative Humidity, Horizontal Distribution of Relative Humidity, **Condensation-**Meaning, Forms of Condensation, **Precipitation:-** Types of Precipitation, Classification of Rainfall , Factors Affecting Rainfall, Distribution of Rainfall.

**Month of November**

**Air Masses, Front and Cyclone:** - Introduction and definition of an Air Mass, Origin of Air Mass, Source of Air Masses, Characteristics of Air Masses, Classification of Air Masses, Modification of Air Masses, **Fronts:** - Meaning and Definitions, Frontogenesis, Conditions for Frontogenesis, Characteristic of Fronts, Classification of Fronts, Frontal Zones, **Cyclone:** - Introduction and Definition, Types of Cyclone: - Temperate Cyclone, Tropical Cyclone

**Climate Classification:** - Introduction, Bases of Climate Classification, **Koepfen Classification**, Climate: - Introduction and causes of Climate change, Green House Effect, Evidence of Climate Change, Consequences of Climate Change, Global Warming

**Month of December**

**Configuration of Ocean Floor:** Introduction, Relief of the Ocean Floor, Pacific Ocean Relief, Atlantic Ocean Relief, Indian Ocean Relief, Temperature and Salinity, Movement of Ocean Water: - Current and Tides, Pacific Ocean Current, Atlantic Ocean Current, Indian Ocean Current, Oceanic Resources

**Practical Geography Lesson Plan 3<sup>rd</sup> Semester Session 2022-23**

Measurement of Temperature, Rainfall, Pressure and Humidity - August

Bar Graph, Line Graph, Line and Bar Graph, Multiple Line Graph - September

Distribution of Temperature (Isotherms), Distribution of Rainfall (Isohyets), Hythergraph, Rainfall deviation Diagram- October

Climograph (Wet and Dry Places), Distribution of Pressure (Isobars), Weather Map Interpretation (January & July)- November

Chain and Tape Survey -- December

  
(Anoop)

**DEPARTMENT OF GEOGRAPHY**

**Practical Geography      LESSON PLAN, 2<sup>nd</sup> SEMESTER      Session 2022-23**

**(Month of January)**

Introduction of Topographical Sheet: India and Adjacent Countries, Degree Sheet, Half Degree Sheet, Quarter Degree Sheet, Conventional Signs

**(Month of February)**

Methods of Representing Relief, Representation of Topographical Features by Contours: Slopes- Concave, Convex, Undulating and Terraced

**(Month of March)**

Representation of Valleys- V-Shaped, U-Shaped, Gorge, Re-entrant, Ridges- Conical Hill, Volcanic Hill, Plateau, Escarpment, Complex Features- Waterfall, Sea Cliff, Overhanging Cliff, Fiord Coast.

**(Month of April)**

Drawing of Profiles: Cross Profiles: Serial, Superimposed, Projected and Composite Profiles., Longitudinal Profile and Revision

**Practical Geography      Lesson Plan      6<sup>th</sup> Semester      Session 2022-23**

**Month of January**

Demarcation of Principal Elements on Aerial Photographs, Scale of Photographs,

**Month of February**

Interpretation of Single Vertical Photographs

**Month of March**

Use of Stereoscope in Aerial Photographs

**Month of April**

Identification of Features on IRS-ID Imageries, Socio-Economic Survey

  
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**DEPARTMENT OF GEOGRAPHY**

**Practical Geography**      **LESSON PLAN, 1<sup>st</sup> SEMESTER**      **Session 2022-23**

**(Month of August)**

**Introduction of Cartography:** Introduction, Nature of Cartography, Science and Art of Cartography, Scope of Cartography, work statement of Cartography, Essential Instrument for Cartography

**(Month of September)**

**Maps and Their Types:** Introduction Meaning and Definition, Essential of a Map, Classification of Maps, Use of Maps

**(Month of October)**

**Map Scale:** Methods of Expressing a Scale, Conversion of Statement of Scale into R.F and Vice-versa, Graphical Scale (Km and Mile), Comparative Scale (Time Scale, Pace Scale, Revolution Scale), Diagonal Scale.

**(Month of November)**

Measurement of Distances and Areas on Maps, Enlargement and Reduction of Maps and Revision

**Practical Geography**

**Lesson Plan 5<sup>th</sup> Semester**

**Session 2022-23**

**Month of August**

Principles of Map Design and Layout, Symbolization: Point, Line and Area Symbol, Lettering and Toponymy,

**Month of September**

Mechanics of Map Construction, Distribution of Maps (i) Qualitative Distribution of Maps: - Chorochromatic Maps,

**Month of October**

Chorochromatic maps (ii) Quantitative Distribution maps: - Isopleth Maps, Choropleth Maps,

**Month of November**

Dot Maps, Diagrammatic Maps, Prismatic Compass Survey



(AJAY KUMAR)

## Teaching plan of session 2022-23 odd semesters

### Lesson Plan for Bca 1<sup>st</sup> semester, 2022-2023

#### Mathematics

Dates	Content
27.08.2022- 15.09.2022	SETS, Subsets, Equal Sets Universal Sets, Finite and Infinite Sets, Operation on Sets, Union, Intersection and Complements of Sets, Cartesian Product, Cardinality of Set. Determinants: Definition, Minors, Cofactors, Properties of Determinants, Applications of determinants in finding area of triangle, Solving a system of linear equations
16.09.2022- 08.10.2022	MATRICES: Definition, Types of Matrices, Addition, Subtraction, Scalar Multiplication and Multiplication of Matrices, Adjoint, Inverse, solving system of linear equation Cramer's
09.10.2022- 26.10.2022	RELATIONS AND FUNCTIONS: Properties of Relations, Equivalence Relation, Partial Order Relation Function: Domain and Range, Onto, Into and One to One Functions, Composite and Inverse Functions.
27.10.2022- 12.11.2022	LIMITS & CONTINUITY: Limit at a Point, Properties of Limit, Computation of Limits of Various Types of Functions, Continuity of a function at a Point, Continuity Over an Interval.
13.11.2022- 30.11.2022	DIFFERENTIATION: Derivative of a function, Derivatives of Sum, Differences, Product & Quotient of functions, Derivatives of polynomial, trigonometric, exponential, logarithmic, inverse trigonometric and implicit functions, Logarithmic Differentiation, Chain Rule and differentiation by substitution.
01.12.2022- till exam	INTEGRATION: Indefinite integral, Method of integration by Substitution, By parts, Partial Fractions, Integration of Algebraic and Transcendental Functions, Reduction Formula for simple and Trigonometric Functions, Definite Integral as Limit of Sum, Fundamental theorem of Integral Calculus, Evaluation of definite integral by substitution, using properties of definite integral.

*Vijay Verma*  
VIJAY VERMA

DEPARTMENT OF MATHEMATICS

Lesson Plan for B.Com.(Hons) 3<sup>rd</sup> semester, 2022-2023

Business Mathematics

Dates	Content
22.08.2022- 15.09.2022	Algebra of Matrices, Determinants, Adjoint and Inverse of Matrices, Elementary operations on Matrices.
16.09.2022- 08.10.2022	System of Linear Equations, Leontief Input Output Model, Compound Interest.
09.10.2022- 26.10.2022	Annuities, Time value of Money. Differentiation (algebraic values only). Integration by substitution.
27.10.2022- 12.11.2022	Integration by parts (algebraic values only). Linear Programming: Graphic Method (Two variables only).
13.11.2022- <del>20</del> .11.2022	Simplex Method (up to three variables). Set theory.
01.12.2022- till exam	Revision

*Vijayveer*  
VIJAYVEER

DEPARTMENT OF MATHEMATICS

## Lesson plan for M.Sc. 1<sup>st</sup> semester, 2022-2023

### Topology

Dates	Content
12.09.2022- 27.09.2022	Definition and examples of topological spaces. Closed sets. Closure. Dense subsets. Neighbourhoods. Interior, exterior and boundary points of a set. Accumulation points and derived sets. Bases and sub-bases. Subspaces and relative topology.
28.09.2022- 12.10.2022	Alternate methods of defining a topology in terms of Kuratowski Closure Operator and Neighbourhood Systems.
13.10.2022- 26.10.2022	Continuous functions and homeomorphism. Connected spaces. Connectedness on the real line. Components. Locally connected spaces.
27.10.2022- 12.11.2022	Compactness, compact sets, Basic properties of compactness. Compactness and finite intersection property. Sequentially and countably compact sets. Local compactness and one point compactification. Stone-Cech compactification.
13.11.2022- 28.11.2022	Compactness in metric spaces. Equivalence of compactness, countable compactness and sequential compactness in metric spaces. First and Second Countable spaces. Lindelof's theorem. Separable spaces. Second Countability and Separability.
01.12.2022- till exam	Separation axioms. $T_0$ , $T_1$ and $T_2$ spaces. Their characterization and basic properties. Baire Category Theorem for locally compact Hausdorff spaces. Regular and normal.

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DEPARTMENT OF MATHEMATICS

## Lesson plan for M.Sc. 3<sup>rd</sup> semester, 2022-2023

### Discrete Mathematics

Dates	Content
22.08.2022- 15.09.2022	Graph Theory - Definitions and basic concepts, special graphs, Subgraphs, isomorphism of graphs, Walks, Paths and Circuits, Eulerian Paths and Circuits Hamiltonian Circuits, matrix representation of graphs, Planar graphs, Coloring of Graph
16.09.2022- 08.10.2022	Directed Graphs, Tree , Isomorphism of Trees, Representation of Algebraic Expression by Binary Trees Spanning Tree of a Graph, Shortest Path Problem, Minimal spanning Trees Cut Sets , Tree Searching
09.10.2022- 26.10.2022	Minimal spanning Trees Cut Sets , Tree Searching. Formal Logic – Statement, Symbolic Representation and Tautologies. Quantifier, Predicates and Validity. Propositional Logic. Pigeonhole principle, principle of inclusion and exclusion, derangements
27.10.2022- 12.11.2022	Lattices- Lattices as partially ordered set . Their properties. Lattices as Algebraic systems. sublattices Direct products and Homeomorphisms. Some Special Lattices e.g., Complete. Complemented and Distributive Lattices. Join-irreducible elements. Atoms and Minterms.
13.11.2022- 30.11.2022	Boolean Algebras, Boolean Algebras as Lattices. Various Boolean Identities. The switching Algebra example , Sub algebras, Direct Products and Homomorphisms . Boolean Form and Their Equivalence. Minterm Boolean Forms, Sum of Products Canonical Forms. Minimization of Boolean Functions
01.12.2022- till exam	Applications of Boolean Algebra to Switching Theory. The Karnaugh Map method

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## Lesson plan for M.Sc. 2<sup>nd</sup> semester, 2022-2023

### Mathematical Statistics

Dates	Content
06.02.2023- 21.02.2023	Probability: Classical, Statistical and axiomatic approach, Addition theorem, Boole's inequality, Conditional probability and multiplication theorem, Independent events, Bayes' theorem and its applications.
22.02.2023- 13.03.2023	Random variable, discrete and continuous random variables, probability mass and density functions, distribution function, Joint, marginal and conditional distributions, Mathematical Expectation and its properties, Variance, Covariance, Moment generating function.
14.03.2023- 31.03.2023	Discrete distributions: Binomial, Poisson and geometric distributions with their properties, Continuous distributions: Uniform normal, Gamma and Exponential distributions and their properties.
01.04.2023- 15.04.2023	Chebychev's inequality, Central Limit Theorem, Weak Law of Large Numbers, Point and interval estimation, Unbiasedness, Sufficiency Consistency and Efficiency.
16.04.2023- 30.04.2023	Testing of Hypothesis, Null and alternative hypotheses Simple and composite hypotheses types of errors, Level of significance, Power of the Test,
01.05.2023- till exam	Critical Region, One tailed and two tailed tests t-test, Chi-square test, F-test

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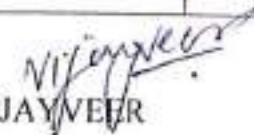
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## Teaching plan of session 2022-23 even semesters

### Lesson plan for M.Sc. 4<sup>th</sup> semester, 2022-2023

#### MECHANICS OF SOLIDS-II

Dates	Content
06.02.2023- 21.02.2023	<b>Two-dimensional Problems:</b> Plane strain and Plane stress, Generalized plane stress, Airy stress functions for plane strain problems, General solutions of a Biharmonic equation.
22.02.2023- 13.03.2023	Stresses and displacements in terms of complex potentials, Thick walled tube under external and internal pressures, Rotating shaft. <b>Torsion of Beams:</b> Torsion of cylindrical bars, Torsional rigidity, Torsion and stress function, Lines of shearing stress Simple problems related to circle, ellipse and equilateral triangle cross-section, Circular groove in a circular shaft.
14.03.2023- 31.03.2023	<b>Extension of Beams:</b> Extension of beams by longitudinal forces, Beam stretched by its own weight. <b>Bending of Beams:</b> Bending of Beams by terminal Couples, Bending of a beam by transverseload at the centroid of the end section along a principal axis.
01.04.2023- 15.04.2023	<b>Variational Methods:</b> Reciprocal theorem of Betti and Rayleigh, Deflection of elastic string The Ritz method-one & two dimensional, The Galerkin method, The method of Kantorovich. <b>Waves:</b> Simple harmonic progressive waves, scalar wave equation, progressive type solutions.
16.04.2023- 30.04.2023	Plane waves and spherical waves stationary type solutions in Cartesian and Cylindrical coordinates. <b>Elastic Waves:</b> Propagation of waves in an unbounded isotropic elastic solid, P,SV and
01.05.2023- till exam	<b>SH waves:</b> Surface Wave frequency equation for Rayleigh and Love waves.

  
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## Lesson plan for B.Sc. 4<sup>th</sup> semester, 2022-2023

### Programming in C and Numerical Methods

Dates	Content
06.02.2023- 21.02.2023	Solution of Algebraic and Transcendental equations: Bisection method, Regula-Falsi method.
22.02.2023- 13.03.2023	Secant method, Newton-Raphson's method. Newton's iterative method for finding pth root of a number.
14.03.2023- 31.03.2023	Order of convergence of above methods. Simultaneous linear algebraic equations: Gauss-elimination method.
01.04.2023- 15.04.2023	Gauss-Jordan method, Triangularization method (LU decomposition method), Crout's method, Cholesk.
16.04.2023- 30.04.2023	Decomposition method. Iterative method, Jacobi's method.
01.05.2023- till exam	Gauss-Seidal's method, Relaxation method.


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DEPARTMENT OF MATHEMATICS

## Lesson plan for B.Sc. 6<sup>th</sup> semester, 2022-2023

### Linear algebra

Dates	Content
06.02.2023- 21.02.2023	Vector spaces, subspaces, Sum and Direct sum of subspaces, Linear span, Linearly Independent and dependent subsets of a vector space, Finitely generated vector space.
22.02.2023- 13.03.2023	Existence theorem for basis of a finitely generated vector space, Finite dimensional vector spaces, Invariance of the number of elements of bases sets, Dimensions, Quotient space and its dimension. Bidual spaces, annihilator of subspaces of finite dimensional vector spaces, Null Space, Range space of a linear transformation, Rank and Nullity Theorem.
14.03.2023- 31.03.2023	Homomorphism and isomorphism of vector spaces, Linear transformations and linear forms on vector spaces, Vector space of all the linear transformations Dual Spaces, Bidual spaces, annihilator of subspaces of finite dimensional vector spaces, Null Space, Range space of a linear transformation, Rank and Nullity Theorem.
01.04.2023- 15.04.2023	Null Space, Range space of a linear transformation, Rank and Nullity Theorem, Algebra of Linear Transformation, Minimal Polynomial of a linear transformation, Singular and non-singular linear transformations, Matrix of a linear Transformation, Change of basis, Eigen values and Eigen vectors of linear transformations.
16.04.2023- 30.04.2023	Inner product spaces, Cauchy-Schwarz inequality, Orthogonal vectors, Orthogonal complements, Orthogonal sets and Basis, Bessel's inequality for finite dimensional vector spaces,
01.05.2023- till exam	GramSchmidt, Orthogonalization process, Adjoint of a linear transformation and its properties, Unitary linear transformations

  
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DEPARTMENT OF MATHEMATICS

## Lesson plan for BCA 1<sup>st</sup> semester, 2022-2023

### Mathematics

Dates	Content
27.08.2022- 15.09.2022	SETS: Sets, Subsets, Equal Sets Universal Sets, Finite and Infinite Sets, Operation on Sets, Union, Intersection and Complements of Sets, Cartesian Product, Cardinality of Set, Simple Applications. DETERMINANTS: Definition, Minors, Cofactors, Properties of Determinants, Applications of determinants in finding area of triangle,
16.09.2022- 05.10.2022	Solving a system of linear equations, MATRICES: Definition, Types of Matrices, Addition, Subtraction, Scalar Multiplication and Multiplication of Matrices, Adjoint, Inverse, solving system of linear equation Cramer's Rule. RELATIONS AND FUNCTIONS: Properties of Relations, Equivalence Relation, Partial Order Relation Function: Domain and Range, Onto, Into and One to One Functions, Composite and Inverse Functions.
06.10.2022- 25.10.2022	LIMITS & CONTINUITY: Limit at a Point, Properties of Limit, Computation of Limits of Various Types of Functions, and Continuity of a function at a Point, Continuity Over an Interval, Sum, product and quotient of continuous functions, Intermediate Value Theorem, Type of Discontinuities.
26.10.2022- 15.11.2022	DIFFERENTIATION: Derivative of a function, Derivatives of Sum, Differences, Product & Quotient of functions, Derivatives of polynomial, trigonometric, exponential, logarithmic, inverse trigonometric and implicit functions, Logarithmic Differentiation,
16.11.2022- 05.12.2022	Chain Rule and differentiation by substitution. INTEGRATION: Indefinite Integrals, Methods of Integration by Substitution, By Parts, Partial Fractions, Integration of Algebraic and Transcendental Functions, Reduction Formulae for simple and Trigonometric Functions,
06.12.2022- till exam	Definite Integral as Limit of Sum, Fundamental Theorem of Integral Calculus, Evaluation of definite integrals by substitution, using properties of definite integral, and Revision

Harish Kumar  
(HARISH KUMAR)

Lesson plan for B.Sc 1<sup>st</sup> semester, 2022-2023

Solid Geometry

Dates	Content
27.08.2022-15.09.2022	General equation of second degree. Tracing of conics. Tangent at any point to the conic, chord of contact, pole of line to the conic, director circle of conic.
16.09.2022-05.10.2022	System of conics, Confocal conics. Polar equation of a conic, tangent and normal to the conic. General equation of second degree.
06.10.2022-25.10.2022	Tracing of conics. Tangent at any point to the conic, chord of contact, pole of line to the conic, director circle of conic system of conics. Confocal conics.
26.10.2022-15.11.2022	Polar equation of a conic, tangent and normal to the conic. Central Conicoid: Equation of tangent plane. Director sphere. Normal to the conicoid.
16.11.2022-05.12.2022	Polar plane of a point. Enveloping cone of a conicoid. Enveloping cylinder of a conicoid. Paraboloid: Circular section, Plane sections of conicoid.
06.12.2022-till exam	Generating lines. Confocal conicoid. Reduction of second degree equations. And Revision

Harish Kumar  
(HARISH KUMAR)

Lesson plan for M.Sc. 3<sup>rd</sup> semester, 2022-2023

Analytical Number Theory

Dates	Content
22.08.2022-15.09.2022	Distribution of primes. Fermat's and Mersenne numbers. Farey series and some results concerning Farey series. Approximation of irrational numbers by rationals.
16.09.2022-05.10.2022	Hurwitz's theorem. Irrationality of $e$ and $\pi$ . Diophantine equations $ax + by = c$ , $x^2 + y^2 = z^2$ and $x^4 + y^4 = z^4$ . The representation of number by two or four squares.
06.10.2022-25.10.2022	Waring's problem, Four square theorem, the numbers $g(k)$ & $G(k)$ . Lower bounds for $g(k)$ & $G(k)$ . Simultaneous linear and non-linear congruencies Chinese Remainder Theorem and its extension.
26.10.2022-15.11.2022	Quadratic residues and non-residues. Legendre's Symbol, Gauss Lemma and its applications. Quadratic Law of Reciprocity, Jacobi's Symbol. The arithmetic in $\mathbb{Z}_n$ . The group $U_0$ .
16.11.2022-05.12.2022	Congruencies with prime power modulus, primitive roots and their existence. Arithmetic functions $\phi(n)$ , $t(n)$ , Sigma function and $\sigma^k(n)$ , $u(n)$ , $N(n)$ , $I(n)$ . Definition and examples and simple properties.
06.12.2022-till exam	Perfect numbers, Mobius inversion formula. The Mobius function $\mu(n)$ The order and average order of the function $\phi(n)$ , $t(n)$ and $\sigma(n)$ . and Revision

Harish Kumar  
(HARISH KUMAR)

Lesson plan for M.Sc. 4<sup>th</sup> semester, 2022-2023

Integral equations and COV

Dates	Content
06.02.2023- 21.02.2023	Linear Integral Equations, Some Basic Identities, Initial value problems reduced to Volterra integral equations, Method of successive substitution and successive approximation to solve Volterra Integral equations of second kind, iterated Kernel and Neumann series for Volterra Equations, Resolvent Kernel as a series,
22.02.2023- 13.03.2023	Laplace transforms method for a difference kernel, Solution of a Volterra integral Equation of the first kind. Boundary value problems reduced to Fredholm Integral equations, Method of successive substitution and successive approximation to solve Fredholm Integral equations of second kind, iterated Kernels and Neumann series for Fredholm Equations. Resolvent Kernel as a sum of series,
14.03.2023- 31.03.2023	Fredholm resolvent Kernel as a ratio of two series, Fredholm equation with separable kernels, Approximation of a kernel by a separable kernel, Fredholm Alternative, Non- Homogenous Fredholm integral Equations with degenerate kernels. Green Function, Use of method of variation of parameters to construct the Green function for a non- homogenous linear second order linear boundary value problems.
01.04.2023- 15.04.2023	Basic four properties of the Green Function, Alternate Procedure for construction of the Green function by using its basic four properties, Reduction of a boundary value problem to a Fredholm Integral equation with kernel as Green Function, Hilbert- Schmidt theory of symmetric kernels.
16.04.2023- 30.04.2023	Motivating problems of Calculus of Variations, Shortest Distance, Minimum surface of Resolution, Brachistochrone problem, Isoperimetric problem, Geodesic. Fundamental Lemma of Calculus of Variations. Euler equation for one dependent function and its generalization to 'n' dependent functions and to higher order derivatives.
01.05.2023- till exam	Conditional Extremum under geometric Constraints and under integral Constraints and Revision

Harish Kumar  
(HARISH KUMAR)



Lesson plan for B.Sc. 1<sup>st</sup> semester, 2022-2023

Vector Calculus

Dates	Content
06.02.2023- 21.02.2023	Scalar and vector product of three vectors, product of four vectors. Reciprocal vectors. Vector differentiation. Scalar Valued point functions, vector valued point functions, derivative along a curve, directional derivatives.
22.02.2023- 13.03.2023	Gradient of a scalar point function, geometrical interpretation of $\text{grad}\phi$ , character of gradient as a point function. Divergence and curl of vector point function, characters of $\text{Div } f$ and $\text{Curl } f$ as point function, examples.
14.03.2023- 31.03.2023	Gradient, divergence and curl of sums and product and their related vector identities. Laplacian operator. Orthogonal curvilinear coordinates. Conditions for orthogonality fundamental triad of mutually orthogonal unit vectors.
01.04.2023- 15.04.2023	Gradient, Divergence, Curl and Laplacian operators in terms of orthogonal curvilinear coordinates, Cylindrical co-ordinates and Spherical co-ordinates.
16.04.2023- 30.04.2023	Vector integration: Line integral, Surface integral, Volume integral. Theorems of Gauss, Green & Stokes and problems based on these theorems.
01.05.2023- till exam	Revision

Harish Kumar  
(HARISH KUMAR)

Lesson plan for M. Sc. 1<sup>st</sup> Semester, 2022-2023

Abstract Algebra-1

Dates	Content
12.09.2022- 27.09.2022	Normal subgroup, quotient group, normalizer and centralizer of a non-empty subset of a group $G$ , commutator subgroups of a group. first, second and third isomorphism theorems, correspondence theorem, $\text{Aut}(G)$ , $\text{Inn}(G)$ , automorphism group of a cyclic group, $G$ -sets, orbit of an element in group $G$
28.09.2022- 12.10.2022	Cayley's theorem. conjugate elements and conjugacy classes, class equation of a finite group $G$ and its applications, Burnside theorem. normal series, composition series, Jordan Holder theorem, Zassenhaus lemma, Scheier's refinement theorem, solvable group, nilpotent group
13.10.2022- 26.10.2022	Cyclic decomposition, even and odd permutation, Alternation group $A_n$ , simplicity of the Alternating group $A_n$ ( $n > 5$ ). Cauchy's theorem, Sylow's first, second and third theorems and its applications to group of smaller orders. groups of order $p^2$ and $pq$ ( $q > p$ ).
27.10.2022- 12.11.2022	Modules, submodules, direct sums, finitely generated modules, cyclic module. $R$ -homomorphism, quotient module, completely reducible modules, Schur's lemma, free modules, representation of linear mapping, rank of linear mapping.
13.11.2022- 28.11.2022	Similar linear transformation, invariant subspaces of vector spaces, reduction of a linear transformation to triangular form, nilpotent transformation, index of nilpotency of a nilpotent transformation. Cyclic subspace with respect to a nilpotent transformations, uniqueness of the invariants of a nilpotent transformation.
01.12.2022- till exam	Primary decomposition theorem. Jordan blocks, Jordan canonical forms, cyclic module relative to a linear transformation, rational canonical form of a linear transformation and its elementary divisors, uniqueness of elementary divisors.

  
(ROHIT SHARMA)

Lesson plan for M. Sc. 3<sup>rd</sup> Semester, 2022-2023

Partial Differential Equations


Dates	Content
22.08.20 22- 15.09.20 .22	First Order P.D.E.: Curves and surfaces, Genesis of first order P.D.E., Classification of integrals, Compatible systems, Charpit's method, Integral Surfaces through a Given curve, Quasi-Linear Equations, Method of separation of variables.
16.09.20 22- 05.10.20 22	Second Order P.D.E.: Genesis of Second Order P.D.E., Classification of second order P.D.E., One Dimensional Wave Equation: Vibrations of an Infinite Strings, Vibrations of a Semi-Infinite String, Vibrations of a string of finite length.
06.10.20 22- 25.10.20 22	Laplace's Equations: Boundary Value problems, Maximum and Minimum Principles, The Cauchy Problem, The Dirichlet Problem for upper half plane, The Neumann Problem for upper half plane
26.10.20 22- 15.11.20 22	The Dirichlet problem for a circle, The Dirichlet Exterior problem for a circle, The Neumann problem for a circle, the Dirichlet problem for a rectangle
16.11.20 22- 05.12.20 22	Heat conduction- Infinite rod case, Heat conduction- finite rod case, Duhamel's principle, Heat Conduction Equation, Classification in the case of n-variables, Families of Equipotential Surfaces
06.12.20 22-till exam	Kelvin's Inversion theorem and revision

  
Ravi Sharma

Lesson plan for B. Sc. 3<sup>rd</sup> Semester, 2022-2023

Partial Differential Equations


Dates	Content
22.08.2022- 15.09.2022	Partial differential equations: Formation, order and degree, Linear and Non-Linear Partial differential equations of the first order: Complete solution, singular solution, General solution,
16.09.2022- 05.10.2022	Solution of Lagrange's linear equations, Charpit's general method of solution. Compatible systems of first order equations, Jacobi's method
06.10.2022- 25.10.2022	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.
26.10.2022- 15.11.2022	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.
16.11.2022- 05.12.2022	Cauchy's problem for second order partial differential equations, Characteristic equations and characteristic curves of second order partial differential equation,
06.02.2022- till exam	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 and revision

  
(ROHIT SHARMA)

Lesson plan for B. Sc. 5<sup>th</sup> Semester, 2022-2023

Real Analysis

Dates	Content
22.08.2022- 15.09.2022	Riemann integral, Integrability of continuous and monotonic functions, The Fundamental theorem of integral calculus. Mean value theorems of integral calculus.
16.09.2022- 05.10.2022	Improper integrals and their convergence, Comparison tests, Abel's and Dirichlet's tests, Frullani's integral, Integral as a function of a parameter. Continuity, Differentiability and integrability of an integral of a function of a parameter.
06.10.2022- 25.10.2022	Definition and examples of metric spaces, neighborhoods, limit points, interior points, open and closed sets, closure and interior, boundary points, subspace of a metric space, equivalent metrics
26.10.2022- 15.11.2022	Cauchy sequences, completeness, Cantor's intersection theorem, Baire's category theorem, contraction Principle
16.11.2022- 05.12.2022	Continuous functions, uniform continuity, compactness for metric spaces, sequential compactness, Bolzano-Weierstrass property, total boundedness, finite intersection property, continuity in relation with compactness
06.12.2022- till exam	Connectedness, components, continuity in relation with connectedness and revision

  
(ROHIT SHARMA)

Lesson plan for B. Com. 2<sup>nd</sup> semester, 2022-2023

Business Mathematics

Dates	Content
06.02.2023- 21.02.2023	Definition of a Matrix; Types of Matrices, Algebra of Matrices; Calculation of values of Determinants up to third order; adjoint of a Matrix, elementary row and column operations
22.02.2023- 13.03.2023	Finding inverse matrix through adjoint and elementary row or column operations; Solution of a system of Linear equations having unique Solution and involving not more than three variables
14.03.2023- 31.03.2023	Differentiation (only algebraic problem) ; Application of differentiation
01.04.2023- 15.04.2023	Compound Interest and Annuities: Certain different types of interest rate; Concept of present value and amount of a sum; Types of annuities
16.04.2023- 30.04.2023	Present value and amount of an annuity, including the case of continuous compounding
01.05.2023- till exam	Ratio, Proportion and Percentage; Profit and Loss and revision

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(ROHIT SHARMA)

Lesson plan for M. Sc. 2<sup>nd</sup> semester, 2022-2023

Abstract Algebra-2

Dates	Content
06.02.2023- 21.02.2023	Irreducible polynomials, Eisenstein criterion, Gauss lemma, Field extension, algebraic and transcendental extension, degree of an extension, algebraic closure and algebraically closed field, Splitting field, degree of extension of splitting field
22.02.2023- 13.03.2023	Normal extension, multiple roots, prime field, characterization of prime field, finite field, separable extension.
14.03.2023- 31.03.2023	Automorphism group, fixed field, Dedekind lemma, Galois groups of polynomials, Galois extension
01.04.2023- 15.04.2023	Fundamental theorem of Galois theory, fundamental theorem of algebra, roots of unity, Cyclotomic polynomials, Klein's four group, cyclic extension, Frobenius automorphism of a finite field.
16.04.2023- 30.04.2023	Solvability of polynomials by radicals over $\mathbb{Q}$ . Symmetric functions and elementary symmetric functions
01.05.2023- till exam	Construction with ruler and compass only and revision

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CRANIT SARKAR

Lesson plan for M.Sc. 4<sup>th</sup> semester, 2022-2023

Functional Analysis

Dates	Content
06.02.2023- 21.02.2023	Normed spaces, Banach spaces, Finite dimensional normed space and subspaces, Linear operators, Bounded and Continuous linear operators, Linear Functionals Normed spaces of operators, Dual spaces.
22.02.2023- 13.03.2023	Inner product space and its properties, Hilbert spaces, orthogonal complements and direct sums, Legendre, Hermite and Laguerre polynomials
14.03.2023- 31.03.2023	Representation of Functionals on Hilbert spaces Hilbert- Adjoint Operator, Self- Adjoint Unitary and orthogonal Operators.
01.04.2023- 15.04.2023	Hahn Banach Theorem, Uniform bounded principle, Closed graph Theorem, Open mapping Theorem, Adjoint Operators, Reflexivity.
16.04.2023- 30.04.2023	Spectral theory in finite dimensional normed spaces, Spectral properties of Bounded Linear Operators, Further Properties of Resolvent and Spectrum
01.05.2023- till exam	Spectral properties of Bounded Self-Adjoint Linear Operators, Positive Operators and revision

Prasant  
(RANIT SHARMA)



Lesson plan for B.Sc. 2<sup>nd</sup> Semester, 2022-2023

Ordinary Differential Equation

Dates	Content
06.02.2023- 21.02.2023	Geometrical meaning of a differential equation. Exact differential equations, integrating factors. First order higher degree equations solvable for x,y,p Lagrange's equations, Clairaut's equations. Equation reducible to Clairaut's form. Singular solutions.
22.02.2023- 13.03.2023	Orthogonal trajectories: in Cartesian coordinates and polar coordinates. Self orthogonal family of curves.. Linear differential equations with constant coefficients. Homogeneous linear ordinary differential equations.
14.03.2023- 31.03.2023	Equations reducible to homogeneous linear ordinary differential equations Linear differential equations of second order: Reduction to normal form. Transformation of the equation by changing the dependent variable/ the independent variable.
01.04.2023- 15.04.2023	Solution by operators of non-homogeneous linear differential equations. Reduction of order of a differential equation. Method of variations of parameters. Method of undetermined coefficients.
16.04.2023- 30.04.2023	Ordinary simultaneous differential equations. Solution of simultaneous differential equations involving operators $x (d/dx)$ or $t (d/dt)$ etc. Simultaneous equation of the form $dx/P = dy/Q = dz/R$ . Total differential equations. Condition for $Pdx + Qdy + Rdz = 0$ to be exact.
01.05.2023- till exam	General method of solving $Pdx + Qdy + Rdz = 0$ by taking one variable constant. Method of auxiliary equations.

19/4  
 (ROHIT SHARMA)

Lesson plan for M.Sc. 1st semester, 2022-2023

MATH-112 ORDINARY DIFFERENTIAL EQUATIONS

Dates	Content
27.08.2022- 15.09.2022	Programmer's model of a computer, Algorithms, Flow charts, Data types, Operators and expressions, Input / outputs functions.
16.09.2022- 08.10.2022	Decisions control structure: Decision statements, Logical and conditional statements, Implementation of Loops,
09.10.2022- 26.10.2022	Switch Statement & Case control structures. Functions, Preprocessors and Arrays. Strings: Character Data Type,
27.10.2022- 12.11.2022	Standard String handling Functions, Arithmetic Operations on Characters.
13.11.2022- 28.11.2022	Structures: Definition, using Structures, use of Structures in Arrays and Arrays in Structures.
01.12.2022- till exam	Pointers: Pointers Data type, Pointers and Arrays, Pointers and Functions.

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Lesson plan for M.Sc. 1<sup>st</sup> semester, 2022-23

MEASURE AND INTEGRATION THEORY

Dates	Content
27.08.2022- 15.09.2022	Countable set, uncountable sets, cardinality of sets, Cantor sets and Cantor function, Set function, Intuitive idea of measure, Elementary properties of measure, Measurable sets and their fundamental properties.
16.09.2022- 08.10.2022	Lebesgue measure of a set of real numbers, Algebra of measurable sets, Borel set, Equivalent formulation of measurable sets in terms of open, Closed, and sets, Non measurable sets, Measurable functions and their equivalent formulations, properties of measurable functions.
09.10.2022- 26.10.2022	Approximation of measurable function by a sequence of simple functions, Measurable functions as nearby continuous functions, Egoroff's theorem, Lusin's theorem, convergence in measure and $F$ - Riesz theorem, Almost uniform convergence.
27.10.2022- 12.11.2022	Shortcomings of Riemann Integral, Lebesgue integral of a bounded function over a set of finite measure and its properties, Lebesgue integral as a generalization of Riemann integral, Bounded convergence theorem.
13.11.2022- 28.11.2022	Lebesgue theorem regarding points of discontinuous of Riemann integrable functions, Integral of non- negative functions, Fatou's Lemma, Monotone convergence theorem, General Lebesgue Integral, Lebesgue convergence theorem, Lebesgue -spaces.
01.12.2022- till exam	Holders inequality, Minkowski's Inequality, Reverse Inequalities

*Y. S. Singh*

Lesson plan for B.Sc. 5TH semester, 2022-2023

PROGRAMMING IN C AND NUMERICAL METHODS

Dates	Content
18.04.2022- 30.04.2022	Programmer's model of a computer, Algorithms, Flow charts, Data types, Operators and expressions, Input / outputs functions.
01.05.2022- 15.05.2022	Decisions control structure: Decision statements, Logical and conditional statements, Implementation of Loops,
16.05.2022- 31.05.2022	Switch Statement & Case control structures. Functions, Preprocessors and Arrays. Strings: Character Data Type,
01.06.2022- 15.06.2022	Standard String handling Functions, Arithmetic Operations on Characters. Structures: Definition, using Structures, use of Structures in Arrays and Arrays in Structures.
16.06.2022- till exam	Pointers: Pointers Data type, Pointers and Arrays, Pointers and Functions.

Lesson plan for M.Sc. 4th semester, 2022-23

MATH-246 Computing Lab-IV

Dates	Content
06.02.2023- 21.02.2023	Introduction to LaTeX, Purpose of LaTeX, Typesetting system
22.02.2023- 13.03.2023	Typing your first article, typing text, structuring your document, different package.
14.03.2023- 31.03.2023	typesetting math in LaTeX , adding a picture, generating a table of contents, Adding a bibliography ,
01.04.2023- 15.04.2023	adding footnotes, creating tables with LaTeX, plots- plotting and visualizing your data.
16.04.2023- 30.04.2023	Introduction to Gnuplot, graph plotting and data fitting, creating simple plots.
01.05.2023- till exam	plotting data from a file, fitting a function to data.

Lesson plan for M.Sc. 2nd semester, 2022-23

MATH-126 Computing Lab-II

Dates	Content
06.02.2023- 21.02.2023	Program in C to find magnitude of a vector, Compute GCD and LCM of two positive integer values using recursion.
22.02.2023- 13.03.2023	Calculate the eigen values and eigen vectors of a symmetric matrix of order three, Program to find largest /smallest of three numbers.
14.03.2023- 31.03.2023	Demonstrate the use of Euler and Runge kutta methods for solving IVP of ODEs
01.04.2023- 15.04.2023	C program to evaluate the given polynomial equation by the method studies. Program to compute $\sin x$ and $\cos x$ using series and check expression.
16.04.2023- 30.04.2023	To find the inverse of a given non singular square matrix, To find complex roots of a Quadratic equation.
01.05.2023- till exam	Program to sort ten numbers in increasing and decreasing order. Other programs may be included in the course as relevant to mathematics .

R. V. S.

Lesson plan for M.Sc. 2<sup>nd</sup> semester, 2022-2023

MATH-122 COMPLEX ANALYSIS

Dates	Content
06.02.2023- 21.02.2023	Differentiability of sum function of a power series. Branches of logarithm. Path, Region, Contour, Simply and multiply connected regions. Complex integration. Cauchy theorem. Cauchy's integral formula. Poisson's integral formula.
22.02.2023- 13.03.2023	Differentiability of sum function of a power series. Branches of logarithm. Path, Region, Contour, Simply and multiply connected regions. Complex integration. Cauchy theorem. Cauchy's integral formula. Poisson's integral formula.
14.03.2023- 31.03.2023	Complex integral as a function of its upper limit, Morera's theorem. Cauchy's inequality. Liouville's theorem. The Fundamental theorem of algebra. Zeros of an analytic function, Laurent's series.
01.04.2023- 15.04.2023	Singularities. Cassorati- Weierstrass theorem, Limit point of zeros and poles. Maximum and Minimum modulus principles. Schwarz lemma, Meromorphic functions, Residues.
16.04.2023- 30.04.2023	Cauchy's residue theorem. Evaluation of improper integrals. The argument principle. Rouché's theorem. Inverse function theorem. Bilinear transformations their properties and classifications.
01.05.2023- till exam	Definitions and examples of Conformal mappings. Space of analytic functions and their completeness Riemann mapping theorem.

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Lesson plan for M.Sc. 2nd semester, 2022-23

MATH-114 MEASURE AND INTEGRATION THEORY

Dates	Content
06.02.2023- 21.02.2023	Countable set, uncountable sets, cardinality of sets, Cantor sets and Cantor function, Set function, Intuitive idea of measure, Elementary properties of measure, Measurable sets and their fundamental properties.
22.02.2023- 13.03.2023	Lebesgue measure of a set of real numbers, Algebra of measurable sets, Borel set, Equivalent formulation of measurable sets in terms of open, Closed, and sets, Non measurable sets, Measurable functions and their equivalent formulations, properties of measurable functions.
14.03.2023- 31.03.2023	Approximation of measurable function by a sequence of simple functions, Measurable functions as nearby continuous functions, Egoroff's theorem, Lusin's theorem, convergence in measure and $F$ - Riesz theorem, Almost uniform convergence.
01.04.2023- 15.04.2023	Shortcomings of Riemann Integral, Lebesgue integral of a bounded function over a set of finite measure and its properties, Lebesgue integral as a generalization of Riemann integral, Bounded convergence theorem.
16.04.2023- 30.04.2023	Lebesgue theorem regarding points of discontinuous of Riemann integrable functions, Integral of non- negative functions, Fatou's Lemma, Monotone convergence theorem, General Lebesgue Integral, Lebesgue convergence theorem, Lebesgue -spaces.
01.05.2023- till exam	Holders inequality, Minkowski's Inequality, Reverse Inequalities

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Lesson Plan for B. com 1<sup>st</sup> semester, 2022-2023

Business mathematics

Dates	Content
27.08.2022- 15.09.2022	Theory of sets, meaning elements, types, presentation and equality of sets
16.09.2022- 08.10.2022	Union, Intersection, Complement and Difference of sets, Venn Diagram Cartesian product of two sets
09.10.2022- 26.10.2022	Application of set theory, Law of Indices, Properties of logarithms, system of logarithms
27.10.2022- 12.11.2022	Rules to find the characteristics and mantissa, Tables of logarithms, Introduction to Data Interpretation.S
13.11.2022- 30.11.2022	Fundamental principle of counting, Difference between Permutations and combination, Restricted permutation, circular permutation, practical prob based on combination
01.12.2022- till exam	.Sequence and series :AP and GP, sum of n terms of AP, Arithmetic mean between a and b, Sum of n terms of GP, Application of AP and GP.

NISHA YADAV  
MATHEMATICS DEPARTMENT

Dishayalau

## Lesson Plan for B. com 1<sup>st</sup> semester, 2022-2023

### Business mathematics

Dates	Content
27.08.2022-15.09.2022	Theory of sets, meaning elements, types, presentation and equality of sets
16.09.2022-08.10.2022	Union, Intersection, Complement and Difference of sets, Venn Diagram Cartesian product of two sets
09.10.2022-26.10.2022	Application of set theory, Law of Indices, Properties of logarithms, system of logarithms
27.10.2022-12.11.2022	Rules to find the characteristics and mantissa, Tables of logarithms, Introduction to Data Interpretation.S
13.11.2022-30.11.2022	Fundamental principle of counting, Difference between Permutations and combination, Restricted permutation, circular permutation, practical prob based on combination
01.12.2022-till exam	.Sequence and series :AP and GP, sum of n terms of AP, Arithmetic mean between a and b, Sum of n terms of GP, Application of AP and GP.

NISHA YADAV  
DEPARTMENT OF MATHEMATICS  
*Dishay Yadav*

Lesson plan for Bsc 5<sup>th</sup> 2022-2023

Numerical analysis

Date	content
22.08.2022- 15.09.2022	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.
16.09.2022- 08.10.2022	Newton's backward interpolation formulae. Interpolation with unequal intervals: Newton's divided difference, Lagrange's Interpolation formulae, Hermite Formula.
09.10.2022- 26.10.2022	Central Differences: Gauss forward and Gauss's backward interpolation formulae, Sterling, Bessel Formula.
27.10.2022- 12.11.2022	Probability distribution of random variables, Binomial distribution, Poisson's distribution, Normal distribution: Mean, Variance and Fitting
13.11.2022- 30.11.2022	Numerical Differentiation: Derivative of a function using interpolation formulae as studied in Eigen Value Problems: Power method, Jacobi's method, Given's method, House-Holder's method, QR method, Lanczos method
01.12.2022- Till exam	Numerical Integration: Newton-Cote's Quadrature formula, Trapezoidal rule, Simpson's one third and three-eighth rule, Chebychev formula, Gauss Quadrature formula. 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.

NISHA YADAV  
MATHEMATICS DEPARTMENT

*Nishayadav*

## MECHANICS OF SOLIDS-I

Dates	Content
22.08.2022- 15.09.2022	<b>Cartesian tensors:</b> Cartesian tensors of different order, Properties of tensors. Symmetric and skew-symmetric tensor, Isotropic tensors of different orders and relation between them. Tensor invariants, Eigen-values and eigen vectors of a second order tensor, Scalar, vector tensor functions.
16.09.2022- 08.10.2022	Comma notation, Gradient, Divergence and Curl of a tensor field. <b>Analysis of Stress:</b> Stress vector, stress components, Cauchy equations of equilibrium, Stress tensor, Symmetry of stress tensor, Stress quadric of Cauchy, Principal <i>stres</i> and invariants.
09.10.2022- 26.10.2022	Maximum normal and shear stresses, Mohr's diagram, Examples of tress. <b>Analysis of Strain:</b> Affine transformations, Infinitesimal affine deformation, Geometrical interpretation of the components of strain, Strain quadric of Cauchy, Principal strains and invariants.
27.10.2022- 12.11.2022	General infinitesimal deformation, Saint-Venant's equations of Compatibility, Finite deformations, Examples of uniform dilatation, simple extension and shearing strain. <b>Equations of Elasticity:</b> Hooke's law and its generalization, Hooke's law in media with one plane of symme try, orthotropic and transversely isotropic media, Homogeneous isotropic media, Elastic moduli for isotropic media.
13.11.2022- 30.11.2022	Equilibrium and dynamic equations for an isotropic elastic solid, Beltrami-Michell compatibility equations.
01.12.2022- till exam	Strain energy function, Clapeyron' s theorem, Saint-Ven ant' s Principle(statement only)

NISHA YADAV  
MATHEMATICS  
DEPARTMENT

Dinayalau

## LESSON PLAN FOR B.COM 2<sup>ND</sup> SEM SESSION: 2022-23

### BUSINESS MATHEMATICS

DATES	CONTENT
06.02.2023- 21.02.2023	Matrices and Determinants: Definition of a Matrix ; Types of Matrices, Algebra of Matrices; Calculation of values of Determinants up to third order; adjoint of a Matrix, elementary row and column operations;
22.02.2023- 13.03.2023	Finding inverse matrix through adjoint and elementary row or column operations.
14.03.2023- 31.03.2023	Differentiation (only algebraic problem) ; Application of differentiation
01.04.2023- 15.04.2023	Compound Interest and Annuities: Certain different types of interest rate; Concept of present value and amount of a sum;
16.04.2023- 30.04.2023	Ratio, Proportion and Percentage; Profit and Loss. Types of annuities; Present value and amount of an annuity, including the case of continuous compounding Types of annuities; Present value and amount of an annuity, including the case of continuous compounding
01.05.2023- TILL EXAM	Solution of a system of Linear equations having unique Solution and involving not more than three variables.

NISHA YADAV  
MATHEMATICS DEPARTMENT

*Nishayadav*

Lesson plan for M.Sc.-MATHEMATICS 2nd semester, 2022-2023

Computational Technique

DATES	Content
06.02.2023 - 21.02.2023	<b>Error Analysis:</b> Errors Absolute errors, Rounding errors, Truncation errors, Inherent Errors Major and Minor approximations in numbers. <b>The Solution of Linear Systems:</b> Gaussian elimination method with pivoting, Algorithm and convergence of Jacobi iterative Method, Algorithm and convergence of Gauss Seidel Method Method of Relaxation.
22.02.2023 - 13.03.2023	<b>The Solution of Non-Linear Equation:</b> Bisection Method, Fixed point iterative method Newton-Raphson method Muller's Method, Secant method, Method of false position, Algorithms and convergence of these methods, Complex roots by newton's method, System of two Equations by newton Method and Method of Iteration.
14.03.2023 - 31.03.2023	<b>Difference Operators:</b> Forward difference operators, Backward difference operators, Shift operator, Average and central difference operators and relation between them. <b>Interpolation:</b> Linear interpolation, Lagrange's interpolation Polynomial Divided difference Table, Interpolation with equidistant Points: Forward Difference Table and Backward Difference Table, Spline interpolation (Cubic) Chebyshev interpolation Polynomials, Errors and algorithms of these interpolation.
01.04.2023 - 15.04.2023	<b>Numerical Differentiation:</b> Differentiating continuous Functions; Forward Difference quotient, Central Difference Method Error analysis, Higher order derivatives, Differentiating tabulated function: Error analysis and Higher order derivatives Difference tables, Richardson Extrapolation. <b>Numerical Integration:</b> General Integration formula, Rectangular rule, Trapezoidal rule Simpson's rule, Boole's rule, Weddle's rule, Gaussian quadrature formulae, Errors in quadrature formulae, ewton-Cotes formulae Romberg Integration.
16.04.2023 - 30.04.2023	<b>Ordinary Differential Equations:</b> Euler's Method, Modified Euler's methods with error analysis, Taylor's series and Runge-Kutta methods with error analysis, Predictor-corrector methods for solving initial value problems, Finite Difference & Collocation methods. <b>Difference Equations:</b> Linear homogeneous and non-homogeneous difference equation with constant coefficients.
01.05.2023 till exam	<b>Eigenvalue and eigenvector:</b> The Faddeev-Leverrier method, Evaluating the Eigen Values and Determining the Eigen Vectors Power method.

NISHA YADAV  
MATHEMATICS  
DEPARTMENT

*P. K. Yadav*

# LESSON PLAN FOR BSC 4<sup>TH</sup> SEM SESSION: 2022-23

## SEQUENCE AND SERIES

DATES	CONTENT
06.02.2023- 21.02.2023	Boundedness of the set of real numbers; least upper bound, greatest lower bound of a set, neighborhoods, interior points, isolated points, limit points, open sets, closed set, interior of a set, closure of a set in real numbers and their properties. Bolzano-Weierstrass theorem, Open covers, Compact sets and Heine-Borel Theorem.
22.02.2023- 13.03.2023	Sequence: Real Sequences and their convergence, Theorem on limits of sequence, Bounded and monotonic sequences, Cauchy's sequence, Cauchy general principle of convergence, Subsequences, Subsequential limits.
14.03.2023- 31.03.2023	Infinite series: D-Alembert's ratio test, Raabe's test, Logarithmic test, de Morgan and Bertrand's test, Cauchy's Nth root test, Gauss Test, Cauchy's integral test, Cauchy's condensation test.
01.04.2023- 15.04.2023	Alternating series, Leibnitz's test, absolute and conditional convergence, Arbitrary series: Abel's lemma, Abel's test, Dirichlet's test, Insertion and removal of parenthesis, re-arrangement of terms in a series, Dirichlet's theorem.
16.04.2023- 30.04.2023	Riemann's Re-arrangement theorem, Pringsheim's theorem (statement only), Multiplication of series, Cauchy product of series, (definitions and examples only) Convergence and absolute convergence of infinite products.
01.05.2023- TILL EXAM	Infinite series: Convergence and divergence of Infinite Series, Comparison Tests of positive terms Infinite series, Cauchy's general principle of Convergence of series, Convergence and divergence of geometric series, Hyper Harmonic series or p-series.

NISHA YADAV  
MATHEMATICS  
DEPARTMENT

*(Signature)*

LESSON PLAN FOR BSC 6<sup>TH</sup> SEM SESSION: 2022-23

REAL AND COMPLEX ANALYSIS

DATES	CONTENT
06.02.2023- 21.02.2023	Jacobians, Beta and Gama functions, Double and Triple integrals, Dirichlets integrals, change of order of integration in double integrals.
22.02.2023- 13.03.2023	Fourier's series: Fourier expansion of piecewise monotonic functions, Properties of Fourier Co - efficient, Dirichlet's conditions
14.03.2023- 31.03.2023	Parseval's identity for Fourier series, Fourier series for even and odd functions, Half range series, Change of Intervals.
01.04.2023- 15.04.2023	Extended Complex Plane, Stereographic projection of complex numbers, continuity and differentiability of complex functions, Analytic functions, Cauchy-Riemann equations. Harmonic functions.
16.04.2023- 30.04.2023	Mappings by elementary functions: Translation, rotation, Magnification and Inversion. Conformal Mappings
01.05.2023- TILL EXAM	Mobius transformations. Fixed pints, Cross ratio, Inverse Points and critical mappings.

NISHA YADAV  
MATHEMATICS DEPARTMENT  



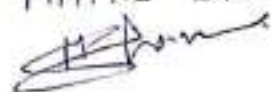

## Lesson Plan for B. com 1<sup>st</sup> semester, 2022-2023

### Business mathematics

Dates	Content
27.08.2022-15.09.2022	Theory of sets, meaning elements, types, presentation and equality of sets
16.09.2022-08.10.2022	Union, Intersection, Complement and Difference of sets, Venn Diagram Cartesian product of two sets
09.10.2022-26.10.2022	Application of set theory, Law of Indices, Properties of logarithms, system of logarithms
27.10.2022-12.11.2022	Rules to find the characteristics and mantissa, Tables of logarithms, Introduction to Data Interpretation.S
13.11.2022-30.11.2022	Fundamental principle of counting, Difference between Permutations and combination, Restricted permutation, circular permutation, practical prob based on combination
01.12.2022-till exam	.Sequence and series :AP and GP, sum of n terms of AP, Arithmetic mean between a and b, Sum of n terms of GP, Application of AP and GP.

MOHITA SHARMA

MATHS DPMT



Lesson plan for Bsc 1<sup>st</sup> sem 2022-2023

Calculus

Dates	Content
27.08.2022- 15.09.2022	Definition of the limit of a function. Basic properties of limits, Continuous functions and classification of discontinuities.
16.09.2022- 08.10.2022	Differentiability. Successive differentiation. Leibnitz theorem. Maclaurin and Taylor series expansions
09.10.2022- 26.10.2022	Asymptotes in Cartesian coordinates, intersection of curve and its asymptotes, asymptotes in polar coordinates. Curvature, radius of curvature for Cartesian curves, parametric curves, polar curves. Newton's method. Radius of curvature for pedal curves..
27.10.2022- 12.11.2022	Tangential polar equations. Centre of curvature. Circle of curvature. Chord of curvature, evolutes. Tests for concavity and convexity. Points of inflexion. Multiple points. Cusps, nodes & conjugate points. Type of cusps
13.11.2022- 30.11.2022	Tracing of curves in Cartesian, parametric and polar co-ordinates. Reduction formulae. Rectification, intrinsic equations of curve
01.12.2022- till exam	Quadrature (area) Sectorial area. Area bounded by closed curves. Volumes and surfaces of solids of revolution. Theorems of Pappu's and Guilden.

MOHITA SHARMA  
MATHS DIPT.



Lesson plan for BBA 1<sup>st</sup> sem 2022-2023

Business Mathematics

Dates	Content
27.08.2022-15.09.2022	Theory of sets –Meaning,elements,types of sets ,Union intersection complement and difference of sets
16.09.2022-08.10.2022	Venn diagram and Cartesian product of two sets ,Application of set theory,Indices and logarithms
09.10.2022-26.10.2022	Arithmetic and Geometric progression, sum of AP and GP
27.10.2022-12.11.2022	Permutation Combination and Binomial theorem,Quadratic equation.
13.11.2022-30.11.2022	Matrices ,Types,Properties ,Addition, Multiplication,Transpose and Inverse of Matrix,Properties of determinants.
01.12.2022-till exam	Linear Equations,Diifferentiations and Integration of algebraic function business application of Matrices,Differentiation and Integration.

MOHITA SHARMA

MATHS DPHT



Lesson plan for Bsc 3<sup>rd</sup> sem 2022-2023

Statics

Date	content
22.08.2022- 15.09.2022	Composition and resolution of forces. Parallel forces.
16.09.2022- 08.10.2022	Moments and Couples
09.10.2022- 26.10.2022	Analytical conditions of equilibrium of coplanar forces. Friction.
27.10.2022- 12.11.2022	Centre of Gravity Virtual work. Forces in three dimensions.
13.11.2022- 30.11.2022	Poinsots central axis Wrenches. Null lines and planes.
01.12.2022- TII exam	. Stable and unstable equilibrium

MOHITA SHARMA

MATHS DEPARTMENT

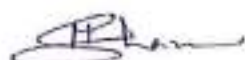


Lesson plan for Bsc.4<sup>th</sup> semester ,2022-2023

Special functions and Integral transforms

Dates	Content
06.02.2023- 21.02.2023	Power series method,Definitions of beta and gama functions,Bessels equation and its solutions
22.02.2023- 13.03.2023	Bessels functions and their properties,Legendre and hermite differential equations and their solutions,Recurrence relations and generating functions,Rodrigue formula for Legendre and Hermite polynomial
14.03.2023- 31.03.2023	Laplace transforms: Existing theorem for laplace transforms,Linearity of the laplace transform,shifting theorems, Differentiations and integrations of laplace transforms,Convolution theorem
01.04.2023- 15.04-2023	Inverse laplace transforms of derivative and integral,solutions of Ordinary differential equations using laplace transforms
16.04.2023- 30.04.2023	Doubt class,Fouriers Transforms: Liner property,shifting modulation,convolution theorem ,Relation between Fourier transform and laplace transforms.
01.05.2023- till exam	Solutions of differential equations using Fourier transforms, Revision of whole syllabus.

MOHITA SHARMA  
MATHS DEPARTMENT




Lesson Plan for Bsc.2<sup>nd</sup> semester ,2022-2023

Number Theory and Trigonometry

Dates	Content
06.02.2023- 21.02.2023	Divisibility ,LCM,GCD,Fundamental theorem of arithmetic ,Linear congruences,Fermats theorem ,Wilson's theorem and its converse
22.02.2023- 13.03.2023	Linear Diophantine equations in two variables,complete Residue system and reduced residue system Modulo $m$
14.03.2023- 31.03.2023	Eulers generalisation of Fermats theorem, Chinese Remainder theorem ,Quadratic Residues,Legendre symbols,Moebius function and Moebius inversion formula
01.04.2023- 15.04-2023	De-Moivres theorem and its applications,Expansion of trigonometrical functions
16.04.2023- 30.04.2023	Inverse circular and hyperbolic function and their properties,Logarithm of a complex quantity
01.05.2023- till exam	Summation of trigonometry series , Revision of whole syllabus.

MOHITA SHARMA

MATHS DEPARTMENT



LESSON PLAN FOR B.COM 2<sup>ND</sup> SEM SESSION: 2022-23

BUSINESS MATHEMATICS

DATES	CONTENT
06.02.2023- 21.02.2023	Matrices and Determinants: Definition of a Matrix ; Types of Matrices, Algebra of Matrices; Calculation of values of Determinants up to third order; adjoint of a Matrix, elementary row and column operations;
22.02.2023- 13.03.2023	Finding inverse matrix through adjoint and elementary row or column operations.
14.03.2023- 31.03.2023	Differentiation (only algebraic problem) ; Application of differentiation
01.04.2023- 15.04.2023	Compound Interest and Annuities: Certain different types of interest rate; Concept of present value and amount of a sum;
16.04.2023- 30.04.2023	Ratio, Proportion and Percentage; Profit and Loss. Types of annuities; Present value and amount of an annuity, including the case of continuous compounding Types of annuities; Present value and amount of an annuity, including the case of continuous compounding
01.05.2023- TILL EXAM	Solution of a system of Linear equations having unique Solution and involving not more than three variables.

MOHITA SHARMA

MATHS DEPARTMENT



Lesson plan for MSc. 4<sup>th</sup> semester, 2022-2023

**Mathematical Modeling**

Dates	Content
06.02.2023- 21.02.2023	The process of Applied Mathematics : mathematical modeling: need, techniques, classification and illustrative; mathematical modeling through ordinary differential equation of first order; qualitative solutions through sketching.
22.02.2023- 13.03.2023	Mathematical modeling in population dynamic s, epidemic spreading and compartment models; mathematical modeling through systems of ordinary differential equations
14.03.2023- 31.03.2023	Mathematical modeling in economics , medicine, arm-race , battle. Mathematical modeling through ordinary differential equations of second order. Higher order (linear) models.
01.04.2023- 15.04.2023	Mathematical modeling through difference equations: Need , basic theory ; mathematical modeling in probability theory, economics finance, population dynamics and genetics.
16.04.2023- 30.04.2023	Mathematical modeling through partial differential equations: simple models , mass-balance equations, variational principles .
01.05.2023 till exam	Probability generating function traffic flow problems, initial & boundary conditions.

MOHITA SHARMA

MATHS DEPARTMENT





## MECHANICS

DATES	CONTENT
12.09.2022- 27.09.2022	Moments and products of inertia. Theorems of parallel and perpendicular axes. Angular momentum of a rigid body about a fixed point and about a fixed axes. Principal axes.
28.09.2022- 12.10.2022	Kinetic energy of a rigid body rotating about a fixed point. Moment of inertia ellipsoid- Equipotential systems. Coplanar distributions. Euler's dynamical equations for the motion of a rigid body about a fixed point. Further properties of Rigid body motion under no forces.
13.10.2022- 26.10.2022	Generalized co-ordinates. Holonomic and Non-holonomic systems. Scleronomic and Rheonomic systems. Lagrange's equations for a simple holonomic dynamical system. Lagrange's equations for conservative and impulsive forces.
27.10.2022- 12.11.2022	Kinetic energy as a quadratic function of velocities. Generalized potential. Energy equation for conservative fields. Hamilton's canonical variables. Donkin's theorem. Hamilton canonical equations. Cyclic coordinate. Routh's procedure. Hamilton-Jacobi equation. Jacobi's theorem. Method of Separation of variables. Lagrange Brackets. Canonical Transformations.
13.11.2022- 28.11.2022	Poisson Bracket. Poisson's Identity. Jacobi-Poisson Theorem. Hamilton's Principle. Principle of Least action. Poincare Cartan Integral invariant. Whittaker's equations. Jacobi's equations. Condition of canonical character of a transformation in terms of Lagrange and Poisson brackets. Invariance of Lagrange and Poisson brackets under canonical transformations.
01.12.2022- TILL EXAM	Gravitation: Attraction and potential of rod, disc, spherical shells and sphere. Laplace and Poisson equations. Work done by self-attracting systems. Distributions for a given potential. Equipotential surfaces. Surface and solid harmonics. Surface density in terms of surface harmonics.

*Fauz*  
Dept. of Mathematics

**LESSON PLAN FOR MSC 1<sup>ST</sup> SEM 2022-23**  
**FLUID DYNAMICS**

DATES	CONTENT
12.09.2022- 27.09.2022	Kinematics - Velocity at a point of a fluid. Eulerian and Lagrangian methods. Stream lines, path lines and streak lines. Velocity potential. Irrotational and rotational motions. Vorticity and circulation. Equation of continuity. Boundary surfaces. Acceleration at a point of a fluid. Components of acceleration in cylindrical and spherical polar co-ordinates.
28.09.2022- 12.10.2022	Pressure at a point of a moving fluid. Euler's and Lagrange's equations of motion. Equations of motion in cylindrical and spherical polar co-ordinates. Bernoulli's equation. Impulsive motion. Kelvin's circulation theorem. Vorticity equation. Energy equation for incompressible flow.
13.10.2022- 26.10.2022	Acyelic and cyclic irrotational motions. Kinetic energy of irrotational flow. Kelvin's minimum energy theorem. Mean potential over a spherical surface. K.E. of infinite fluid. Uniqueness theorems.
27.10.2022- 12.11.2022	Three-dimensional sources, sinks and doublets. Images of sources, sinks and doublets in rigid impermeable infinite plane and in impermeable spherical surface.
13.11.2022- 28.11.2022	Axially symmetric flows. Liquid streaming past a fixed sphere. Motion of a sphere through a liquid at rest at infinity. Equation of motion of a sphere. K.E. generated by impulsive motion.
01.12.2022- TILL EXAM	Two dimensional motion. Kinetic energy of acyclic and cyclic irrotational motion. Use of cylindrical polar co-ordinates. Stream function. Axi-symmetric flow. Stoke's stream function. Stoke's stream function of basic flows.

*Fauzi*

## LESSON PLAN FOR BSC 3<sup>RD</sup> SEM

### ADVANCED CALCULUS

DATES	CONTENT
22.08.2022- 15.09.2022	Properties of continuous functions. Uniform continuity. Mean value theorem. Rolles theorem LAGRANGES MEAN VALUE THEOREM
16.09.2022- 05.10.2022	Taylor's theorem darboxes theorem. Intermediate value theorem for derivative .Indeterminate forms. Limit and continuity of real valued functions of two variables.
06.10.2022- 25.10.2022	Indeterminate forms. Limit and continuity of real valued functions of two variable partial differential total differential . composite function and implicit function.
26.10.2022- 15.11.2022	Change of variable. Homogeneous function . uulers theorem on homogeneous function. Taylor's theorem for functions of two variable. Differentiability of real valued function of two variable.
16.11.2022- 05.12.2022	Locus of centre of spherical curvature . involutes evolutes , Bertrand curves Surfaces tangents planes one parameter family of surface envelopes.
06.02.2022 TILL EXAM	Schwarz and younge theorem. Implicit function. Maxima and minima and saddle point of two variables . lagranges method of multipliers. hange of variable. Homogeneous function . eulers theorem on homogeneous function

*Ami*

Lesson plan for Bsc.1<sup>st</sup> semester 2022-2023

ALGEBRA

Dates	Content
27.08.2022-15.09.2022	Symmetric skew symmetric metrices. Rank of matrices.
16.09.2023-08.10.2023	Linear dependence and independence. Eigen values and vectors.
09.10.2023-25.10.2023	Characteristics equations minimal polynomial. Caley hemiton theorem.
26.10.2022-15.11.2022	Applications of matrices homogeneous and non homogeneous. Nature of roots of an equation. Desert rule of signs.
16.11.2022-05.12.2022	Consistency of system of linear equations unitary and orthogonal matrices
06.02.2022 till exam	Bilinear quadratic forms relation between roots and coefficients of general polynomial in one variable. Solutions of polynomials equation having conditions on roots. Common roots and multiple roots. Transformation of equations

*A. S. Sani*  
(Dept of Mathematics)

Lesson plan for M.Sc. 2<sup>nd</sup> semester, 2022-2023

TOPOLOGY

Dates	Content
06.02.2023- 21.02.2023	Definition and examples of topological spaces. Closed sets, Closure. Dense subsets, Neighbourhoods. Interior, exterior and boundary points of a set. Accumulation points and derived sets. Bases and sub-bases. Subspaces and relative topology. Operator and Neighbourhood.
22.02.2023- 13.03.2023	Compactness, compact sets, Basic properties of compactness. Continuous functions and homeomorphism. Connected spaces. Connectedness on the real line. Components. Locally connected spaces. Compactness, compact sets, Basic properties of compactness.
14.03.2023- 31.03.2023	Compactness and finite intersection property. Sequentially and countably compact sets. Local compactness and one point compactification. Stone-Cech compactification
01.04.2023- 15.04.2023	Compactness in metric spaces. Equivalence of compactness, countable compactness and sequential compactness in metric spaces. First and Second Countable spaces. Lindelof's theorem. Separable spaces
16.04.2023- 30.04.2023	Second Countability and Separability. Separation axioms. $T_0$ , $T_1$ and $T_2$ spaces. Their characterization and basic properties. Baire Category Theorem for locally compact Hausdorff spaces. Regular and normal spaces.
01.05.2023- till exam	Urysohn's Lemma and Tietze Extension theorem. $T_3$ and $T_4$ spaces. Complete regularity and Complete normality. $T_3$ , $T_4$ and $T_5$ spaces.

*Fouf*  
(Dept. of Mathematics)

Lesson plan for M.Sc. 4<sup>th</sup> semester, 2022-2023

Advanced Fluid Dynamics

Dates	Content
06.02.2023- 21.02.2023	Irrrotational motion in two-dimensions. Complex velocity potential. Milne-Thomson circle theorem. Two-dimensional sources, sinks, doublets and their images. Blasius theorem.
22.02.2023- 13.03.2023	Two-dimensional irrotational motion produced by motion of circular, co-axial and elliptical cylinders in an infinite mass of liquid. Vortex motion. Kelvin's proof of permanence. Motions due to circular and rectilinear vortices. Spiral vortex.
14.03.2023- 31.03.2023	Vortex doublet. Image of a vortex. Centroid of vortices. Single and double infinite rows of vortices. Karman vortex sheet. Applications of conformal mapping to fluid dynamics. Stress components in a real fluid. Relations between rectangular components of stress.
01.04.2023- 15.04.2023	Gradients of velocity. Connection between stresses and gradients of velocity. Navier-Stoke's equations of motion. Equations of motion in cylindrical and spherical polar co-ordinates. Plane Poiseuille and Couette flows between two parallel plates. Theory of lubrication.
16.04.2023- 30.04.2023	Flow through tubes of uniform cross-section in form of circle, annulus, ellipse and equilateral triangle under constant pressure gradient. Unsteady flow over a flat plate. Dynamical similarity. Inspection analysis. Reynolds number. Dimensional analysis. Buckingham theorem.
01.05.2023- till exam	Prandtl's boundary layer. Boundary layer equation in two-dimensions. Blasius solution. Boundary layer thickness, displacement thickness, momentum thickness.

*Fouzi*  
Dept. of Mathematics

Lesson plan for M.Sc. 4<sup>th</sup> semester, 2022-2023  
Computing lab –programming in Latex and Gnuplot

Dates	Content
06.02.2023- 21.02.2023	Introduction to LaTeX: Purpose of LaTeX, Typesetting System, typing your first article, typing text, structuring your document (sections and paragraphs), different packages.
22.02.2023- 13.03.2023	Typesetting math in LaTeX. Adding a picture, Generating a table of contents.
14.03.2023- 31.03.2023	Adding a bibliography, Adding footnotes, Creating tables with LaTeX, Plots - Plotting and Visualizing your data.
01.04.2023- 15.04.2023	Introduction to Gnuplot: graph plotting and data fitting, creating simple plots
16.04.2023- 30.04.2023	Plotting data from a file fitting a function to data.
01.05.2023- till exam	Revision

Soni  
Dept. of Mathematics

Lesson plan for B.SC 6<sup>th</sup> semester, 2022-2023

DYNAMICS

Dates	Content
06.02.2023- 21.02.2023	Velocity and acceleration along radial, transverse, tangential and normal directions.
22.02.2023- 13.03.2023	Relative velocity and acceleration. Simple harmonic motion. Elastic strings. Definitions of Conservative forces and Impulsive forces.
14.03.2023- 31.03.2023	Mass, Momentum and Force. Newton's laws of motion. Work, Power and Energy. Motion on smooth and rough plane curves
01.04.2023- 15.04.2023	Projectile motion of a particle in a plane. Vector angular velocity.
16.04.2023- 30.04.2023	General motion of a rigid body. Central Orbits, Kepler laws of motion. Motion of a particle in three dimensions.
01.05.2023- till exam	Acceleration in terms of different co-ordinate systems.

*Fanni*  
Dept. of Mathematics



TEACHING PLAN 2022-23  
DEPARTMENT OF ENGLISH  
CLASS: BA ENG HONS SEM -3

NAME: VANDANA YADAV  
PAPER TAUGHT: History of English Literature

DATES.	SYLLABUS DETAILS
22/8/22 to 31/8/22.	Introduction to the History of English literature.
1/9/22 to 15/9/22.	A detailed discussion on Anglo Saxon era.
16/9/22 to 30/9/22.	Introduction to the Age of Chaucer.
1/10/22 to 15/10/22.	Chaucer as the representative of the Age.
16/10/22 to 21/10/22.	Fifteenth century English Poetry.
22/10/22 to 26/10/22.	DIWALI BREAK
27/10/22 to 31/10/22.	Introduction to the Sixteenth Century.
1/11/22 to 15/11/22.	Influence of Renaissance on English literature.
16/11/22 to 30/11/22.	The University Wits.
1/12/22 to 15/12/22.	Jacobean Drama
16/12/22 to 30/12/22.	Spencer & Sonnets. Assignment Discussion.
31/12/22 to 8/01/23.	English Metaphysicals
9/01/23 to 29/01/23	Authorised Version of Bible
30/01/23 to 05/02/23	Tests and Discussion of problems.



TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH  
CLASS: BA ENG HONS SEM -5

NAME: Vandana Yadav  
PAPER TAUGHT: ENGLISH PROSE.

DATES.	SYLLABUS DETAILS
22/8/22 to 31/8/22.	Introduction to the Feminism Theory
1/9/22 to 15/9/22	Vindication of the Rights of Women. - Text
16/9/22 to 30/9/22.	Discussion on views of Education by Mary Woolstoncraft
1/10/22 to 15/10/22.	Silly Novels by lady novelist
16/10/22 to 21/10/22.	Discussion on George Eliot
22/10/22 to 26/10/22.	DIWALI BREAK
27/10/22 to 31/10/22.	Discussion on J.S Mill
1/11/22 to 15/11/22.	Subjection of Women- Text.
16/11/22 to 30/11/22.	Discussion on Subjection of Women
1/12/22 to 15/12/22.	Discussion on Thomas Huxley
16/12/22 to 30/12/22.	Science and Culture- Text
31/12/22 to 8/01/23.	Discussion on Science and Culture
9/01/23 to 29/01/23.	Assignment & Test.
30/01/23 to 05/02/23.	Discussion of Question and Answers.

TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH  
CLASS: BA PASS SEM - I

NAME: VANDANA YADAV  
PAPER TAUGHT: ENGLISH

DATES

SYLLABUS DETAILS

22/8/22 to 31/8/22.	Introduction to Speech Organs and Speech Sounds.
1/9/22 to 15/9/22.	Choosing Our Universe- Reading and Discussion
16/9/22 to 30/9/22.	Are Dams the Temples of Modern India- Reading and Discussion.
1/10/22 to 15/10/22.	The Generation Gap- Reading and Discussion
16/10/22 to 21/10/22.	Language and National identity-Text Assignments
22/10/22 to 26/10/22.	DIWALI BREAK
27/10/22 to 31/10/22.	Wounded Plants- Text Reading and Discussion
1/11/22 to 15/11/22.	Playing the English Gentleman- Reading and Discussion.
16/11/22 to 30/11/22.	Great Books Born Out of Great Minds- Reading. Test-1
1/12/22 to 15/12/22.	The Responsibility of Young Men- Reading and Discussion
16/12/22 to 30/12/22.	Bharat Mata- Reading and Discussion.
31/12/22 to 8/01/23.	Test-2 and Assignment Collection.
9/01/23 to 29/01/23.	Discussion of Problems and Questions

23 to 05/02/23.

Revision of Speech sounds and Practice.

TEACHING PLAN 2022-23

CLASS: BA SEM 3

NAME: VANDANA YADAV

PAPER TAUGHT: ENGLISH

DATES.

SYLLABUS DETAILS

22/8/22 to 31/8/22.

Introduction to the types of Poetry.

1/9/22 to 15/9/22.

Poetic forms and Devices

16/9/22 to 30/9/22.

Sonnet XVIII by W. Shakespeare

1/10/22 to 15/10/22.

Know then Thyself by Alexander Pope

16/10/22 to 21/10/22.

Transcription

22/10/22 to 26/10/22.

DIWALI BREAK

27/10/22 to 31/10/22

Elegy written in a country churchyard by T. Gray

1/11/22 to 15/11/22

The World is too Much with Us by W. Wordsworth

16/11/22 to 30/11/22

Ode on a Grecian Urn by Keats.

1/12/22 to 15/12/22.

My Last Duchess by Robert Browning

16/12/22 to 30/12/22.

When you are old by WB Yeats

31/12/22 to 8/01/23.

Where the Mind is Without Fear by R. Tagore

9/01/23 to 29/01/23.

The Bangle Sellers by Sarojini Naidu



## TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA ENG HONS SEM -4

NAME: Vandana Yadav

PAPER TAUGHT: History of English literature

## DATES.

## SYLLABUS DETAILS

6/2/23 to 15/2/23.	Discussion on Seventeenth Century
16/2/23 to 3/3/23.	Restoration comedy of Manners
4/3/23 to 8/3/23.	Heroic Tragedy.
9/3/23 to 15/3/23.	Dryden as a Neo Classicist. Class Test
16/3/23 to 31/3/23.	Discussion on Eighteenth Century
1/4/23 to 15/4/23.	Neo-classical school of Poetry
16/4/23 to 30/4/23.	Eighteenth century Prose
1/5/23 to 15/5/23.	Dr. Johnson as a Critic
16/5/23 to 3/6/23.	Revision and Test
4/6/23 to 11/6/23-	PREPARATORY BREAK

DEPARTMENT OF ENGLISH

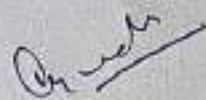
CLASS: BA ECO HONS SEM -I

NAME: VANDANA YADAV  
PAPER TAUGHT: ENGLISH

DATES.

SYLLABUS DETAILS

6/2/23 to 15/2/23.	The Bet by Anton Chekhov
16/2/23 to 3/3/23.	Gift of the Magi by O Henry
4/3/23 to 8/3/23.	The Postmaster by R. Tagore
9/3/23 to 15/3/23.	Three Questions by Leo Tolstoy and Assignment
16/3/23 to 31/3/23.	The Dying Detective by AC Doyle
1/4/23 to 15/4/23.	Under the Banyan Tree by RK Narayan
16/4/23 to 30/4/23.	Grammar and Writing Skills
1/5/23 to 15/5/23.	Technical Writing
16/5/23 to 3/6/23	Revision and Tests.
4/6/23 to 11/6/23-	PREPARATORY BREAK



DEPARTMENT OF ENGLISH

CLASS: BA ENG HONS SEM -2

NAME: VANDANA YADAV  
PAPER TAUGHT: ENGLISH

DATES.

SYLLABUS DETAILS

6/2/23 to 15/2/23.	Pigeons at Daybreak- Anita Desai
16/2/23 to 3/3/23.	With the Photographer- Stephen Leacock- Text and Questions.
4/3/23 to 8/3/23.	The Journey-Temsula Ao- Text and Questions.
9/3/23 to 15/3/23.	The Refugee- KA Abbas- Text Reading and Questions.
16/3/23 to 31/3/23.	Bellows for the Bullock- assignment and Test
1/4/23 to 15/4/23.	Panchlight- Text and Exercise
16/4/23 to 30/4/23.	The Blind Dog- R K Narayan
1/5/23 to 15/5/23.	Assignment Collection and Grammar revision.
16/5/23 to 3/6/23.	Revision and Test
4/6/23 to 11/6/23-	PREPARATORY BREAK



DEPARTMENT OF ENGLISH

CLASS: BA ENG SEM -6

NAME: VANDANA YADAV  
PAPER TAUGHT: ENGLISH

DATES.

SYLLABUS DETAILS

6/2/23 to 15/2/23.	Discussion on characteristics of Plays.
16/2/23 to 3/3/23.	The Envoy - Text
4/3/23 to 8/3/23.	The Swan Song - Text
9/3/23 to 15/3/23.	The Monkey's Paw Text and Discussion.
16/3/23 to 31/3/23.	Assignment. Discussion of the play.
1/4/23 to 15/4/23.	Before Breakfast Text and Discussion
16/4/23 to 30/4/23.	The Sleepwalkers Text and Discussion
1/5/23 to 15/5/23.	Grammar and Writing Skills
16/5/23 to 3/6/23.	Composition skills and Revision.
4/6/23 to 11/6/23-	PREPARATORY BREAK





Lesson plan for B.A ECO (H) 1<sup>st</sup> Semester, 2022-2023

LANGUAGE AND LITERATURE

Dates	Content
22.08.2022- 15.09.2022	" Let Me Not to the Marriage of True Minds ", " Death Be Not Proud "
16.09.2022- 05.10.2022	" On His Blindness ", " Know Then Thyself, " The Little Black Boy "
06.10.2022- 25.10.2022	" Three Years She Grew in Sun and Shower" Assignment will be given based on above poems and a class test will be organized
26.10.2022- 15.11.2022	Phonetics : Introduction to the Sound System of English : Phonetics Symbols , Organs of Speech ,class test on transcription will be given.
16.11.2022- 05.12.2022	Grammar : Parts of Speech , Types of Sentences , Common Errors , Technical Writing ( application writing , business letter) Assignment on Grammar will be given
06.02.2022- till exam	Revision of the whole syllabus

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Lesson plan for B.A ENG (H) 1<sup>st</sup> Semester, 2022-23

PHONETICS

Dates	Content
22.08.2022- 15.09.2022	Organs of Speech ( i ) Basic Concepts : Phoneme, Vowel, Consonant and Syllable Activity: class presentation of organs of speech
16.09.2022- 05.10.2022	Place of Articulation , Manner of Articulation , Brief Description of Vowels Activity: Class test and Assignment on the syllabus covered
06.10.2022- 25.10.2022	Phonemic transcription of simple words in D (vii) Word Stress Activity: class test on transcription
26.10.2022- 15.11.2022	Verbs : i ) ii ) Main and Auxiliaries Linking ( or equivalent ) Intransitive and Transitive iii ) Finite and Non Finite 3 Verb Patterns Activity: Blackboard practice on verbs
16.11.2022- 05.12.2022	Types of Sentences : Simple, Complex and Compound with particular reference to Nouns, Relatives, Conditional and Co - ordinate clauses Phrasal Verbs Activity: Practice test through blackboard
06.02.2022- till exam	Revision of the whole syllabus

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Lesson plan for B.A ENG (H) 1<sup>st</sup> Semester, 2022-23

FICTION

Dates	Content
22.08.2022- 15.09.2022	Introduction   Meaning and Types of Fiction , Story , Plot , Point of view , Character , Setting , Tone and Style , Theme , Symbols , Narrative Technique , Prophecy and Fantasy . Types of Characters , Rhythm
16.09.2022- 05.10.2022	Nathaniel Hawthorne John Steinbeck " Araby " " A and P " A Rose for Emily Activity:Class test
06.10.2022- 25.10.2022	" Gimpel the Fool " " Young Goodman Brown " Activity:Assignment on previously covered syllabus
26.10.2022- 15.11.2022	Ernest Hemingway The Sun Also Rises Activity: Group Discussion on theme title and symbol
16.11.2022- 05.12.2022	" The Chrysanthemums " Activity: Assignment on the syllabus covered
06.02.2022- till exam	Revision of the whole syllabus

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Lesson plan for B.C.A. 3rd Semester, 2022-23

COMMUNICATION SKILL

Dates	Content
22.08.2022- 15.09.2022	Introduction to Basics of Communication: Communication and its various definition, features/characteristics of the communication, process of communication, communication model and theories, barrier to effective communication Activity: Class Demo by every student
16.09.2022- 05.10.2022	Improving LSRW: introduction, verbal and nonverbal communication, listening process, group discussion, forms of oral presentation, self-presentation, dyadic communication, 5C's of communication, Developing dialogues, soft skill. Activity: Group Discussion
06.10.2022- 25.10.2022	Basic vocabulary: how to improve vocabulary, prefix/suffix, synonyms/antonyms, one word substitution, spellings Developing fluency: grammar (conjunction, auxiliaries, prepositions, articles, tenses.....), language games. Activity: Two assignments on grammar and communication theories
06.10.2022- 15.11.2022	Proper use of Language: The Communication Skills, The effective Speech. Effective self-presentation & facing interview: The interview process Activity: Class room practice of interview process
06.11.2022- 05.12.2022	Presentation by students Class test on the syllabus covered

*H. K. Chaudhary*

Lesson plan for B.A ENG (H) 3rd Semester, 2022-23

POETRY

Dates	Content
22.08.2022- 15.09.2022	Unit II Sir Edward Dyer : —My Mind To Me a Kingdom Is  Henry Howard Earl of Surrey : —Youth and Age
16.09.2022- 05.10.2022	I Christopher Marlowe : —The Passionate Shepherd to His Love  William Shakespeare : —They that have Power to Hurt and will Do None  Thomas Campion : —Fain Would I Wed
06.10.2022- 25.10.2022	I Sir Philip Sidney : —Let Not Old Age Disgrace My High Desire  Edmund Spenser : —One day I wrote her name upon the strand <b>ASSIGNMENT ON THE SYLLABUS COVERED</b>
26.10.2022- 15.11.2022	Unit III Donne: —Air and Angles   —O! might those sighs and tears return again   —Jealousy   —The Autumnal   —Sweetest love, I do not go   —A Fever   Class test on the previously covered syllabus
16.11.2022- 05.12.2022	Unit I Chaucer: (i) Prologue to The Canterbury Tales (Lines 1-42) (ii) —The Words of the Host to the Company (iii) Prologue to the Lawyer's Tale  Assignment II
06.02.2022- till exam	Revision of the whole syllabus

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Lesson plan for B.A ENG (H) 4<sup>th</sup> Semester, 2022-23

POETRY

Dates	Content
06.02.2023- 21.02.2023	Unit I John Dryden: (i) Mac Flecknoe (ii) —A Song for St Cecilia's Day
22.02.2023- 13.03.2023	Unit II Alexander Pope: Essay on Man (Extracts) Epistle 2 Assignment I
14.03.2023- 31.03.2023	Unit II Alexander Pope: Essay on Man (Extracts) Epistle 2 Class test I
01.04.2023- 15.04.2023	Unit III Charlotte Smith: (i) —Sonnet: To A Nightingale (ii) —Sonnet: To Solitude Mary Robinson: —Lifel Assignment II
16.04.2023- 30.04.2023	Sarah Dixon: —The Return'd Heart   Mary Montagu: —The Lover, A Ballad   Mary Leapor: —An Epistle To A Lady   CLASS TEST II
01.05.2023- till exam	Revision of the whole syllabus

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Lesson plan for B.A ENG (H) 2<sup>nd</sup> Semester, 2022-23

Introduction to Prose

Dates	Content
06.02.2023- 21.02.2023	Francis Bacon : — Of Revengel Thomas Browne : — On Dreams Activity: Essay writing
22.02.2023- 13.03.2023	Jonathan Swift : — A Treatise on Good Manners and Good Breeding  Joseph Addison : — Sir Roger in Westminster Abbey  Assignment I
14.03.2023- 31.03.2023	Samuel Johnson : — Dignity and Uses of Biography  Oliver Goldsmith : — On National Prejudices Class test I
01.04.2023- 15.04.2023	T.H. Huxley : — From Evolution and Ethics  Oscar Wilde : — The True Critic  Bertrand Russell : — On Being Modern-Minded  Assignment II
16.04.2023- 30.04.2023	Virginia Woolf : — The Death of the Moth  Aldous Huxley : — Meditation on the Moon  V.S. Naipaul : — Columbus and Crusoe   Class test II
01.05.2023- till exam	Revision of the whole syllabus

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Lesson plan for B.A ENG (H) 6th Semester, 2022-23

POETRY

Dates	Content
06.02.2023- 21.02.2023	Unit I W. B. Yeats : —Easter 1916  —The Second Coming  — Activity: Poem recitation
22.02.2023- 13.03.2023	Sailing to Byzantium  — Among School Children  Class test I
14.03.2023- 31.03.2023	Unit II Philip Larkin : —Ambulances  —Church Going  —MCMXIV  —The Explosion Assignment I
01.04.2023- 15.04.2023	Unit III W. H. Auden : —Lullaby  —As I Walked Out One Evening  Class test II
16.04.2023- 30.04.2023	—The Shield of Achilles  —The Unknown Citizen  Assignment II
01.05.2023- till exam	Revision of the whole syllabus

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Lesson plan for B.A ENG (II) 2<sup>nd</sup> Semester, 2022-23

Introduction to Drama and Related Terms

Dates	Content
06.02.2023- 21.02.2023	Unit-I Aspects of Drama: Meaning and Types of Drama, Story, Plot, Point of view, Character, Setting, Theme, Narrative Technique, Three Unities, Types of Characters, Farce, Tragi-comedy
22.02.2023- 13.03.2023	Unit-II William Shakespeare The Merchant of Venice Activity: Dramatisation of the play
14.03.2023- 31.03.2023	Unit-III Anton Chekhov The Marriage Proposal Assignment I
01.04.2023- 15.04.2023	Unit IV Rabindranath Tagore The Post Office Class test I
16.04.2023- 30.04.2023	Assignment II Class test II
01.05.2023- till exam	Revision of the whole syllabus

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TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA PASS SEM -2

NAME: DR MEENAKSHI DALAL  
PAPER TAUGHT: ENGLISH

DATES.	SYLLABUS DETAILS
6/2/23 to 15/2/23.	Pigeons at Daybreak- Anita Desai
16/2/23 to 3/3/23.	With the Photographer- Stephen Leacock- Text and Questions.
4/3/23 to 8/3/23.	The Journey-Temsula Ao- Text and Questions.
9/3/23 to 15/3/23.	The Refugee- KA Abbas- Text Reading and Questions.
16/3/23 to 31/3/23.	Bellows for the Bullock- assignment and Test
1/4/23 to 15/4/23.	Panchlight- Text and Exercise
16/4/23 to 30/4/23.	The Blind Dog- R K Narayan
1/5/23 to 15/5/23.	Assignment Collection and Grammar revision.
16/5/23 to 3/6/23.	Revision and Test
4/6/23 to 11/6/23-	PREPARATORY BREAK

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TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA ENG HONS SEM -4

NAME: DR MEENAKSHI DALAL

PAPER TAUGHT: ENGLISH DRAMA AND PROSE (1660-1798)

DATES.

SYLLABUS DETAILS

6/2/23 to 15/2/23.	Discussion on evolution of Drama and William Congreve
16/2/23 to 3/3/23.	Love for Love- William Congreve-Text and Discussion
4/3/23 to 8/3/23.	The School for Scandal- Sheridan Text and Discussion. Assignment.
9/3/23 to 15/3/23.	Richard Steele and Joseph Addison- The Spectator, Class Test
16/3/23 to 31/3/23.	The Spectator essay no 1
1/4/23 to 15/4/23.	The Spectator essay no 2, 10 and 39
16/4/23 to 30/4/23.	The Spectator essays 40, 42, 68
1/5/23 to 15/5/23.	The Spectator essay no 82 and 144
16/5/23 to 3/6/23.	Revision and Test
4/6/23 to 11/6/23-	PREPARATORY BREAK

*Meenakshi Dalal*

TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA ENG HONS SEM -6

NAME: DR MEENAKSHI DALAL  
PAPER TAUGHT: ENGLISH DRAMA (1914-1968)

DATES.

SYLLABUS DETAILS

6/2/23 to 15/2/23.	Evolution of Drama - the various stages it passed through
16/2/23 to 3/3/23.	Murder in the Cathedral- Text
4/3/23 to 8/3/23.	Murder in the Cathedral- Text and discussion of main questions.
9/3/23 to 15/3/23.	Saint Joan- Bernard Shaw- Text and Assignment
16/3/23 to 31/3/23.	Saint Joan- Discussion
1/4/23 to 15/4/23.	Look Back in Anger- John Osborne
16/4/23 to 30/4/23.	Look Back in Anger- Discussion of text and questions.
1/5/23 to 15/5/23.	Reference to context - Detailed discussion
16/5/23 to 3/6/23	Revision and Tests.
4/6/23 to 11/6/23-	PREPARATORY BREAK

*Meenakshi Dalal*

TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA PASS SEM -6

NAME: DR MEENAKSHI DALAL  
PAPER TAUGHT: ENGLISH

DATES.

SYLLABUS DETAILS

6/2/23 to 15/2/23.	The Development of Drama - Discussion
16/2/23 to 3/3/23.	Shakespeare- Age and Background.
4/3/23 to 8/3/23.	The Merchant of Venice- Shakespeare
9/3/23 to 15/3/23.	The Merchant of Venice- Text and Discussion.
16/3/23 to 31/3/23.	Assignment. Discussion of the play.
1/4/23 to 15/4/23.	The Merchant of Venice- Discussion of questions and characters
16/4/23 to 30/4/23.	The Merchant of Venice- Completion of text
1/5/23 to 15/5/23.	The Merchant of Venice - Reference to context and test
16/5/23 to 3/6/23.	Composition skills and Revision.
4/6/23 to 11/6/23-	PREPARATORY BREAK

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TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA PASS SEM -1

NAME: DR MEENAKSHI DALAL  
PAPER TAUGHT: ENGLISH

DATES	SYLLABUS DETAILS
22/8/22 to 31/8/22.	Introduction to Speech Organs and Speech Sounds.
1/9/22 to 15/9/22.	Choosing Our Universe- Reading and Discussion
16/9/22 to 30/9/22.	Are Dams the Temples of Modern India- Reading and Discussion.
1/10/22 to 15/10/22.	The Generation Gap- Reading and Discussion
16/10/22 to 21/10/22.	Language and National identity-Text Assignments
22/10/22 to 26/10/22.	DIWALI BREAK
27/10/22 to 31/10/22.	Wounded Plants- Text Reading and Discussion
1/11/22 to 15/11/22.	Playing the English Gentleman- Reading and Discussion.
16/11/22 to 30/11/22.	Great Books Born Out of Great Minds- Reading. Test-1
1/12/22 to 15/12/22.	The Responsibility of Young Men- Reading and Discussion
16/12/22 to 30/12/22.	Bharat Mata- Reading and Discussion.
31/12/22 to 8/01/23.	Test-2 and Assignment Collection.
9/01/23 to 29/01/23.	Discussion of Problems and Questions
30/01/23 to 05/02/23.	Revision of Speech sounds and Practice.

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TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA ENG HONS SEM -3

NAME: DR MEENAKSHI DALAL

PAPER TAUGHT: ENGLISH DRAMA (1350-1660)

DATES SYLLABUS DETAILS

22/8/22 to 31/8/22. Introduction to the evolution of drama and a discussion of the various stages in its development.

1/9/22 to 15/9/22. A detailed discussion on Shakespeare and his work. Introduction to Shakespeare's tragedy and Othello.

16/9/22 to 30/9/22. Othello - Discussion of the text

1/10/22 to 15/10/22. Othello - Discussion of the text

16/10/22 to 21/10/22. Othello- As a tragedy , Aristotle's concept of tragedy, Character study.

22/10/22 to 26/10/22. DIWALI BREAK

27/10/22 to 31/10/22. Ben Jonson's Everyman in his Humour- Introduction.

1/11/22 to 15/11/22. Everyman in His Humour- Text

16/11/22 to 30/11/22. Characters vis a vis the ancient humours.

1/12/22 to 15/12/22. Thomas Middleton - A Chaste Maid in Cheapside- Introduction

16/12/22 to 30/12/22. A Chaste Maid in Cheapside- Text. Assignment Discussion.

31/12/22 to 8/01/23. A Chaste Maid in Cheapside- Questions and Characters

9/01/23 to 29/01/23. Reference to Context of all the plays prescribed in the syllabus.

30/01/23 to 05/02/23. Tests and Discussion of problems.

*Meenakshi Dalal*

9/01/23 to 29/01/23.

Discussion of reference to Context.

30/01/23 to 05/02/23.

Discussion of Question and Answers.

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TEACHING PLAN 2022-23

DEPARTMENT OF ENGLISH

CLASS: BA ENG HONS SEM -5

NAME: DR MEENAKSHI DALAL

PAPER TAUGHT: ENGLISH POETRY. (1798-1914)

DATES:

SYLLABUS DETAILS

22/8/22 to 31/8/22.

Introduction to the Romantic age and William Wordsworth

1/9/22 to 15/9/22

Wordsworth's - Lines Written in Early Spring

16/9/22 to 30/9/22.

Composed Upon Westminster Bridge

1/10/22 to 15/10/22.

London 1802 and Discussion of questions on Wordsworth

16/10/22 to 21/10/22.

John Keats- To Autumn and La Belle Dame Sans Merci

22/10/22 to 26/10/22.

DIWALI BREAK

27/10/22 to 31/10/22.

P B Shelley's Ode to the Westwind

1/11/22 to 15/11/22.

England in 1819- Disussion . Assignments.

16/11/22 to 30/11/22.  
Sestos to Abydos

Lord Byron-She Walks in Beauty and Written after Swimming from

1/12/22 to 15/12/22.

Introduction to Victorian Age- Porphyria's Lover and My Last Duchess

16/12/22 to 30/12/22.

Mathew Arnold- Dover Beach

31/12/22 to 8/01/23.

Mathew Arnold- Memorial Verses April 1850

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NAME: DR MEENAKSHI DALAL  
PAPER TAUGHT: ENGLISH

DATES.	SYLLABUS DETAILS
22/8/22 to 31/8/22.	Introduction to the rise of novel.
1/9/22 to 15/9/22.	Discussion on Raja Rao and the freedom struggle of India.
16/9/22 to 30/9/22.	Kanthapura- By Raja Rao- Introduction
1/10/22 to 15/10/22.	Kanthapura- Reading
16/10/22 to 21/10/22.	Kanthapura- Reading and Discussion
22/10/22 to 26/10/22.	DIWALI BREAK
27/10/22 to 31/10/22	Kanthapura- Reading and Discussion
1/11/22 to 15/11/22	Kanthapura- Reading and Discussion
16/11/22 to 30/11/22	Kanthapura- Reading and Discussion
1/12/22 to 15/12/22.	Kanthapura- Reading and Discussion
16/12/22 to 30/12/22.	Kanthapura- Discussion of main characters
31/12/22 to 8/01/23.	Discussion of Literary Terms
9/01/23 to 29/01/23.	Conditional Sentences
30/01/23 to 05/02/23.	Revision and tests

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**Lesson Plan (2022-23)**

**Class : BAJMC 1<sup>st</sup> Sem**

**Sub : Introduction to Communication**

**Week -1**

Communication : Concept and Definitions, Functions of communication

**Week – 2**

process of communication

elements of communication and barriers in communication

**Week – 3**

Verbal, non-verbal communication

Concept of listening

**Week – 4**

visual communication, feedback

**Week – 5**

Intrapersonal communication, Interpersonal communication

**Week – 6**

Group communication

**Week – 7**

Concept of Speaking

**Week – 8**

Responsibility of a public speaker

**Week – 9**

Mass communication

**Week – 10**

Revision

**Week – 11**

Revision



BAJMC 1<sup>st</sup> Sem

Sub : INTRODUCTION TO MEDIA AND JOURNALISM

Week – 1

Meaning and Concept of Media

Week -2

Evolution of Media

Week – 3

Types of Media: Traditional Media, Print Media, Electronic Media, Digital Media, Social Media

Week – 4

Entertainment Media

Week -5

Informative Media : Newspaper, Magazine, Radio and TV News Channels, YouTube News Channels

Week – 6

Journalism : Concept and Definitions, Objectives of Journalism, Challenges before Journalism

Week – 7

Freedom of Expressions and Speech

Week – 8

Journalist and his/her qualities

Week – 9

Role and Responsibilities of a Journalist

Week – 10

Revision

Week – 11

Revision



**BAJMC 2<sup>nd</sup> Sem**

**Sub : Writing Skills**

Week – 1

Basic Principles of Media Writing

Week -2

Kinds of Writing for Mass Media

Week – 3

Letter to Editor

Week – 4

News Writing

Week -5

Feature Writing

Week – 6

Article Writing

Week – 7

Story Writing

Week – 8

Interview Writing

Week – 9

Book Review Writing

Week – 10

Revision

Week – 11

Revision



**BAJMC 2<sup>nd</sup> Sem**

**Sub : New Media**

**Week – 1**

Introduction to Internet

History of Internet

**Week -2**

Reach and access of Internet in India

Applications of Internet

**Week – 3**

Online Journalism

News Websites

**Week – 4**

Online aesthetics

**Week -5**

Online writing and Editing, Participatory Journalism

**Week – 6**

Blogging, Podcasting, Video casting

**Week – 7**

Web Team,

**Week – 8**

Web and its uses in Media

**Week – 9**

Social Media

**Week – 10**

Revision

**Week – 11**

Revision



## Lesson Plan (2022-23)

Class : BAJMC 3<sup>rd</sup> Sem

Sub : History of World Media

Week – 1

Brief History of Print Media in World

Week -2

Evolution of Paper

Week – 3

Major News Agencies of world

Week – 4

History of Radio

Week -5

History of Television

Week – 6

History of Cinema

Week – 7

Current Status of Newspaper world wide

Week – 8

Current Status of Radio world wide

Week – 9

Current Status of Cinema world wide

Week – 10

Revision

Week – 11

Revision



Class : BAJMC 3<sup>rd</sup> Sem

Sub : Reporting

Week – 1

Concept of News

Week -2

Hard and Soft News

Week – 3

News Sources

Week – 4

Verification and validation of facts

Week -5

News Writing Skills

Week – 6

Inverted pyramid structure

Week – 7

Tools of Reporting

Week – 8

Qualities and Responsibilities of Reporters

Week – 9

Types of Reporting

Week – 10

Revision

Week – 11

Revision



## Lesson Plan (2022-23)

Class : BAJMC 4<sup>th</sup> Sem

Sub : History of India Media

Week – 1

Brief History of Print Media in India

Week -2

Role of Newspaper in Indian freedom movement

Week – 3

Post independence press in India

Week – 4

News Agencies in India

Week -5

Origin and Development of Radio in India

Week – 6

Development of AIR

Week – 7

Development of Community Radio in India

Week – 8

Emergence of Color Television in India

Week – 9

History of Indian Cinema

Week – 10

Revision

Week – 11

Revision



Class : BAJMC 4<sup>th</sup> Sem

Sub : Editing

Week - 1

Concept of Editing

Week - 2

Writing Leads

Week - 3

Structure of News Desk

Week - 4

Role of News Editor

Week - 5

Skills of Editing

Week - 6

Do's and Don'ts of Editing

Week - 7

Development of Community Radio in India

Week - 8

Qualities of Sub Editor

Week - 9

Headlines Writing

Week - 10

Revision

Week - 11

Revision



Government College, Sector 9 Gurugram

Lesson Plan for 2022-2023 ( Odd Semester)

Name of Assistant Professor – Mukesh Kumari  
Subject – Physics  
Paper-Quantum Physics

Class – B.Sc. 3rd Year  
Semester – 5th  
Session – August 2022 – January 2023

DATE	Topics
22-8-22 to 31-8-22	Failure of (Classical) E.M. Theory, quantum theory of radiation (old quantum theory), Photon.
1-9-22 to 15-9-22	Photoelectric effect and Einstein's photoelectric equation, Compton effect (theory and result), Inadequacy of old quantum theory, de-Broglie hypothesis
16-9-22 to 30-9-22	Time-energy and angular momentum, position uncertainty Uncertainty principle from de-Broglie wave, (wave-particle duality)
1-10-22 to 15-10-22	Gamma Ray Microscope, Electron diffraction from a slit, Numerical problems, revision followed by test
16-10-22 to 21-10-22	Derivation of time dependent Schrodinger wave equation, eigen values, eigen functions, wave functions and its significance
22-10-22 to 26-10-22	<b>DIWALI BREAK</b>
27-10-22 to 31-10-22	Test - I
1-11-22 to 15-11-22	Normalization of wave function, concept of observable and Operator, Numerical problems, Assignment work and revision of unit, Solution of Schrodinger equation for harmonic oscillator ground states and excited states, Assignment work and revision of unit
16-11-22 to 30-11-22	Application of Schrodinger equation in the solution of the following one-dimensional problems: Free particle in one dimensional box (solution of Schrodinger wave equation, eigen function, eigen values, quantization of energy and momentum, nodes and antinodes, zero point energy), i) One-dimensional potential barrier $E > V_0$ (Reflection and Transmission coefficient), ii) One-dimensional potential barrier, $E < V_0$ (Reflection Coefficient, penetration of leakage coefficient, penetration depth)
1-12-22 to 15-12-22	i) One-dimensional step barrier $E > V_0$ (Reflection and Transmission coefficient), ii) One-dimensional step barrier, $E < V_0$ (Reflection Coefficient, penetration of leakage coefficient, penetration depth).
16-12-22 to 30-12-22	Test and revision
31-12-22 to 5-02-23	Preparatory break, Examination, WINTER BREAK

Mukesh Kumari

**Government College, Sector 9 Gurugram**

**Lesson Plan for 2022-2023 ( Odd Semester)**

Name of Assistant Professor – Mukesh Kumari  
Subject – Physics  
Paper-Optics-I

Class – B.Sc 2nd Year  
Semester – 3rd  
Session – August 2022 – January 2023

DATE	Topic
22-8-22 to 31-8-22	Fourier Analysis and Fourier Transforms : Speed of transverse waves on a uniform string. Speed of longitudinal waves in a fluid. superposition of waves (physical idea).
1-9-22 to 15-9-22	Fourier Analysis of complex waves and its application for the solution of triangular and rectangular waves. Static & Dynamic half and full wave rectifier outputs. Fourier transforms and its properties. Application of fourier transform to following function. 1. $f(x) = e^{-x^2}$ 2. $f(x) = 1$ $ x  < a$ $0$ $ x  > a$
16-9-22 to 30-9-22	Geometrical Optics : Matrix methods in paraxial optics, effects of translation and refraction, derivation of thin lens and thick lens formulae.
1-10-22 to 15-10-22	Unit plane, nodal planes, system of thin lenses, Chromatic, spherical coma, astigmatism and distortion aberrations and their remedies.
16-10-22 to 21-10-22	Diwali Break
22-10-22 to 26-10-22	Test and Revision of Unit 1 and 2, Assignment 1
27-10-22 to 31-10-22	Introduction of basic optics, Interference : Interference by Division of Wavefront
1-11-22 to 15-11-22	Fresnel's Biprism and its applications to determination of wave length of sodium light
16-11-22 to 30-11-22	applications to determination of wave length of sodium light and thickness of a mica sheet, Lloyd's mirror, phase change on reflection.
1-12-22 to 15-12-22	revision of unit 3
16-12-22 to 30-12-22	Assignment and presentation. Test and revision of entire syllabus .Discussion on examination pattern
31-12-22 to 8-01-23	Preparatory Break
9-1-23 to 29-1-23	Examination
30-1-23 to 5-2-23	Winter break

*Mukesh Kumari*

Government College, Sector 9 Gurugram

Lesson Plan for 2022-2023 ( Even Semester)

Name of Assistant Professor - Mukesh Kumari

Class - B.Sc. 2nd Year

Subject - Physics

Semester - 4th

Paper-Optics -II

Session - Feb 2023 to June 2023

DATE	Topics
9-2-23 to 15-2-23	Introduction of Interference by Division of Amplitude
16-2-23 to 3-3-23	Colour of thin, films, wedge shaped film, Newton's rings. Interferometers: Michelson's interferometer and its application to (I) Standardisation of a meter (II) determination of wave length.
4-3-23 to 8-3-23	<b>Holi Break</b>
9-3-23 to 15-3-23	Fresnel's Diffraction : Fresnel's half period zones, zone plate, diffraction at a straight edge, rectangular slit and circular aperture.
16-3-23 to 31-3-23	Fraunhofer diffraction : One slit diffraction, Two slit diffraction N-slit diffraction, Plane transmission grating spectrum, Dispersive power of a grating
1-4-23 to 15-4-23	Limit of resolution, Rayleigh's criterion, resolving power of telescope and a grating Test of unit 2
16-4-23 to 30-4-23	Polarization :Polarisation and Double Refraction : Polarisation by reflection, Polarisation by scattering, Malus law, Phenomenon of double refraction, Huygen's wave theory of double refraction (Normal and oblique incidence), Analysis of Polarised light ; Nicol prism, Quarter wave plate and half wave plate.
1-5-23 to 15-5-23	production and detection of (i) Plane polarized light (ii) Circularly polarized light and (iii) Elliptically polarized light, Optical activity, Fresnel's theory of rotation, Specific rotation, Polarimeters (half shade and Biquartz).
16-5-23 to 3-6-23	Revision of entire syllabus Discussion on examination pattern Discussion of doubts and problems of students
4-6-23 to 11-6-23	Preparatory Break

*Mukesh Kumari*

**Government College, Sector 9 Gurugram**

**Lesson Plan for 2022-2023 ( Even Semester)**

Name of Assistant Professor – Mukesh Kumari  
 Subject – Physics  
 Paper- Nuclear Physics

Class – B.Sc 3rd Year  
 Semester 6th  
 Session – Feb 2023 to June 2023

DATE	Topics
9-2-23 to 15-2-23	Nuclear mass and binding energy, systematics nuclear binding energy, nuclear stability, Nuclear size, spin, parity, statistics magnetic dipole moment, quadrupole moment (shape concept).
16-2-23 to 3-3-23	Nuclear stability, Nuclear size, spin, parity, statistics magnetic dipole moment, quadrupole moment (shape concept).
4-3-23 to 8-3-23	<b>Holi Break</b>
9-3-23 to 15-3-23	Determination of mass by Bain-Bridge, Bain-Bride and Jordan mass spectrograph. Determination of charge by Mosley law Determination of size of nuclei by Rutherford Back Scattering. Test 1
16-3-23 to 31-3-23	Interaction of heavy charged particles (Alpha particles), alpha disintegration and its theory Energy loss of heavy charged particle (idea of Bethe formula, no derivation). Energetics of alpha -decay. Range and straggling of alpha particles. Geiger-Nuttal law. Introduction of light charged particle (Beta-particle). Origin of continuous beta-spectrum (neutrino hypothesis) types of beta decay and energetics of beta decay. Energy loss of beta- particles (ionization), Range of electrons. absorption of beta-
1-4-23 to 15-4-23	Interaction of Gamma Ray. Nature of gamma rays, Energetics of gamma rays, 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.
16-4-23 to 30-4-23	Nuclear reactions, Elastic scattering, Inelastic scattering, Nuclear disintegration, photoneuclear reaction, Radiative capture, Direct reaction, heavy ion reactions and spallation Reactions, conservation laws. Q-value and reaction threshold.
1-5-23 to 15-5-23	Nuclear Reactors General aspects of Reactor design. Nuclear fission and fusion reactors (Principles, construction, working and use) Linear accelerator. Tandem accelerator, Cyclotron and Betatron accelerators.  Ionization chamber, proportional counter, G.M. counter detailed study, scintillation counter and semiconductor detector.
16-5-23 to 3-6-23	Ionization chamber, proportional counter, G.M. counter detailed study, scintillation counter and semiconductor detector.  Revision and Test and Assignment and presentation
4-6-23 to 11-6-23	<b>Preparatory break</b>

*Mukesh Kumari*

Lesson Plan (2022-23)

B.Sc. 1st Semester

**MECHANICS**

<b>Topics</b>	<b>Time Period</b>
Mechanics of single and system of particles, conservation of laws of linear momentum, angular momentum and mechanical energy Centre of mass and equation of motion, constrained motion, degrees of freedom Doubt Sessions	27 Oct-12 Nov.
Generalised coordinates, displacement, velocity acceleration, momentum, force and potential Hamilton's variational principle, Lagrange's equation of motion from Hamilton's Principle, Linear Harmonic oscillator, simple pendulum, Atwood's machine Doubt Sessions	14-30 Nov.
Rotation of Rigid body, moment of inertia, torque, angular momentum, kinetic energy of rotation. Theorems of perpendicular and parallel axes with proof Moment of inertia of solid sphere, hollow sphere, spherical shell, solid cylinder, hollow cylinder and solid bar of rectangular cross-section, Acceleration of a body rolling down on an inclined plane Doubt Sessions, Revision up to term brake.	1-30 Dec.

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Lesson Plan

B.Sc. 1st Semester

**ELECTRICITY AND MAGNETISM**

Topics	Time Period
<p>Mathematical Background : Scalars and Vectors, dot and cross product, Triple vector product, Scalar and Vector fields, Differentiation of a vector, Gradient of a scalar and its physical significance. Integration of a vector (line, surface and volume integral and their physical significance), Gauss's divergence theorem and Stock's theorem.</p> <p>Electrostatic Field: Derivation of electric field from potential as gradient, derivation of Laplace and Poisson equations. Electric flux, Gauss's Law and its application to spherical shell, uniformly charged infinite plane and uniformly charged straight wire, mechanical force of charged surface. Energy per unit volume.</p>	22 Aug.-15 Sep.
<p>Magnetostatics: Magnetic Induction, magnetic flux, solenoidal nature of Vector field of induction. Properties of B (i) Div. <math>B = 0</math> (ii) Curl B, Electronic theory of dia and para magnetism (Langevin's theory). Domain theory of ferromagnetism. Cycle of Magnetisation - Hysteresis (Energy dissipation, Hysteresis loss and importance of Hysteresis curve).</p>	15 Sep.-30 Sep.
<p>Electromagnetic Theory: Maxwell equation and their derivations, Displacement Current. Vector and scalar potentials, boundary conditions at interface between two different media, Propagation of electromagnetic wave (Basic idea, no derivation). Poynting vector and Poynting theorem.</p>	1 Oct.-21 Oct.
Revision and doubt sessions till exams.	






Lesson Plan (2022-23)

B.Sc. 2<sup>nd</sup> Semester

<b>ELECTRO MAGNETIC INDUCTION AND ELECTRONIC DEVICES</b>	
<b>Topics</b>	<b>Time Period</b>
Electromagnetic Induction : Growth and decay of current in a circuit with (a) Capacitance and resistance (b) resistance and inductance (c) Capacitance and inductance (d) Capacitance resistance and inductance.	6-11 Feb.
AC circuit analysis using complex variables with (a) capacitance and resistance, (b) resistance and inductance (c) capacitance and inductance (d) capacitance, inductance and resistance Series and parallel resonant circuit. Quality factor (Sharpness of resonance).	13-18 Feb.
Semiconductor Diodes: Energy bands in solids. Intrinsic and extrinsic semiconductor, Hall effect, P-N junction diode and their V-I characteristics. Zener and avalanche breakdown. Resistance of a diode, Light Emitting diodes (LED). Photo conduction in semiconductors, photodiode, Solar Cell.	20-28 Feb.
Diode Rectifiers: P-N junction half wave and full wave rectifier. Types of filter circuits (L and $\pi$ with theory). Zener diode as voltage regulator, simple regulated power supply. Transistors: Junction Transistors, Bipolar transistors, working of NPN and PNP transistors, Transistor connections (C-B, C-E, C-C mode), constants of transistor. Transistor characteristic curves (excluding h parameter analysis), advantage of C-B configuration. C.R.O. (Principle, construction and working in detail).	1-18 Mar.

  
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Lesson Plan

B.Sc. 2nd Semester

**PROPERTIES OF MATTER, KINETIC THEORY AND RELATIVITY**

<b>Topics</b>	<b>Time Period</b>
Properties of Matter (Elasticity): Elasticity, Hooke's law, Elastic constants and their relations, Poisson's ratio, torsion of cylinder and twisting couple. Bending of beam (bending moment and its magnitude) cantilevers, Centrally loaded beam.	1-22 April
Kinetic Theory of Gases: Assumptions of Kinetic Theory of gases, Law of equipartition of energy and its applications for specific heats of gases, Maxwell distribution of speeds and velocities (derivation required), Experimental verification of Maxwell's Law of speed distribution: most probable speed, average and r.m.s. speed, mean free path. Transport of energy and momentum, diffusion of gases. Brownian motion (qualitative), Real gases, Van der Waal's equation.	24-29 April, 1-13 May
Theory of Relativity: Reference systems, inertial frames, Galilean invariance and conservation laws, Newtonian relativity principle, Michelson - Morley experiment: Search for ether. Lorentz transformations length contraction, time dilation, velocity addition theorem, variation of mass with velocity and mass energy equivalence.	15-31 May
Revision and doubt classes till exams.	

<p>Transistor Amplifiers: Transistor biasing, methods of Transistor biasing and stabilization. D.C. load line, common-base, and common-emitter transistor biasing. Common-base, common-emitter amplifiers. Classification of amplifiers. Resistance-capacitance (R-C) coupled amplifier (two stage; concept of band width, no derivation). Feed-back in amplifiers, advantage of negative feedback Emitter follower.</p>	<p>20-25 Mar.</p>
<p>Oscillators: Oscillators, Principle of Oscillation, Classification of Oscillator. Condition for self sustained oscillation: Barkhausen criterion for oscillations. Tuned collector common emitter oscillator. Hartley oscillator. Colpitt's oscillator. Doubt sessions.</p>	<p>27-31 Mar.</p>

  
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Lesson Plan (2022-23)

B.Sc. 6th Semester

**Atomic Molecular And Laser Physics**

Topics	Time Period
Vector atom model, quantum numbers associated with vector atom model, penetrating and non- penetrating orbits (qualitative description), spectral lines in different series of alkali spectra	6 <sup>th</sup> feb-18 <sup>th</sup> feb
spin orbit interaction and doublet term separation LS or Russel-Saunders Coupling, jj coupling (expressions for interaction energies for LS and jj coupling required).	20 <sup>th</sup> feb-7 <sup>th</sup> march
Zeeman effect (normal and Anomalous) Zeeman pattern of D 1 and D2 lines of Na-atom, Paschen, Back effect of a single valence electron system. Weak field Stark effect of Hydrogen atom	8 <sup>th</sup> march-18 <sup>th</sup> march
Discrete set of electronic energies of molecules, quantisation of Vibrational and rotational energies Raman effect (Quantitative description) Stoke's and anti Stoke's lines.	20 <sup>th</sup> march-31 <sup>st</sup> march
ASSIGNMENT Main features of a laser : Directionality, high intensity, high degree of coherence, spatial and temporal coherence,	1 <sup>st</sup> april-15 <sup>th</sup> april
Einstein's coefficients and possibility of amplification, momentum transfer, life time of a level, kinetics of optical absorption.	17 <sup>th</sup> april-29 <sup>th</sup> april

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Threshold condition for laser emission, Laser pumping, He-Ne laser and RUBY laser (Principle, Construction and Working).  TEST	1 <sup>st</sup> may-13 <sup>th</sup> may
Applications of laser in the field of medicine and industry Revision and doubt classes	15 <sup>th</sup> may-30 <sup>th</sup> may

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Lesson Plan

B.Sc.4<sup>th</sup> Semester

Statistical Mechanics	
Topics	Time Period
Probability, some probability considerations, combinations possessing maximum probability,	6 <sup>th</sup> feb-18 <sup>th</sup> feb

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<p>Revision  combinations possessing minimum probability, distribution of molecules in two boxes. Case with weightage (general).</p>	<p>20<sup>th</sup> feb-7<sup>th</sup> march</p>
<p>Test  Phase space, microstates and macrostates, statistical fluctuations constraints and accessible States Thermodynamical probability.</p>	<p>8<sup>th</sup> march-18<sup>th</sup> march</p>
<p>Assignment.  Introduction and Postulates of Statistical Physics.</p>	<p>20<sup>th</sup> march-31<sup>st</sup> march</p>
<p>Division of Phase space into cells, Condition of equilibrium between two system in thermal contact. <math>\beta</math>-Parameter. Entropy and Probability, Boltzman's distribution law.</p>	<p>1<sup>st</sup> apri-15<sup>th</sup> april</p>
<p>Evaluation of A and b. Bose-Einstein statistics, Application of B.E. Statistics to Plancks's radiation law, B.E. gas.</p>	<p>17<sup>th</sup> april-29<sup>th</sup> april</p>
<p>Fermi-Dirac statistics, M.B. Law as limiting case of B.E. Degeneracy and B.E., Condensation. F.D. Gas, electron gas in metals. Zero point energy. <math>\beta t</math></p>	<p>1<sup>st</sup> may-13<sup>th</sup> may</p>

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Specific heat of metals and its solution.

15<sup>th</sup> may-30<sup>th</sup>  
may

Revision and doubt sessions till exams.

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Lesson Plan (2022-23)

B.Sc. 3<sup>rd</sup> Semester

**Computer programming and thermodynamics**

5

Topics	Time Period
Computer Programming : Computer organisation, 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.	1 <sup>st</sup> aug-15 <sup>th</sup> aug.
input and output statements, Formats, I.F. DO and GO TO statements, Dimension arrays statement function and function subprogram.	16 <sup>th</sup> aug-31 <sup>st</sup> aug
Thermodynamics-I : Second law of thermodynamics, Carnot theorem, Absolute scale of temperature, Absolute Zero. Entropy, show that $dQ/T=0$ ,	1 <sup>st</sup> sep- 15 <sup>th</sup> sep
T-S diagram Nernst heat law, Joule's free expansion, Joule Thomson (Porous plug) experiment. Joule - Thomson effect. Liquefaction of gases. Air pollution due to internal combustion Engine.	16 <sup>th</sup> sep-31 <sup>st</sup> oct
Thermodynamics-II : Derivation of Clausius - Claperyon latent heat equation. Phase diagram and triple point of a substance. Development of Maxwell thermodynamical relations.	1 <sup>st</sup> nov- 15 <sup>th</sup> nov

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6

Application of Maxwell relations in the derivation of relations between entropy, specific heats and thermodynamic variables.	16 <sup>th</sup> nov- 30 <sup>th</sup> nov
Thermodynamic functions : internal energy (U), Helmholtz function (F), Enthalpy (H), Gibbs function (G) and the relations between them.	1 <sup>st</sup> dec- 15 <sup>th</sup> dec
Relation between thermodynamical functions. Doubt and revision classes	16 Dec- 30 Dec

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Lesson Plan

B.Sc 5th. Semester



**Solid state physics**

<b>Solid state physics</b>	
<b>Topics</b>	<b>Time Period</b>

Crystalline and gassy forms, liquid crystals. Crystal structure, periodicity, lattice and basis, crystal translational vectors and axes.	1 <sup>st</sup> aug- 15 <sup>th</sup> aug
Unit cell and primitive cell, Wigner Seitz primitive Cell, symmetry operations for a two dimensional crystal, Bravais lattices in two and three dimensions. Unit-II crystal planes and Miller indices,	16 <sup>th</sup> aug- 31 <sup>st</sup> aug
Assignment Introduction of crystal planes and miller indices.	1 <sup>st</sup> sep- 15 <sup>th</sup> sep
Test Interplaner spacing, Crystal structures of Zinc sulphide, Sodium Chloride and diamond.	16 <sup>th</sup> sep- 30 <sup>th</sup> oct
X-ray diffraction, Bragg's Law and experimental x-ray diffraction methods, K-space.	1 <sup>st</sup> nov- 15 <sup>th</sup> nov
Reciprocal lattice and its physical significance Reciprocal lattice vectors, reciprocal lattice to a simple cubic lattice, b.c.c and f.c.c.	16 <sup>th</sup> nov. 30 <sup>th</sup> nov

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Assignment Specific heat : Specific heat of solids, Einstein's theory of specific heat.	1 <sup>st</sup> dec- 15 <sup>th</sup> dec
Debye' model of specific heat of solids. Revision and doubt classes	16 <sup>th</sup> dec- 30 <sup>th</sup> dec

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B.Sc. Semester

Topics	Time Period
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**Lesson Plan: BA 1<sup>st</sup> semester 2022-23**  
**INTRODUCTION TO PSYCHOLOGY**

Name of Associate/Assistant Professor: **Sonika Dangl**

<b>Dates</b>	<b>Content</b>
22.08.2022- 15.09.2022	<b>Psychology: History, Emergence as Science</b> <b>Subject matter. Methods of Psychology: Experimental, Observation, Survey</b>
16.09.2022- 05.10.2022	<b>Sensory Processes: Visual, Auditory – Structure and Functions of Eye and Ear.</b>
06.10.2022- 25.10.2022	<b>Perception: Nature, Perception of form – Figure and ground, Perceptual Organization, Depth Perception–cues.</b>
26.10.2022- 15.11.2022	<b>Emotion: Nature, Bodily changes. Theories of Emotion: James-Lange, Cannon-Bard and Schachter–Singer. Motivation: Nature, Biological and Psychological Motives</b>
16.11.2022- 05.12.2022	<b>Personality: Nature, Determinants of personality, Type and Trait approach. Intelligence: Nature, Theories: Spearman, Thurstone, and Cattell.</b>
06.12.2022- till exam	<b>Revision</b>

Lesson Plan: BA 2<sup>nd</sup> semester 2022-23

EXPERIMENTAL PSYCHOLOGY

Name of Associate/Assistant Professor: Sonika Dangl

Dates	Content
06.02.2023- 21.02.2023	Attention: Nature, Characteristics, and types. Psychophysics: Problems of Psychophysics and Methods (Classical). Learning: Definition, Factors affecting, Trial and error learning, Insight learning, Classical and Operant conditioning
22.02.2023- 13.03.2023	Learning: Definition, Factors affecting, Trial and error learning, Insight learning, Classical and Operant conditioning.
14.03.2023- 31.03.2023	Memory: Definition, Stages, STM and LTM – Methods to Study Memory. Forgetting: Factors leading to forgetting, Pneomonics
01.04.2023- 15.04.2023	Problem solving: Stages of problem solving, Convergent and Divergent thinking.
16.04.2023- 30.04.2023	Statistics: Frequency Distribution, Graphical presentation of data, Measures of central tendencies.
01.05.2023- till exam	Revision

Lesson Plan: BA 3<sup>rd</sup> semester 2022-23

Social Psychology

Name of Associate/Assistant Professor: Sangeeta

Dates	Content
22.08.2022- 15.09.2022	Social Psychology-Introduction, Nature and subject matter of Social Psychology, Relationship of Social Psychology with other Science, Sociometric- methods introduction Techniques of Sociometric analysis
16.09.2022- 05.10.2022	Evaluation Nature of Socialization, Types of Socialization, Processes of Socialization, Content and outcome of socialization, Social Group: Nature Characteristics of social Group, General Functions of Group, Nature of Social Norms, Characteristics of Social Norms Test and Assignment submission
06.10.2022- 25.10.2022	Formation of Social Norms, Function of Group Norms, Leadership- Meaning & Definition Style of Leadership, Function of Leader Theories of Leadership, Theories of Leadership Nature of Attitudes, Components of Social Attitude, Formation and Development of Social Attitude
26.10.2022- 15.11.2022	Types of Attitude change, Attitude Assessment, Nature of Prejudice, Types of Prejudice, Development of Prejudice Main effects of Prejudice Methods to reduce and eliminate Prejudice, Meaning and Definition of Stereotype Test and Assignment submission
16.11.2022- 05.12.2022	Determinants of Stereotype Significance of Stereotype Nature of Prosocial Behaviour Cognitive Model
06.12.2022- till exam	Determinants of Helping Behaviour, Theoretical Explanation of Helping Behaviour Co-operation Test: Stereotype Assignment: Prosocial Behaviour

Sangeeta

Lesson Plan: BA 4<sup>th</sup> semester 2022-23

Developmental Psychology

Name of Associate/Assistant Professor: Sangeeta

Dates	Content
06.02.2023- 21.02.2023	Developmental Psychology Different branches of Psychology Application of Developmental Psychology Historical antecedents of Developmental Psychology Advantage of Developmental Psychology
22.02.2023- 13.03.2023	Developmental Questions, Paradigm issues Nature vs. Nurture Stability vs. Change Continuity vs. Discontinuity Human Development Difference between Growth and Development, Concept from psychology perspective Human Development Concept of Human Development, Principal of Human Development.
14.03.2023- 31.03.2023	Theories of Development, Freud Stages of Development Factors in human development, Biological Factors Social Factors Cultural Factors Environment Factors Psycho social Factors Test: Factors in human development Assignment: Define Human Development and principles of Development
01.04.2023- 15.04.2023	Childhood overall introduction Infancy: Hazards Different theories of Child Development Adolescents overall adjustment Adolescents Characteristics Problems of Adolescents.
16.04.2023- 30.04.2023	Adulthood: Introduction Early adulthood late adulthood aging-Changing patterns Difference between late adulthood and aging-Changing patterns Adulthood Problem June
01.05.2023-till exam	Basic of Statistics Basic of Mean, Median, Mode Measures of variability Quartile deviation Standard Deviation and Numerical Test: Statistics numerical questions Basic of Statistics Basic of Mean, Median, Mode Measures of variability Quartile deviation Standard Deviation and Numerical Test and Assignment submission Test: Statistics numerical questions Assignment: What do you understand Assignment: What do you understand by

Sangeeta

Lesson Plan: BA 5<sup>th</sup> semester 2022-23

**PSYCHOPATHOLOGY**

Name of Associate/Assistant Professor: Satyam Bhambhu

Dates	Content
22.08.2022-15.09.2022	Psychopathology-Introduction, Psychopathology-History, The Emergence of Scientific Theories & Therapies, Concept of Normality & Abnormality
16.09.2022-05.10.2022	Statistical Criteria, Cultural or social criteria, Characteristics of Normal Personality, Models of Psychopathology, Biological Model, Psychodynamic model
06.10.2022-25.10.2022	Motivational Elements-Dynamics, Developmental Model, Behavioural Model, Cognitive Model, Humanistic Model, Test and Assignment submission Test: Concept of Normality & Abnormality Assignment: Models of Psychopathology
26.10.2022-15.11.2022	Classification of Psychopathology, DSM-IV-TR, Axis -III, Psychosocial and Environmental problems, Nature and need of Assessment, Case History Method, Formulation of the case, Recommendations and Predictions, Psychological Test MMPI, WAT
16.11.2022-05.12.2022	Anxiety -based Disorders-Neurosis, General Symptoms of Psychoneurosis, Phobic disorders, Obsessive-Compulsive Disorder, Substance/Drug Abuse, General Causes of Drug Intake, Consequences of Drug Abuse, Rehabilitation, Revision of substance/ Drug Abuse, Test and Assignment submission Test: Anxiety -based Disorders Assignment: Psychological Test
06.12.2022-till exam	Mood Disorders-Introduction, Depressive Disorders, Etiology of Depressive Disorders, Bipolar Disorders-Etiology and Treatment, Schizophrenia-Meaning & Definition, Etiology, Treatment, Psychosomatic Disorders, Mental Retardation, Clinical Intervention, Test and Assignment submission Test: Mood Disorders Assignment: What do you understand by Schizophrenia?





Lesson Plan: BA 6<sup>th</sup> semester 2022-23

APPLIED PSYCHOLOGY

Name of Associate/Assistant Professor: Satyam Bhamblu and Sangeeta

Dates	Content
06.02.2023- 21.02.2023	Applied Psychology-Introduction, Applied Psychology-History, Applied Psychology-fields and career in psychology, Revision of Applied Psychology-Introduction, History, fields and career in psychology, Organizational Psychology- Nature, Organizational psychology-scope, Objectives and development of Organizational Psychology, Revision of Organizational Psychology,
22.02.2023- 13.03.2023	Guidance-introduction, Guidance-objectives, Types of Guidance, Organization Guidance Programme, Revision of Guidance, <b>Test and Assignment submission</b> <b>Test:</b> Organizational Psychology <b>Assignment:</b> Applied Psychology-Introduction, History, fields and career in psychology
14.03.2023- 31.03.2023	Counselling-Need, Principles of Counselling, Special areas of Counselling, Types of Counselling, Counselling Sessions, Revision of Counselling, Health Psychology- Brief History, Meaning and Definition of Health Psychology, Model of Health Psychology- Bio-psychological Model, Division of Health Psychology, Scope of Health Psychology
01.04.2023- 15.04.2023	Objective of Health Psychology, Concept of Health, Concept of illness, Meaning & Definition of Stress, Coping, Coping Strategies, Resource affecting Coping, Lifestyle & Health, Psychological factors in Physical illness
16.04.2023- 30.04.2023	<b>Test and Assignment submission</b> <b>Test:</b> Stress <b>Assignment:</b> Health Psychology Forensic Psychology-Meaning & Definition, Forensic Psychology Vs Clinical Psychology, Psychology & Law
01.05.2023-till exam	Eyewitness Memory, Factors influencing Accuracy of Eyewitness, Techniques to improve Accuracy of Eyewitness, Statistics: Correlation-Meaning, Rank Difference, Product Moment Method <b>Test and Assignment submission</b> <b>Test:</b> Eyewitness Memory <b>Assignment:</b> Correlation

  
Sangeeta

**Government College, Sector 9 Gurugram**

**Department of sociology**

**Lesson Plan for 2022-2023 ( Odd Semester)**

Name of Assistant Professor – Monika Schrrawat  
Subject – Sociology  
Paper-Methods In social Research

Class – B.A. 2nd Year  
Semester – 3rd  
Session – August 2022 –January 2023

DATE	B.A. 2nd year
22-8-22 to 31-8-22	Nature, Definition and Steps of Social Research;
1-9-22 to 15-9-22	Objectivity and Subjectivity in Social Research
16-9-22 to 30-9-22	Nature & Characteristics of observation, Interview
1-10-22 to 15-10-22	Case Study, Content Analysis
16-10-22 to 21-10-22	Social Survey - Their Importance in Social Research Assignment -1
22-10-22 to 26-10-22	<b>DIWALI BREAK</b>
27-10-22 to 31-10-22	Nature & Characteristics; Research Design,
1-11-22 to 15-11-22	Class discussion on major social research and their impact on society in last few years
16-11-22 to 30-11-22	Sampling and Hypothesis : Their Nature, Types and Importance of Social Research
1-12-22 to 15-12-22	Classification and Tabulation of Data Measures of Central Tendency, Mean, Mode & Median; Use of Computer in Data Analysis
16-12-22 to 30-12-22	Test and revision
31-12-22 to 8-01-23	Preparatory break
9-1-23 to 29-1-23	Examination
30-1-23 to 5-2-23	<b>WINTER BREAK</b>

*Monika*

**Government College, Sector 9 Gurugram**

Name of Assistant Professor – Monika Schrawat  
Subject – Sociology  
Paper-Foundation of Social Thought

Class – B.A. 3rd Year  
Semester – 5th  
Session – August 2022 –January 2023

DATE	B.A. 3rd year
22-8-22 to 31-8-22	Comte's Law of three stages, Positivism
1-9-22 to 15-9-22	Social Static & Dynamics
16-9-22 to 30-9-22	Evolutionism: Spencer's Evolutionary Approach
1-10-22 to 15-10-22	Durkheim's Concept of Social Fact, Rules and the procedures for the study of Social Phenomena;
16-10-22 to 21-10-22	Diwali Break
22-10-22 to 26-10-22	Radcliffe Brown's Structural-Functional Approach
27-10-22 to 31-10-22	Test and Revision of Unit 1 and 2 , Assignment 1
1-11-22 to 15-11- 22	Marx's concept of Dialectical Historical Materialism Class & Class Conflict,
16-11-22 to 30-11-22	Coser's Approach of Social Conflict
1-12-22 to 15-12-22	Weber's Interpretative Sociology, G.H. Mead
16-12-22 to 30-12-22	Assignment and presentation Test and revision of entire syllabus ,Discussion on examination pattern
31-12-22 to 8-01-23	Preparatory Break
9-1-23 to 29-1-23	Examination
30-1-23to 5-2-23	Winter break

*Monika*

**Government College, Sector 9 Gurugram**

Name of Assistant Professor – Monika Schrawat  
Subject – Sociology  
Paper-Classical sociological Thinker

Class – M.A 1<sup>st</sup> Year  
Semester – 1st  
Session – September 2022 to Jan 2023

DATE	M.A 1 <sup>st</sup> year
12-9-22 to 30-9-22	Auguste Comte – Positivism, Enlightenment and Conservative Reaction; Contribution to the subject matter of Sociology; Social Static and Social Dynamics.
1-10-22 to 15-10-22	Emile Durkheim: Division of Labour in the Capitalist Society, Mechanical and Organic Solidarities;
16-10-22 to 21-10-22	Theory of Suicide; Theory of Religion: Sacred and Profane. Contribution to the Methodology of Sociology: Concept of Social Fact.
22-10-22 to 26-10-22	Diwali Break
27-10-22 to 31-10-22	Karl Marx : Marx's Theory of Social Change; Dialectical Materialism as a Perspective of Explaining,
1-11-22 to 15-11-22	Transformation of Human Society through Different Stages; Theory of Capitalist Development, Class and Class Conflict; Alienation and its Social Implications.
16-11-22 to 30-11-22	Max Weber: Theory of Social Action and its types; Analysis of modern capitalism; Protestant ethics, status, wealth & power:
1-12-22 to 15-12-22	Authority and its types. Theory of Bureaucracy. Contribution to the Methodology of Social Sciences: Value Neutrality and Ideal Types.
16-12-22 to 30-12-22	Assignment and presentation Test and revision of entire syllabus ,Discussion on examination pattern
31-12-22 to 8-01-23	Preparatory Break
9-1-23 to 29-1-23	Examination
30-1-23 to 5-2-23	Winter break

*Monika*

**Government College, Sector 9 Gurugram**

Name of Assistant Professor – Monika Sehrawal  
Subject – Sociology  
Paper-Indian Society: structure and change

Class – M.A 1st Year  
Semester – 1<sup>st</sup>  
Session – Sep 2022-Jan 2023

DATE	M.A 1 <sup>st</sup> year
12-9-22 to 30-9-22	Composition of Indian Society: Indian Social Structure: Caste, Family, and Village Community. Unity in Diversity: Cultural, Linguistic, Religious, Tribal and Constitutional.
1-10-22 to 15-10-22	Social Stratification: Social Differentiation, Hierarchy and Inequality.
16-10-22 to 21-10-22	Forms of Stratification: Caste, Class and Gender.
22-10-22 to 26-10-22	Diwali Break
27-10-22 to 31-10-22	Social Change: Meaning of Social Change, Continuity and Change
1-11-22 to 15-11-22	Processes of Change: Sanskritization, Modernization and Globalization
16-11-22 to 30-11-22	Contemporary Issues: Poverty: Measurement, Causes and Remedies. Violence against Women:
1-12-22 to 15-12-22	Nature of Violence, Its Magnitude and Implications on Women. Communalism: Communal Violence, Communalism in India.
16-12-22 to 30-12-22	Assignment and presentation Test and revision of entire syllabus ,Discussion on examination pattern
31-12-22 to 8-01-23	Preparatory Break
9-1-23 to 29-1-23	Examination
30-1-23to 5-2-23	Winter break

*Thika*

Government College, Sector 9 Gurugram

Name of Assistant Professor – Monika sehrawat  
Subject – Sociology  
Paper- Research methods and techniques-1  
2023

Class – M.A 1st Year  
Semester – 1<sup>st</sup>  
Session – September 2022 to January

DATE	M.A 1 <sup>st</sup> Year
12-9-22 to 30-9-22	Meaning and Nature of Social Research: Steps of Social Research, Scientific Method
1-10-22 to 15-10-22	Problems in the Study of Social Phenomenon: Objectivity and subjectivity, fact and value.
16-10-22 to 21-10-22	Types of Research Design: Exploratory, Descriptive and Experimental
22-10-22 to 26-10-22	Diwali Break
27-10-22 to 31-10-22	Hypothesis; Sampling: Meaning and Types
1-11-22 to 15-11-22	Survey, Observation, Questionnaire, Schedule and Interview
16-11-22 to 30-11-22	Field Work Approach, Case Study
1-12-22 to 15-12-22	Content Analysis, Life History, Report Writing.
16-12-22 to 30-12-22	Assignment and presentation Test and revision of entire syllabus ,Discussion on examination pattern
31-12-22 to 8-01-23	Preparatory Break
9-1-23 to 29-1-23	Examination
30-1-23to 5-2-23	Winter break

DK9

**Government College, Sector 9 Gurugram**

Name of Assistant Professor – Monika Schrawat  
Subject – Sociology  
Paper-Indian Society

Class – B.A. 2nd Year  
Semester – 4th  
Session – Feb 2023 to June 2023

DATE	B.A. 2nd year
6-2-23 to 15-2-23	<b>Evolution of Indian Society:</b> Traditional view of Indian Society; Factors Promoting, Unity and Diversity in India; India as Pluralistic Society, Multi-Ethnic; Multi-Religious; Cultural and Lingual
16-2-23 to 3-3-23	<b>Indian Social Institutions:</b> Kinship, Family, Marriage;
4-3-23 to 8-3-23	Holi Vacation
9-3-23 to 15-3-23	Caste and its Changing Dimensions.
16-3-23 to 31-3-23	<b>Processes of Social Change in India:</b> Sanskritization, Westernization, Parochialization and Universalization
1-4-23 to 15-4-23	<b>Social Issues and Problems:</b> Gender Discrimination, Secularism and Religious
16-4-23 to 30-4-23	Minorities, Problems of Dalits, Women and OBC and Affirmative Actions
1-5-23 to 15-5-23	Assignments and Test
16-5-23 to 3-6-23	Revision of entire syllabus Discussion on examination pattern Discussion of doubts and problems of students
4-6-23 to 11-6-23	Preparatory Break

*Monika*

**Government College, Sector 9 Gurugram**

Name of Assistant Professor – Monika Sehrawat  
Subject – Sociology  
Paper-Rural Society: Structure and Change

Class – B.A. 3rd Year  
Semester – 6th  
Session – Feb 2023 to June 2023

DATE	B.A. 3rd year
6-2-23 to 15-2-23	<b>Introduction to Rural Sociology:</b> Origin of Rural Sociology, Nature, Subject Matter and Importance of the Study of Rural Sociology
16-2-23 to 3-3-23	<b>Rural Social Structure:</b> Caste and Class in Rural Set Up
4-3-23 to 8-3-23	Holi Break
9-3-23 to 15-3-23	Inter Caste Relations and Jajmani System, Rural Family and Changing pattern
16-3-23 to 31-3-23	<b>Rural Economy:</b> Land Tenure, Land Reforms, Green Revolution and Its Impact
1-4-23 to 15-4-23	Bonded and Migrant Labourers, Trends of Change in Rural Society
16-4-23 to 30-4-23	<b>Rural Political Structure:</b> Traditional Caste Panchayats, Panchayat before and after 73rd Amendment,
1-5-23 to 15-5-23	New Panchayati Raj and Empowerment of Women
16-5-23 to 3-6-23	Revision and Test Assignment and presentation
4-6-23 to 11-6-23	Preparatory break

Monika



**Government College, Sector 9 Gurugram**

Name of Assistant Professor – Monika Sehrawat  
Subject – Sociology  
Classical Sociological Theories

Class – M.A 1<sup>st</sup> year  
Semester – 2<sup>nd</sup>  
Session – Feb 2023 to June 2023

DATE	M.A 1 <sup>st</sup> year
6-2-23 to 15-2-23	Rise of Classical Sociological Theory; Positivism: Comte's Law of three stages;
16-2-23 to 3-3-23	Evolutionism: H.Spencer' Evolutionary Doctrine ; Conflict : Marx's Dialectical Materialism.
4-3-23 to 8-3-23	Holi Break
9-3-23 to 15-3 23	Functional Theory: Malinowski's Functionalist Doctrine; Durkheim's Division of Labour; Parsons' Social System.
16-3-23 to 31-3 23	Structural Theory : A.R. Radcliffe Brown : The Concept of Social Structure ;
1-4-23 to 15-4-23	S.F. Nadel : The Problems of Role Analysis ; Levi-strauss : Social Structure.
16-4-23 to 30-4 - 23	Interactionist Theory : M. Weber : Typology of Social Action ;
1-5-23 to 15-5-23	V. Pareto's Typology of Social Conduct : Residue and Derivations ; G.H.Mead's Mind, Self and Society.
16-5-23 to 3-6-23	Revision and Test Assignment and presentation
4-6-23 to 11-6 23	Preparatory break

*Monika*

## Lesson Plan (2022-23)

Class : M A 2<sup>nd</sup> Sem

Sub : Social Process and Social Change

Week -1

Socialization as a social process, its nature meaning and forms

Week - 2

Re- Socialization, anticipatory Socialization

Week - 3

Adult Socialization, stages of Socialization, Agencies of Socialization

Week - 4

Theories of Socialization, Social stratification, meaning and nature of social differentiation

Week - 5

Hierarchy and inequality, forms of stratification, Caste class, gender and ethnic

Week - 6

Social mobility, Meaning, nature and types

Week - 7

Horizontal and vertical social mobility

Week - 8

Factors of Social mobility

Week - 9

Social Change, Concept and types, evolution diffusion Progress, Development

Week - 10

Revolution, transformation, change in structure and change of structure

Week - 11

Theories of social change, dialectical and cyclical



**Lesson Plan (2022-23)**

**Class : M A 1<sup>st</sup> Sem**

**Sub : Social Anthropology**

- Week -1**  
Introduction to Social Anthropology
- Week – 2**  
Development of Social Anthropology in India
- Week – 3**  
Nature, Definition and Scope of Social Anthropology
- Week – 4**  
Social Anthropology and its relationship with Sociology
- Week – 5**  
Social Anthropology and its relationship with History, Economics and Psychology
- Week – 6**  
Theoretical orientation and Method, Functionalism (Radcliff Brown and B Malinowski)
- Week – 7**  
Structuralism Field work, Approach in Social Anthropology
- Week – 8**  
Concept and Social Institutions, Culture, Clan, Caste, Ethnicity and Race, Family, Kinship, Marriage and Religious Institutions
- Week – 9**  
Tribal Society in India
- Week – 10**  
Definition of Tribes, Problems of Tribal People
- Week – 11**  
Tribal Movements in India, Social and Cultural Change in Tribal India



## **Sociology**

### **B.A First semester**

#### **Lesson plan (Session July 2022- December 2023)**

**Ravi Deshwal**

**Paper Name- Basic concepts in sociology**

**Courses- B.A Economics Hons 1st Sem**

**Session- 2022-23**

#### **July**

Introduction of subject

#### **August**

Concept of Socio-Meaning, Nature, Scope and Significance:

Nature definition and scope of sociology, relationship with history economics political science and anthropology and psychology.

#### **September**

**Social structure status and roll society community association norms and values its nature and characteristics**

#### **October**

**Social groups and processes primary secondary and reference group its nature and types integration corporation and conflict its nature definitions and types**

#### **November**

**Social institutions marriage family and kinship religion its functions and characteristics**

Revision/oral test/Extra activities



**Sociology**

**B.A third semester**

**Lesson plan (Session- December 2022-April 2023)**

**Ravi Deshwal**

**Paper Name- Media and Society**

**Courses- BJMC 3rd Sem**

**Session- 2022-23**

**January**

**Nature definition of media and society**

**February**

**Characteristics of media and society**

**March**

**Relation between media and society how to internet with each other**

**April**

**Concept and bases of media and society**

**Revision/oral test/Extra activities**



**Lesson Plan (2022-23)**

**Class : M A 1<sup>st</sup> Sem**

**Sub : Introduction to Sociology**

**Week -1**

**Nature and Definition of Sociology**

**Week – 2**

**Sociological Perspective, Evolution and Humanistic**

**Week – 3**

**Basic concept, Society, Social Structure, Community**

**Week – 4**

**Institution Association culture, norms and values**

**Week – 5**

**Status and Role, their interrelation, multiple role sets, status sets, status sequence, Role conflict**

**Week – 6**

**Social Groups and processes, meaning of social groups, primary – secondary, formal-informal**

**Week – 7**

**Reference Groups cooperation competition and conflict**

**Week – 8**

**Social institutions marriage and Family**

**Week – 9**

**Education**

**Week – 10**

**Economy**

**Week – 11**

**Polity and Religion**



## **Sociology**

**B.A First semester**

**Lesson plan (Session July 2022- December 2023)**

**Ravi Deshwal**

**Paper Name- Basic concepts in sociology**

**Courses- B.A pass course 1st Sem**

**Session- 2022-23**

**July**

Introduction of subject

**August**

Concept of Socioy-Meaning, Nature, Scope and Significance:

Nature definition and scope of sociology, relationship with history economics political science and anthropology and psychology.

**September**

**Social structure status and roll society community association norms and values its nature and characteristics**

**October**

**Social groups and processes primary secondary and reference group its nature and types  
Integration corporation and conflict its nature definitions and types**

**November**

**Social institutions marriage family and kinship religion its functions and characteristics**

Revision/oral test/Extra activities



राजकीय महाविद्यालय, सेक्टर १ गुरुग्राम

हिंदी विभाग

अध्यापन योजना: २०२२-२३

अध्ययक प्राध्यापिका का नाम: पूजा सिंहकला : बी.ए. प्रथम वर्ष

विषय का नाम : हिंदी (अतिरिक्त)

सेमेस्टर - प्रथम

सत्र - अगस्त २०२२ - जनवरी २०२३

दिनांक-	
22-8-22 to 31-8-22	1-कबीर- कविता एवं व्याख्या, साहित्यिक परिचय, सम्बंधित प्रश्नोत्तर
1-9-22 to 15-9-22	2- सुरदास- कविता एवं व्याख्या, साहित्यिक परिचय, सम्बंधित प्रश्नोत्तर
16-9-22 to 30-9-22	3- तुलसीदास-कविता एवं व्याख्या, साहित्यिक परिचय, सम्बंधित प्रश्नोत्तर 4-मीराबाई-कविता एवं व्याख्या, साहित्यिक परिचय, सम्बंधित प्रश्नोत्तर
1-10-22 to 15-10-22	5- बिहारी-कविता एवं व्याख्या, साहित्यिक परिचय, सम्बंधित प्रश्नोत्तर 6-घनानंद-कविता एवं व्याख्या, साहित्यिक परिचय, सम्बंधित प्रश्नोत्तर अधिन्यास पत्र - १
16-10-22 to 21-10-22	दिवाली की छुट्टियां
22-10-22 to 26-10-22	7-रसखान-कविता एवं व्याख्या, साहित्यिक परिचय, सम्बंधित प्रश्नोत्तर
27-10-22 to 31-10-22	हिन्दी साहित्य इतिहास लेखन की परम्परा आदिकाल का नामकरण
1-11-22 to 15-11- 22	आदिकालीन साहित्य की सामान्य प्रवृत्तियां रासोकाव्य परम्परा: संक्षिप्त परिचय
16-11-22 to 30-11-22	काव्य के तत्व

Pooja Singh



	<p>रस के भेद</p> <p>अलंकार- अनुप्रास श्लेष, यमक, रूपक, अतिशयोक्ति, मानवीकरण, अन्योक्ति समासोक्ति</p>
1-12-22 to 15-12-22	<p>छंद- दोहा, चौपाई, सोरठा, बरवै, कुंडलियाँ, छप्पय, कवित्त, घनाक्षरी</p> <p>शब्दशक्ति- अविधा, लक्षणा, व्यंजना</p> <p>काव्यगुण- प्रसाद, माधुर्य, ओज</p>
16-12-22 to 30-12-22	अधिन्यास पत्र - २ , कक्षापरिक्षण, पुनरावृत्ति
31-12-22 to 8-01-23	परीक्षा से पूर्व तैयारी क लिए दिया गया अधकाश
9-1-23 to 29-1-23	परीक्षा
30-1-23 to 5-2-23	सर्दों की छुट्टिया

Raja Singh

राजकीय महाविद्यालय, सेक्टर ९ गुरुग्राम

हिंदी विभाग

अध्यापन योजना: २०२२-२३

सहायक प्राध्यापिका का नाम: पूजा सिंह/कक्षा : बी.ए. द्वितीय वर्ष

विषय का नाम : हिंदी (अभियांत्रिकी)

सेमेस्टर - तृतीय

सत्र - अगस्त २०२२ - जनवरी २०२३

दिनांक-	
22-8-22 to 31-8-22	आधुनिक हिन्दी कविता 1-अपोंधा सिंह उपाध्याय हरिऔध- पवनदूती कविता एवं व्याख्या, साहित्यिक परिचय, प्रश्नोत्तर
1-9-22 to 15-9-22	2- माथिलीशरज गुप्त- जयद्रथ वध, भारत भारती, संदेश यहाँ मैं नहीं स्वर्ग का लाया, कविता एवं व्याख्या, साहित्यिक परिचय, संबंधित प्रश्नोत्तर
16-9-22 to 30-9-22	3-जयशंकर प्रसाद - आनंद सर्ग (कामायनी), आँसू कविता एवं व्याख्या, साहित्यिक परिचय, प्रश्नोत्तर 4- सूर्यकान्त त्रिपाठी निराला- विधवा, बादल राग, जागो फिर एक बार, तोड़ती पत्थर कविता एवं व्याख्या, साहित्यिक परिचय, प्रश्नोत्तर
1-10-22 to 15-10-22	5- महादेवी वर्मा- कौन तुम मेरे हृदय में, दुःख की बदली, वे मुस्काने फूल नहीं, कह दे माँ क्या अब देखूँ। कविता एवं व्याख्या, साहित्यिक परिचय, प्रश्नोत्तर 6- रामधारी सिंह दिनकर- कुरुक्षेत्र कविता एवं व्याख्या, साहित्यिक परिचय, प्रश्नोत्तर अधिन्यास पत्र - १
16-10-22 to 21-10-22	दिवाली की छुट्टियाँ

Pooja Singh

	<p>रीतिबद्ध काव्यधारा की प्रवृत्तियां</p> <p>रीतिसिद्ध काव्यधारा की प्रवृत्तियां</p> <p>रीतिमुक्त काव्यधारा की प्रवृत्तियां</p> <p>रीतिकालीन काव्य की उपलब्धियाँ</p>
16-11-22 to 30-11-22	<p>प्रयोजनमूलक हिन्दी</p> <p>कंप्यूटर- स्वरूप और महत्व</p> <p>ई-मेल -प्रेषण ग्रहण</p> <p>इंटरनेट</p> <p>मशीनी अनुवाद</p> <p>अनुवाद- परिभाषा और स्वरूप</p>
1-12-22 to 15-12-22	<p>संचार माध्यम/ मिडिया लेखन</p> <p>मुद्रण( प्रिंट मिडिया) समाचार पत्र का साहित्यिक स्वरूप</p> <p>दृश्य श्रव्य माध्यम का भाषाई और साहित्यिक स्वरूप</p> <p>फीचर- परिभाषा, स्वरूप एवं विशेषताएं</p> <p>विज्ञापन की अवधारणा, भाषा</p>
16-12-22 to 30-12-22	अधिन्व्यास पत्र – २ , कक्षापरिक्षण, पुनरावृत्ति
31-12-22 to 8-01-23	परीक्षा से पूर्व तैयारी क लिए दिया गया अवकाश

दिनांक-	
22-8-22 to 31-8-22	<p>समकालीन हिंदी कविता</p> <p>सच्चिदानंद हीरानंद वात्स्यायन "अज्ञेय"- कवी परिचय</p> <p>सप्रसंग व्याख्या- १. हमारा देश</p> <p>२. नदी के द्वीप</p> <p>३. कितनी नावों में कितनी बार</p> <p>४. नाच</p> <p>५. यह दीप अकेला</p> <p>६. सूनी सी सांझ एक</p> <p>७. सांप</p> <p>८. उड़चल हारिल</p> <p>सम्बंधित प्रश्नोत्तर</p>
1-9-22 to 15-9-22	<p>डॉ. धर्मवीर भारती- कवी परिचय</p> <p>सप्रसंग व्याख्या- १. रथ का टूटा पहिया</p> <p>२. फागुन की शाम</p> <p>३. फूल मोमबत्तियाँ और सपने</p>

9-1-23 to 29-1-23	परीक्षा
30-1-23 to 5-2-23	सदी की छुटिया

	<p>३ बादल को घिरते देखा है</p> <p>४ अकात और उसके बाद</p> <p>५ प्रेत का बयान</p>
27-10-22 to 31-10-22	<p>कुँवर नारायण - कवि परिचय</p> <p>सप्रसंग व्याख्या- १. चक्रव्यूह</p> <p>२. एक जले हुए मकान के सामने</p> <p>३. जब आदमी आदमी नहीं रह पाता</p> <p>सम्बंधित प्रश्नोत्तर</p>
1-11-22 to 15-11-22	<p>लीलाधर जगूड़ी-</p> <p>1- वृक्ष हत्या</p> <p>2- परिवार की खाड़ी में</p> <p>3- स्वतंत्र जुवान</p> <p>4- ईश्वर और आदमी में बातचीत</p> <p>5- जो ठोकर खाते हैं</p> <p>6-बहुत से पत्थर पड़े हैं</p> <p>सम्बंधित प्रश्नोत्तर</p> <p>अधिन्यास पत्र - १</p>
16-11-22 to 30-11-22	<p>हिन्दी साहित्य का आधुनिक काल</p> <p>भारतेन्दु युगीन कविता की प्रवृत्तियाँ</p> <p>द्विवेदी युगीन कविता की प्रवृत्तियाँ</p> <p>छायावाद</p> <p>प्रगतिवाद</p>

	<p>५. गुलाम बनाने वाले</p> <p>६. थके हुए कलाकार से</p> <p>७. विप्रलब्धा</p> <p>सम्बंधित प्रश्नोत्तर</p>
16-9-22 to 30-9-22	<p>श्री नरेश मेहता- कवी परिचय</p> <p>सप्रसंग व्याख्या- १. मंत्र- गंध और भाषा</p> <p>२. अरव्यानी से वापसी</p> <p>सम्बंधित प्रश्नोत्तर</p>
1-10-22 to 15-10-22	<p>रघुवीर सहाय- कवी परिचय</p> <p>सप्रसंग व्याख्या- १. लोकतंत्र का संकट</p> <p>२. चिट्ठियां</p> <p>३. भाषा का युद्ध</p> <p>४. धूप</p> <p>५. रामदास</p> <p>६. कोई एक और मतदाता</p> <p>७. काला नंगा बच्चा पैदल</p> <p>८. आत्महत्या क विरुद्ध</p> <p>९. चिथड़ा चिथड़ा मैं</p> <p>सम्बंधित प्रश्नोत्तर</p>
16-10-22 to 21-10-22	<p>दिवाली की छुट्टियां</p>
22-10-22 to 26-10-22	<p>नागार्जुन प- कवि परिचय</p> <p>सप्रसंग व्याख्या- १. उनको प्रणाम</p> <p>२. सिन्दूर तिलकित भाल</p>

राजकीय महाविद्यालय, सेक्टर १ गुरुग्राम

हिंदी विभाग

अध्यापन योजना: २०२२-२३

सहायक प्राध्यापिका का नाम: पूजा सिंहकला : बी.ए. प्रथम वर्ष

विषय का नाम : हिंदी (अतिवार्ष)

सेमेस्टर -द्वितीय

सत्र - फरवरी २०२३ - जून २०२३

दिनांक-	
6-2-23 to 15-2-23	ध्रुवस्वामिनी नाटक का प्रतिपाद स्पष्ट कीजिए ध्रुवस्वामिनी नाटक की पात्र योजना ध्रुवस्वामिनी नाटक की अभिनेयता
16-2-23 to 3-3-23	प्रसाद की नाट्यकला अधिन्यास पत्र-१ भक्तिकाल की परिस्थितियां संत काव्य की प्रवृत्तियां
4-3-23 to 8-3-23	होली की छुट्टी
9-3-23 to 15-3-23	सूफी काव्य की प्रवृत्तियां रामकाव्य की प्रवृत्तियां कृष्ण काव्य की प्रवृत्तियां



	<p>प्रयोगवाद</p> <p>नई कविता</p> <p>समकालीन कविता</p>
1-12-22 to 15-12-22	<p>प्रयोजनमूलक हिन्दी</p> <p>पत्रलेखन</p> <p>संक्षेपण</p> <p>पल्लवन</p> <p>प्रथम शिक्षण/ मातृभाषा तथा अन्य भाषाओं की संकल्पना</p> <p>द्वितीय भाषा तथा विदेशी भाषा की संकल्पना</p> <p>मातृभाषा और विदेशी भाषा के शिक्षण में अंतर</p> <p>विशिष्ट प्रयोजन के लिए भाषा शिक्षण</p>
16-12-22 to 30-12-22	अधिन्यास पत्र - २ , कक्षापरिक्षण, पुनरावृत्ति
31-12-22 to 8-01-23	परीक्षा से पूर्व तैयारी के लिए दिया गया अवकाश
9-1-23 to 29-1-23	परीक्षा
30-1-23 to 5-2-23	सर्दी की छुट्टियां

197147-

6-2-23 to 15-2-23

इदगाह : प्रेमचंद - साहित्यिक परिचय, कहानी का सार , प्रश्नोत्तर

पुरस्कार : जयशंकर प्रसाद - साहित्यिक परिचय, कहानी का सार , प्रश्नोत्तर

गैंग्रीन : सच्चिदानंद हीरानंद वात्स्यायन अज्ञेय - साहित्यिक परिचय, कहानी का सार , प्रश्नोत्तर

16-2-24 to 3-3-23

मलबे का मालिक : मोहन राकेश- साहित्यिक परिचय, कहानी का सार , प्रश्नोत्तर

केश : फकीरनाथ रेणु- साहित्यिक परिचय, कहानी का सार , प्रश्नोत्तर

कैसला : मैत्रयी पुष्पा- साहित्यिक परिचय, कहानी का सार , प्रश्नोत्तर

4-3-23 to 8-3-23

होली की छुट्टी

9-3-24 to 15-3-23

पच्चीस चौका डेढ़ साँ: ओमप्रकाश बान्सीकि - साहित्यिक परिचय, कहानी का सार , प्रश्नोत्तर

अधिन्यास पत्र-१

हिंदी साहित्य का आधुनिक काल

आधुनिक काल की परिस्थितियाँ,

16-3-23 to 31-3-23

हिंदी उपन्यास उद्भव और विकाश,

Rajendra Singh

16-3-23 to 31-3-23	अभ्यास का समय एवं महत्व भक्ति काव्य - रत्नसुत भक्तिसूक्त की विशेषताएँ भक्त का परिचय,
1-4-23 to 15-4-23	भक्त और तर्किक की तुलना, हिंदी भाषा के विकास का परिचय, भक्त के विविध रूप: शैली, मानक भाषा, राजभाषा, राष्ट्रभाषा, मातृभाषा भाषा, स्थानीय
16-4-23 to 30-4-23	मानक भाषा की प्रमुख प्रवृत्तियाँ, हिंदी वर्णमाला: स्वर एवं व्यंजन हिन्दी वर्णों की सामान्य एवं असाधारण और आन्वयिकताएँ सुधार की वैज्ञानिक पद्धति
1-5-23 to 15-5-23	लौकिकी वैज्ञानिक पद्धति सुधार की लौकिकी से अंतर पंक्ति, अर्थ, स्वरूप, उदाहरण विश्व अर्थ, स्वरूप, उदाहरण
16-5-23 to 3-6-23	विश्व, अर्थ, स्वरूप, उदाहरण पंक्ति, अर्थ, स्वरूप, उदाहरण अभिज्ञान पत्र - २, चक्षुपरिक्षण, पुनरावृत्ति
4-6-23 to 11-6-23	परीक्षा से पूर्व तैयारी के लिए दिया गया अवकाश

राजकीय महाविद्यालय, सेक्टर ९ गुरुग्राम

हिंदी विभाग

अध्यापन योजना: २०२२-२३

सहायक प्राध्यापिका का नाम: पूजा सिंह/कक्षा : बी.ए. तृतीय वर्ष

विषय का नाम : हिंदी (अभिव्यक्ति)

सत्र - पहला

सत्र - फरवरी २०२३ - जून २०२३

दिनांक-	
6-2-23 to 15-2-23	<b>नव्यतर गद्य गौरव</b> आशा का अंत (निबन्ध) - बालमुकुन्द गुप्त - साहित्यिक परिचय, व्याख्या, सम्बंधित प्रश्नोत्तर उत्साह (निबन्ध) - आचार्य रामचंद्र शुक्ल - साहित्यिक परिचय, व्याख्या, सम्बंधित प्रश्नोत्तर गिल्हू (संस्मरण) - महादेवी वर्मा - साहित्यिक परिचय, व्याख्या, सम्बंधित प्रश्नोत्तर
16-2-25 to 3-3-23	देवदारु (निबन्ध) - आचार्य हजारी प्रसाद द्विवेदी - साहित्यिक परिचय, व्याख्या, सम्बंधित प्रश्नोत्तर मेरे राम का मुकुट भीग रहा है - डॉ. विद्यानिवास मित्र - साहित्यिक परिचय, व्याख्या, सम्बंधित प्रश्नोत्तर सदाचार का ताबीज (व्यंग्य) - हरिशंकर परसाई - साहित्यिक परिचय, व्याख्या, सम्बंधित प्रश्नोत्तर
4-3-23 to 8-3-23	होली की छुट्टी
9-3-25 to 15-3-23	तिब्बत के पथ पर - (यात्रा वृत्तंत) - राहुल सांकृत्यायन - साहित्यिक परिचय, व्याख्या, सम्बंधित प्रश्नोत्तर अधिन्यास पत्र - १ हरियाणवी भाषा का उद्भव और विकास,
16-3-23 to 31-3-23	हरियाणवी भाषा की प्रमुख बोलियाँ हरियाणवी सांग परम्परा : उद्भव और विकास हरियाणवी भाषा का आधुनिक साहित्य,

Pooja Singh

	हिंदी कहानी उद्भव और विकास,
1-4-23 to 15-4-23	हिंदी नाटक उद्भव और विकास, हिंदी निबन्ध उद्भव और विकास
16-4-23 to 30-4-23	पारिभाषिकक शब्दावली का स्वरूप और महत्त्व, पारिभाषिकक शब्दावली के गुण,
1-5-23 to 15-5-23	पारिभाषिकक शब्दावली के निर्माण में सक्रिय विविध सम्प्रदाय : राष्ट्रियतावादी, अन्तर्राष्ट्रीयतावादी : समन्वयवादी
16-5-23 to 3-6-23	अधिन्यास पत्र - २ , कक्षापरिक्षण, पुनरावृत्ति
4-6-23 to 11-6-23	परीक्षा से पूर्व तैयारी के लिए दिया गया अवकाश

	<p>हरियाणवी का गद्य साहित्य - उपन्यास साहित्य, कहानी साहित्य, नाट्य साहित्य</p> <p>पत्रकारिता स्वरूप और प्रकार,</p>
16-4-23 to 30-4 -23	<p>शीर्षक का संरचना,</p> <p>संपादक क गुण और दायित्व,</p> <p>फीचर लेखन</p> <p>प्रूफ रीडिंग का स्वरूप एवं प्रूफ संसोधन के नियम,</p>
1-5-23 to 15-5-23	<p>स्वतंत्र प्रेस की अवधारणा,</p> <p>भाषा शिक्षण की आधारभूत संकल्पनाएं,</p> <p>भाषा कौशल - श्रवण, भाषण वाचन, लेखन,</p> <p>भाषा कौशल के रूप में शिक्षण,</p>
16-5-23 to 3-6-23	<p>साक्षात्कार : अर्थ एवं स्वरूप</p> <p>अधिन्यास पत्र - २ , कक्षापरिक्षण, पुनरावृत्ति</p>
4-6-23 to 11-6 23	<p>परीक्षा से पूर्व तैयारी क लिए दिया गया अवकाश</p>

**Lesson Plan**  
**Department of History**  
**Session – 2022-2023**  
**Teacher Incharge Dr. Meenu Sharma**  
**Lesson Plan**

<b>Semester odd\even</b>	<b>Lesson plan Weekly Session</b>	<b>Paper Name – History of India ( from earliest times to 1200 A.D)</b>	<b>History Dept./ Class- B.A- I semester</b>
Week-1	a) Reconstructing and Interpreting Ancient India:-Defining History, History and Past b) Sources of ancient India:- Types and use		
Week-2	Pre- Historical Age:- Main features of Paleolithic Mesolithic and Neolithic Cultures of India Revision of chapter done		
Week-3	Harappan Civilization:- Origin Extent and Town Planning , Economy Activities and Religion , Problem of Decay Map work		
Week-4	The Vedic Age (1500 B.C. To 600 B.C.)-Social ,Economy Activities and Political Religious Activities Unit Test		
Week-5	Second Urbanization and the rise of Territorial States New Religious Movement :- Jainism Buddhism Revision of chapter done		
Week-6	Foreign Invasion – Achamedians and Mesodomian, Their Impacts. Mauryan Empire:- Formation and consolidation , Asoka’s Dhamma ,Social and Economic Condition: Decline of Empire		
Week-7	Post Mauryan Age : The Kushanas : Formation and Consolidation ,Social-Cultural and Economic Developments Map Work		
Week-8	Sangam Age – Formation and Consolidation under Satavahanas, Cholas and Pandyas. Unit Test		
Week-9	Gupta Empire :- Political ,Social ,Economy Activities Post Gupta Age to 1200 A.D. Map Work		
Week-10	Formation and Consolidation under Pushpabhutis - Tripartite Struggle- Gurjara Partiharas, Palas, Rastrakutas Early Rajputs. Revision of Chapters done		
Week-11	Historical Background to the establishment of Delhi - Arab invasion, Turk’s- Nature, Impacts and Causes of their victory. Discussion on Assignments		
Week-12	Maps: 1) Important sites of Harappan Civilization 2) Extent of Ashoka’s Empire and Pillars Edicts 3) Ports, Trade routes of Ancient India 4) Extent of Kushana’s Empire 5) Extent of Harshavardhana Empire Short Questions Discussion		
Week -13	Revision of Entire Syllabus		

**Department of History**  
**Session – 2022-2023**  
**Teacher Incharge Dr. Meenu Sharma**

<b>semester odd\even</b>	<b>Lesson plan Weekly Session</b>	<b>Paper Name – History of India (from C.1200 A.D. to 1707 A.D.)</b>	<b>History Dept./ Class- B.A- II semester</b>
Week-1	Reconstructing and Interpreting Medieval India : Definition; Sources		
Week-2	Delhi Sultanate: Establishment and Consolidation under Early Turks: Aibek, Illutmish Balban Revision of Chapters done		
Week-3	Expansion of Delhi Sultanate under Khiljis and Tughlaqs Disintegration of Delhi Sultanate Map Work		
Week-4	India on the eve of Babar's invasion: His major achievements		
Week-5	Second Afghan Empire: Shershah Suri and His major achievements Unit Test		
Week-6	Consolidation and Expansion of Mughal Empires: Akbar, Jahangir, Map Work / Revision of Chapters done		
Week-7	Consolidation and Expansion of Mughal Empires: Shahjahan Class Presentation		
Week-8	Consolidation and Expansion of Mughal Empires: Aurangzeb Map Work		
Week-9	Administrative Institutional Developments: Iqta, Mansabdari Revision of Chapters done		
Week-10	Economic Aspects during Medieval Period -Land Revenue System -Industries, Trade and Commerce Map Work		
Week-11	Socio-Religious Life during Medieval Period -Bhakti Movement -Sufi Movement -Din-e-Ilahi -Art and Architecture Discussions On Assignment		
Week-12	Map: i) Extent of Sultanate under Allauddin Khalji ii) Urban Centres during Sultanate iii) Political Condition on the eve of Babar's invasion iv) India under Akbar(1605 A.D.) v) India under Aurangzeb(1707) Discuss Short Questions		
Week -13	Revision of Entire Syllabus.		



**Lesson Plan**  
**Department of History**  
**Session – 2022-2023**  
**Teacher Incharge Dr. Meenu Sharma**

semester odd\even	Lesson plan Weekly Session	Paper Name – History of India (from C.1707 A.D. to 1947 A.D.)	History Dept./ Class- B.A- III semester
Week-1	Disintegration of central authority :- Decline of Mughal Empire and Rise of successor states		
Week-2	British Conquest of India: its nature: a brief survey- Eastern India- Bengal; Southern India- Mysore and Marathas Revision of Chapters done		
Week-3	British Conquest of India: North and Western India-Awadh, Sind and Punjab Map Work		
Week-4	Administration in British India and Foreign policy Unit Test		
Week-5	Early resistance of British Rule Revolt of 1857 Revision of Chapters done		
Week-6	Society of India:- a. Social condition in 18th century b. Indian cultural renaissance c. Social impact of British rule Map Work		
Week-7	Economy of India:- a. Economic condition in 18th century b. British land revenue policy c. Rise of Modern Industry d. Economic impact of British rule Class Presentation/ Unit Test		
Week-8	Emergence of Nationalism:- a. Causes of the emergence of National Movement b. Indian National Congress Map Work		
Week-9	Indian National Congress and National Freedom Movement (1885-1947) c. Revolutionaries Discussions on Assignments		
Week-10	Towards Freedom;- a. Constitutional Development: 1909 to 1935 Map Work		
Week-11	Towards Freedom:- . Emergence of Communal and separatists politics c. Negotiations for independence and transfer of power Unit Test		
Week-12	Maps- 1. India during 1764 2. Important places of 1857 Revolt 3. Centers of socio-religious movements. 4. Important places of Revolutionary Movements. 5. Places associated with significant sessions of Indian National Congress Discuss Short Questions		
Week -13	Revision of Entire Syllabus.		

**Lesson Plan**  
**Department of History**  
**Session – 2022-2023**  
**Teacher Incharge Dr. Meenu Sharma**

<b>semester odd\even</b>	<b>Lesson plan Weekly Session</b>	<b>Paper Name – History of Haryana (from Earliest times to 1947 A.D)</b>	<b>History Dept./ Class- B.A- IV semester</b>
Week-1	Regional Study : A case of Haryana a. General survey of sources of the History of Haryana b. Stone age in Haryana: A brief survey		
Week-2	Harappan Civilization in Haryana :- General features Revision of Chapters done		
Week-3	Towards State Formation:- a. Kurus, Historicity of the battle of Mahabharata b. Rise of Republics: Yaudheyas and Agras Map Work		
Week-4	Rise of Powers during Early Medieval Period a. Pushpabhutis b. Tomars Monthly Test		
Week-5	Battles and Revolts during Medieval Period:- a. Battles of Tarain and their impact b. Battles of Panipat and their impact Revision of Chapters done		
Week-6	Battles and Revolts:- Resistance of Jats, Revolt of Satnamis Political Developments in 18th Century- Nawabi Kingdoms Map Work		
Week-7	Political Developments in 18th Century:-a. Intrusion of Sikhs b. Marathas, George Thomas and East India Company Unit Test		
Week-8	Political and Social Reactions of British Rule:- a. Revolt of 1857 b. Arya Samaj c. Spread of Modern Education Revision of Chapters done/Map Work		
Week-9	Freedom Movement in Haryana:- a. Political consciousness and peoples' participation-1885-1919 Class Presentation		
Week-10	Towards Freedom:- Non-co-operation and Quit India Movement Discussion on Assignments		
Week-11	Towards Freedom:- Unionist Party ,Praja Mandal Movement:- A brief Survey Maps:- Main centres of freedom struggle in Haryana. Revision of Chapters done		
Week-12	Maps 1. Main centres of Harappan civilization in Haryana 2. Haryana at the time of Harshavardhana 3. Urban centres(1200 AD to 1700 AD) during Medieval Period 4. Major centres of 1857 Revolt in Haryana Discuss Short Questions		
Week-13	Revision of Entire Syllabus.		

# Lesson Plan

## Department of History

Session – 2022-2023

Teacher Incharge Dr. Meenu Sharma

semester odd\even	Lesson plan Weekly Session	Paper Name –Ancient And Medieval World	History Dept./ Class- B.A- History Dept./ V semester
Week-1	Pre-Historic Cultures (a) Hunting stage (Paleolithic) (b) Hunting – gathering stage (Mesolithic)		
Week-2	Pre-Historic Cultures-Food producing stage (Neolithic) Revision of Chapters done		
Week-3	Bronze Age Civilizations- a.Sumerian Civilization: Socio-economic structure b. Egyptian Civilization: Socio-economic structure. Map Work		
Week-4	Bronze Age Civilizations- Indus Civilization: Socio-economic structure. Monthly Test		
Week-5	Iron age civilizations;- (a) Greek civilization : Polity, Society and Economy (b) Roman civilization : Polity, Society and Economy Revision of Chapters done		
Week-6	Iron age civilizations:- Indian civilization : P.G.W. Culture Map Work		
Week-7	Feudalism in Medieval Europe:- (a) Feudalism : Definition, Rise, Features and Decline Class Presentation/Unit Test		
Week-8	Role of Church in Medieval Europe Rise of Islam : Socio-Political background of Pre-Islamic Arabia, Map Work		
Week-9	Islamic World:- Evolution of Islamic State under Prophet Muhammad, Pious Caliphs (b) State under Umayyads and Abbasids; Intellectual and cultural contribution of the Arab civilization Revision of Chapters done		
Week-10	Transition of Europe from Medieval to Modern Period : Renaissance : Rise and it's impact Short Questions Discussion		
Week-11	Transition of Europe from Medieval to Modern Period :- Reformation : Rise and it's impact Discussion on Assignments		
Week-12	Map:- Indus valley civilization b. Main centers of Greek-Roman civilization c. Formation of empire under Abbasids Unit Test		
Week -13	Revision of Entire Syllabus.		

## Lesson Plan

Department of History  
Session – 2022-2023  
Teacher Incharge Dr. Meenu Sharma

semester odd\even	Lesson plan Weekly Session	Paper name- modern world	History Dept./ Class- B.A- History Dept./ VI semester
Week-1	Economic Development – I (a) Mercantilism (b) Agricultural Revolution → practice		
Week-2	Economic Development – I Technological Revolution Economic Development – II Capitalism – Its stages and development. Revision of Chapter Done.		
Week-3	Economic Development-II Agricultural- its Its theories and development Political Development – I (a) French Revolution Map Work		
Week-4	Political Development – I Nationalism in Germany & Italy Political Development – II Russian Revolution ,Liberalism in Britain Monthly Test		
Week-5	Political Development – II Nazism in Germany, Fascism in Italy Colonialism:- Stages of Colonialism in India Map Work		
Week-6	Colonialism :- China and the West , Japan and the West Revision of Chapter Done		
Week-7	World in the Crisis:- Ist World War and peace settlements Class Presentation /Revision of Chapter Done		
Week-8	World in the Crisis:- IInd World War and peace settlements Map Work		
Week-9	Non-Alignment Movement :- (a) Origin (b) Development Assignment Discussion		
Week-10	Maps: - i. Area of Agriculture Revolution ii. Europe on the eve of French Revolution		
Week-11	Maps:- unification of Italy Unification of Germany Map Work		
Week-12	Revision of Entire Syllabus.		

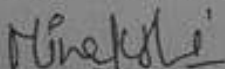
Govt. College, Sec 9, Gurugram  
Lesson Plan: 2022-23

Class: B. Com (Pass) 4<sup>th</sup> Semester(C/A)

Name of the Assistant Professor: Minakshi

Subject: BUSINESS STATISTICS

Feb 2023	
Week 2	Index Numbers:- Meaning, Types and Uses; Methods of Constructing price and Quantity indices
Week 3	Tests of adequacy; Chain-base Index number
Week 4	Base shifting, Splicing and Deflating; Problems in constructing index numbers; Consumer price index
Week 5	Revision
Mar 2023	
Week 1	Analysis of Time Series: - Causes of Variations in time series data; Components of a time series
Week 2	Holi Break
Week 3	Decomposition- Additive and Multiplicative models; determination of trend. Moving averages method and method of least square.
Week 4	Computation of seasonal indices by simple averages, Ratio to Trend, Ratio to moving average and link relative methods
Week 5	Revision
April 2023	
Week 1	Theory of Probability: - Probability as a Concept, Approaches to defining probability
Week 2	Addition and Multiplication laws of probability; Conditional probability, Baye's Theorem.
Week 3	Revision
Week 4	Revision
May 2023	
Week 1	Probability Distribution : - Probability distribution as a concept
Week 2	Binomial, Poisson
Week 3	Normal Distribution- Their Properties and Parameters.
Week 4	Revision
Week 5	Revision

  
Signature of Teacher

MINAKSHI

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (hons)-VI Semester


Paper: BC 601

Nomenclature of the Paper: Taxation Law

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Rebate & Relief of Tax
Week 3	computation of Total income
Week 4	Practical questions of total income
Week 5	Tax liability of individuals.
March 2023	
	Topic to be Covered
Week 1	Filing and Filing of return (ITR - I and II) & Assessment of Hindu Undivided Families
Week 2	Holi Break
Week 3	Assessment of Firms
Week 4	Practical questions of firms & Assessment of Association of Persons
Week 5	Deduction of Tax at Source (TDS), advance payment of tax
April 2023	
	Topic to be Covered
Week 1	Recovery & refund of tax, appeals & revision
Week 2	Income Tax authorities & their powers;
Week 3	Penalties, offences & prosecutions.
Week 4	procedure for assessment
May 2023	
	Topic to be Covered
Week 1	procedure for assessment
Week 2	Revision
Week 3	Revision
Week 4	Revision
Week 5	Revision

Head of Department

  
Signature of Teacher

Dr. Mukesh Kumar Sharma

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-VI Semester (Sec- )

Paper: BC 602

Nomenclature of the Paper: Cost Accounting

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Process Costing : Meaning, Uses, Preparation of process account, Treatment of Normal Wastage
Week 3	Abnormal Wastage, Abnormal Effectiveness
Week 4	Treatment of opening and closing stock (Excluding Work in Progress): Joint - Product and By - Product: Main methods of apportionment of Joint cost.
Week 5	Inter process profits.
March 2023	
	Topic to be Covered
Week 1	Contract Costing – meaning, main features, preparation of contract account
Week 2	Holi break
Week 3	Escalation clause; near completion, cost plus contract Job and batch costing contract
Week 4	Budgetary control – meaning of budget and budgetary control, budgetary control as a management tool, limitations of budgetary control, forecasts and budgets, installation of budgetary control system
Week 5	classification of budgets, fixed and flexible budgeting, performance budgeting.
April 2023	
	Topic to be Covered
Week 1	Zero based budgeting and responsibility accounting
Week 2	Standard Costing : meaning, limitations, standard costs and budgeted costs, determination of standard cost, Cost variances, direct material and direct labour.
Week 3	Practical questions
Week 4	Marginal Costing and Profit planning: Marginal costing, Absorption costing, Marginal cost, Cost volume Profit analysis,
May 2023	
	Topic to be Covered
Week 1	BEP Analysis, Key factor, BE chart, angle of incidence, concept of decisionmaking and steps involved, determination of sales mix, make or buy Decisions
Week 2	Practical questions
Week 3	Revision
Week 4	Revision
Week 5	Revision

Head of Department

Signature of Teacher

Mr. Sandeep Yadav

## Department of Commerce, GC Sec-9, Gurugram

Class: BBA 2 ND SEM

Paper: Company accounts

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Accounting for share capital transaction
Week 3	Alteration of share capital
Week 4	Buy back of shares
Week 5	Acquisition of business and profit prior to incorporation
March 2023	
	Topic to be Covered
Week 1	Issue of debentures
Week 2	Holi Break
Week 3	Methods of redemption of debentures
Week 4	Underwriting of shares and debentures
Week 5	practice
April 2023	
	Topic to be Covered
Week 1	Company's final accounts
Week 2	Statutory provision
Week 3	Practice
Week 4	Accounting standards
May 2023	
	Topic to be Covered
Week 1	Company liquidation account
Week 2	Valuation of goodwill and shares
Week 3	Banking company account and
Week 4	insurance company account
Week 5	Revision



Signature of Teacher

DR BHAVANA YADAV  
COMMERCE DEPARTMENT



## Department of Commerce, GC Sec-9, Gurugram

Class: BBA 2<sup>nd</sup> sem

Paper: BUSINESS STATISTICS

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Meaning ,scope ,limitations
Week 3	Data classification and tabulation
Week 4	Parts and types and construction of tables
Week 5	Types and construction of diagrams and graphs
March 2023	
	Topic to be Covered
Week 1	Meaning and objectives of measures of central tendency
Week 2	Holi Break
Week 3	Different measures : mean ,mode,median
Week 4	Dispersion ,coefficient of variation
Week 5	practice
April 2023	
	Topic to be Covered
Week 1	Meaning of correlation and types
Week 2	Properties of correlation co-efficient
Week 3	Practice
Week 4	Regression
May 2023	
	Topic to be Covered
Week 1	Index number
Week 2	Test for ideal index no
Week 3	Time series
Week 4	Method of estimating secular trend and seasonal indices
Week 5	Revision

  
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DR BHAVANA YADAV  
COMMERCE DEPARTMENT

Department of Commerce, GC Sec-9, Gurugram

Class: BBA 4<sup>th</sup> SEM

Paper: HRM

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Nature and scope of HRM
Week 3	HRM policies
Week 4	Strategic HRM
Week 5	BPO and KPO
March 2023	
	Topic to be Covered
Week 1	Human resource planning
Week 2	Holi Break
Week 3	Job analysis and design
Week 4	Recruitment and selection
Week 5	Placement and induction , right sizing
April 2023	
	Topic to be Covered
Week 1	Training
Week 2	Methods of training
Week 3	Career planning and development
Week 4	Employee retention and succession planning
May 2023	
	Topic to be Covered
Week 1	Enhancing and rewarding performance
Week 2	Rewards and pay plans
Week 3	Employees benefits
Week 4	Balance score card
Week 5	revision

  
Signature of Teacher

DR. BHAVANA YADAV  
COMMERCE DEPARTMENT

Department of Commerce, GC Sec-9, Gurugram

Class: BBA 6<sup>TH</sup> SEM

Paper: E-COMMERCE

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Meaning ,nature, concept
Week 3	Categories of E-commerce
Week 4	Nature and dynamics of internet
Week 5	Designing ,developing and deploying the system
March 2023	
	Topic to be Covered
Week 1	internet ,IT infrastructure
Week 2	Holi Break
Week 3	Online payment mechanism
Week 4	Tools for promoting plastic money
Week 5	Laws relating to online transaction
April 2023	
	Topic to be Covered
Week 1	Application in E-commerce
Week 2	Applications in manufacturing
Week 3	Retail and service sector
Week 4	Virtual existence
May 2023	
	Topic to be Covered
Week 1	Designing on E-commerce
Week 2	Security in e-commerce
Week 3	Digital signature
Week 4	Data encryption secret keys
Week 5	Revision

  
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DR BHAVANA YADAV  
COMMERCE DEPARTMENT

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-BBA 2<sup>nd</sup> sem

Paper:

Nomenclature of the Paper: computer application in management

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Introduction to computers
Week 3	History, basic anatomy
Week 4	Operating system
Week 5	Networking and advantages
March 2023	
	Topic to be Covered
Week 1	Virus, firewalls
Week 2	Holi Break
Week 3	Search engine, web browser
Week 4	Web hosting
Week 5	Internet app in business
April 2023	
	Topic to be Covered
Week 1	Data, information system
Week 2	DSS
Week 3	Expert system
Week 4	Executive information system
May 2023	
	Topic to be Covered
Week 1	Multimedia app
Week 2	Marketing and advertising
Week 3	Web app of multimedia
Week 4	revision
Week 5	test

Head of Department

  
Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-BBA 4<sup>th</sup> sem

Paper:

Nomenclature of the Paper: data base management system

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Introduction to DBMS
Week 3	File, data, dictionary
Week 4	Database administration
Week 5	File oriented system
March 2023	
	Topic to be Covered
Week 1	Database system architecture
Week 2	Holi Break
Week 3	Schemes, sub schemes
Week 4	Data base architecture
Week 5	Data independence
April 2023	
	Topic to be Covered
Week 1	Data base security
Week 2	Threats & security issues
Week 3	Firewalls & database recovery
Week 4	Distribute of database
May 2023	
	Topic to be Covered
Week 1	Data warehousing & data mining
Week 2	Mobile data base
Week 3	Spactical data base
Week 4	revision
Week 5	Test and revision

Head of Department

  
Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-BBA 4<sup>th</sup> sem

Paper:

Nomenclature of the Paper: system analysis & design

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Introduction to analysis & design
Week 3	SDLC
Week 4	ER data module
Week 5	Feasibility study
March 2023	
	Topic to be Covered
Week 1	Design of application
Week 2	Holi Break
Week 3	DFDs, screen design
Week 4	Structure chart, equipment spec
Week 5	I-O design
April 2023	
	Topic to be Covered
Week 1	Implementation data dictionary
Week 2	Decision tables
Week 3	Decision trees
Week 4	Logical design to physical implem
May 2023	
	Topic to be Covered
Week 1	Introduction to distributed data prod
Week 2	Evaluating distribution system
Week 3	Real time system
Week 4	State transition diagram
Week 5	revision

Head of Department

  
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## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-BBA 4<sup>th</sup> sem

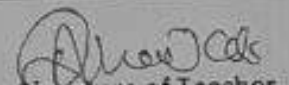
Paper:

Nomenclature of the Paper: foundation of international business

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Types of international business
Week 3	Risks and analysis
Week 4	motives
Week 5	barriers
March 2023	
	Topic to be Covered
Week 1	Foreign market entry modes
Week 2	Holi Break
Week 3	Control methods
Week 4	Factors of country evaluation
Week 5	revision
April 2023	
	Topic to be Covered
Week 1	Basics foreign manufacturing
Week 2	Product & branding decision
Week 3	Approaches to international pricing
Week 4	Foreign channel
May 2023	
	Topic to be Covered
Week 1	Accounting diff across countries
Week 2	Cross culture challenges
Week 3	International staffing decision
Week 4	Basic tech
Week 5	revision

Head of Department

  
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Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-B.com pass 4<sup>th</sup> sem

Paper:

Nomenclature of the Paper: corporate accounting

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Meaning of liquidation
Week 3	Practicals of liquidation
Week 4	practice
Week 5	Meaning of internal reconstruction
March 2023	
	Topic to be Covered
Week 1	Practical questions of internal reco.
Week 2	Holi Break
Week 3	Meaning of financial instrument
Week 4	Mutual funds
Week 5	revision
April 2023	
	Topic to be Covered
Week 1	Meaning of holding company, importance, types
Week 2	Practicals of holding company
Week 3	practice
Week 4	Meaning of banking company
May 2023	
	Topic to be Covered
Week 1	Practicals of banking company
Week 2	Meaning of amalgamation company
Week 3	Practical ques
Week 4	practicals
Week 5	revision

Head of Department



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# Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-B.com hons 4<sup>th</sup> sem


Paper:

Nomenclature of the Paper: corporate accounting

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Meaning of liquidation
Week 3	Practical questions
Week 4	Practical questions
Week 5	Meaning of internal reconstruction
March 2023	
	Topic to be Covered
Week 1	Practical ques
Week 2	Holi Break
Week 3	Meaning of banking company
Week 4	Practical question of banking company
Week 5	practice
April 2023	
	Topic to be Covered
Week 1	Meaning of amalgamation company
Week 2	Practical questions
Week 3	practice
Week 4	revision
May 2023	
	Topic to be Covered
Week 1	Meaning of electricity accounts
Week 2	Practical questions
Week 3	Underwriting commission
Week 4	revision
Week 5	Test and revision

Head of Department

  
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## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-B.com hons 4<sup>th</sup> sem

Paper:

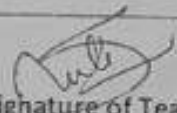
Nomenclature of the Paper: Business Ethics

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Thinking conceptually about politics
Week 3	Liberty, equality, justice
Week 4	Rights, recognition
Week 5	The idea of good society
March 2023	
	Topic to be Covered
Week 1	Domain of politics and ethics
Week 2	Holi Break
Week 3	Democracy and welfare state
Week 4	Market of globalisation
Week 5	dentologism
April 2023	
	Topic to be Covered
Week 1	Politics & ethics in business
Week 2	Corporate social responsibility
Week 3	Corporate philanthropy
Week 4	Strategic plan
May 2023	
	Topic to be Covered
Week 1	Corruption and corporation scandals
Week 2	Whistle blowing
Week 3	Gender sensitization
Week 4	Insider trading
Week 5	revision

Head of Department

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## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-B.com pass 2<sup>nd</sup> sem

Paper:

Nomenclature of the Paper: Business Environment

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Business environment concept and components
Week 3	Importance & analysis of business environment
Week 4	Swot analysis
Week 5	revision
March 2023	
	Topic to be Covered
Week 1	National income trends
Week 2	Holi Break
Week 3	Savings & investment of trends and industrial dev
Week 4	Balance of trade and payment
Week 5	revision
April 2023	
	Topic to be Covered
Week 1	Unemployment problem in india
Week 2	Regional imbalances, inflation
Week 3	Parallel economy
Week 4	Industrial sickness
May 2023	
	Topic to be Covered
Week 1	Monetary policy of india
Week 2	Fiscal policy of india
Week 3	Industrial policy
Week 4	Privatisation in india
Week 5	revision

Head of Department

  
Signature of Teacher

Department of Commerce, GC Sec-9, Gurugram

Class: BBA 4<sup>th</sup> SEM

Paper: Human values and rights

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Concept of human rights
Week 3	Human rights movement in india
Week 4	Classification of human rights
Week 5	Constitutional provision
March 2023	
	Topic to be Covered
Week 1	Poverty, overpopulation ,illiteracy
Week 2	Holi Break
Week 3	Unsustainable development
Week 4	Disadvantaged group
Week 5	Disadvantaged group
April 2023	
	Topic to be Covered
Week 1	Violation human rights
Week 2	Nuclear weapons and terrorism
Week 3	Government system for redressal
Week 4	Media advocacy
May 2023	
	Topic to be Covered
Week 1	Concept of human values
Week 2	Types of values
Week 3	Character formation
Week 4	Value education towards national and global development
Week 5	Revision

Signature of Teacher

ANITA NOHALIYA  
[Commerce Department]

## Department of Commerce, GC Sec-9, Gurugram

Class: BBA 6<sup>th</sup> sem

Paper : Income tax

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Basic concepts of income tax
Week 3	Residential status and tax incidence
Week 4	Income exempted from tax
Week 5	Income from salary
March 2023	
	Topic to be Covered
Week 1	Income from salary
Week 2	Holi Break
Week 3	Income from salary after retirement
Week 4	Income from profits and gain of business and profession
Week 5	Capital gain
April 2023	
	Topic to be Covered
Week 1	Income from other sources
Week 2	Set off and carry forward of losses
Week 3	Clubbing of income
Week 4	TDS
May 2023	
	Topic to be Covered
Week 1	Deduction from gross total income ,
Week 2	Assessment of individual
Week 3	Revision
Week 4	Revision
Week 5	Revision

Signature of Teacher

ANITA NIHALIYA  
[Commerce Department]

Department of Commerce, GC Sec-9, Gurugram

Class: BBA 4th SEM

Paper; BUSINESS RESEARCH METHODS

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	introduction
Week 3	Managerial values
Week 4	Theories and research problem
Week 5	Research proposal
March 2023	
	Topic to be Covered
Week 1	Research design
Week 2	Holi Break
Week 3	Elements of research design
Week 4	Exploratory research and experimental research
Week 5	Measurement scale
April 2023	
	Topic to be Covered
Week 1	SAMPLE DESIGN AND sampling procedure
Week 2	Sample size
Week 3	Data collection
Week 4	Questionnaire
May 2023	
	Topic to be Covered
Week 1	Data analysis
Week 2	Descriptive analysis
Week 3	Research report
Week 4	Revision
Week 5	Revision

Signature of Teacher

ANITA NIHALAYA  
[Commerce Department]

## Department of Commerce, GC Sec-9, Gurugram

Class: BBA 2 ND SEM

Paper: organizational Behaviour

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Concept and scope of OB
Week 3	Emerging trends and hanging profiles of workforce
Week 4	Foundations of OB
Week 5	Challenges of OB
March 2023	
	Topic to be Covered
Week 1	Personality, values, attitude
Week 2	Holi Break
Week 3	Perception ,learning
Week 4	Motivation
Week 5	Emotional intelligence
April 2023	
	Topic to be Covered
Week 1	Group behaviour
Week 2	Team process
Week 3	Teams and teamwork
Week 4	Conflicts and negotiation ,power and politics
May 2023	
	Topic to be Covered
Week 1	Organisation structure and design
Week 2	Organisation culture
Week 3	Organisational change
Week 4	Development and stress mgmt
Week 5	Revision

Signature of Teacher

ANITA NIHALIYA  
(Commerce Department)

Department of Commerce, GC Sec-9, Gurugram

CLASS: BCOM PASS SEM 4

NAME OF THE ASSISTANT PROFESSOR- SHAILI SONI

PAPER: MARKETING MANAGEMENT

SECTION - A AND B

LESSON PLAN: FEB 2023-MAY 2023

Feb. 2023	
	Topic to be Covered
Week 2	introduction
Week 3	Marketing management, meaning
Week 4	Concepts, modern and traditional
Week 5	revision
March 2023	
	Topic to be Covered
Week 1	Consumer behaviour, meaning
Week 2	Pricing meaning ,methods
Week 3	Revision of both
Week 4	Marketing segmentation
Week 5	revision
April 2023	
	Topic to be Covered
Week 1	Branding importance ,concepts
Week 2	Packaging importance, concepts
Week 3	Revision of both
Week 4	Assignment, presentation
May. 2023	
Week 1	Promotion mix and marketing mix
Week 2	Advertising media
Week 3	Types of media
Week 4	sales promotion
Week 5	Methods of sales promotion

Head of Department

Shaili Soni  




## Department of Commerce, GC Sec-9, Gurugram

CLASS: BCOM HONES SEM2

NAME OF THE ASSISTANT PROFESSOR- SHAILI SONI

PAPER: AN INTRODUCTION TO ACCOUNTING

LESSON PLAN: FEB 2023-MAY 2023

Feb. 2023	
	Topic to be Covered
Week 2	Higher purchase and instalment payment system
Week 3	Numerical problems
Week 4	Questions. 10 to 30
Week 5	revision
March 2023	
	Topic to be Covered
Week 1	Lease accounting meaning and theory
Week 2	Branch meaning, types of branches
Week 3	Revision of both
Week 4	Droughts of hire purchase and branch accounting, departmental accounting
Week 5	revision
April 2023	
	Topic to be Covered
Week 1	Dissolution of partnership insolvency of partner
Week 2	Numerical problems
Week 3	Revision of both
Week 4	Assignment, presentation
May. 2023	
Week 1	Royalty accounts meaning and theory
Week 2	Practical problems
Week 3	An introduction of tally
Week 4	Meaning and practical class of tally
Week 5	revision

Head of Department

Shaili Soni



## Department of Commerce, GC Sec-9, Gurugram

CLASS: BCOM PASS SEM 6

NAME OF THE ASSISTANT PROFESSOR- SHAILI SONI

PAPER: ACCOUNTING FOR FINANCIAL MANAGEMENT

LESSON PLAN: FEB 2023-MAY 2023

Feb. 2023	
	Topic to be Covered
Week 2	Introduction and meaning of financial management
Week 3	Scope of finance, profit maximisation and wealth maximisation
Week 4	Concepts, modern and traditional
Week 5	revision
March 2023	
	Topic to be Covered
Week 1	Working capital management and cost of capital
Week 2	Practical problem of WCM
Week 3	Revision of both
Week 4	Capital structure theory and policy
Week 5	revision
April 2023	
	Topic to be Covered
Week 1	Practical problems of C S
Week 2	Droughts of C S
Week 3	Revision of both
Week 4	Assignment, presentation
May, 2023	
Week 1	Dividend theory introduction
Week 2	Consideration in dividend policy
Week 3	Stability of dividend
Week 4	Form of dividend
Week 5	revision

Head of Department

Shaili Soni  
R

Department of Commerce, GC Sec-9, Gurugram

Class: BBA 2 ND SEM

Paper: PRINCIPLES OF MANAGEMENT

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Nature and process of management
Week 3	Roles and skills
Week 4	Approaches to mgmt
Week 5	Contemporary issues and challenges
March 2023	
	Topic to be Covered
Week 1	Planning and decision making
Week 2	Holi Break
Week 3	Goal setting and MBO
Week 4	Decision making
Week 5	Forms of group decision making
April 2023	
	Topic to be Covered
Week 1	Organising
Week 2	departmentalisation
Week 3	Coordination and org structure
Week 4	leadership
May 2023	
	Topic to be Covered
Week 1	Mgmt control
Week 2	Kinds of control system
Week 3	Controlling techniques
Week 4	Social audit
Week 5	Revision

*Ritu*

Signature of Teacher

RITU PHOGAT  
[Commerce Department]

Department of Commerce, GC Sec-9, Gurugram

Class: BBA 4<sup>th</sup> SEM

Paper: business law

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Contract and essential of valid contract
Week 3	Offer and acceptance
Week 4	Free consent ,void agreement
Week 5	Discharge of contract, breach of contract
March 2023	
	Topic to be Covered
Week 1	Contract of guarantee
Week 2	Holi Break
Week 3	Contract of indemnity
Week 4	Definition of bailment and its kinds
Week 5	Rights and duties of a pledger and pledgee
April 2023	
	Topic to be Covered
Week 1	Agent and agency
Week 2	Termination of agency
Week 3	Law of sale of goods
Week 4	Rights of unpaid seller
May 2023	
	Topic to be Covered
Week 1	Negotiable instrument
Week 2	Dishonour of negotiable instrument
Week 3	IT act
Week 4	RTI act
Week 5	Revision

*Ritu*

Signature of Teacher

RITUPHOQAT

[Commerce Department]

## Department of Commerce, GC Sec-9, Gurugram

Class: BBA 4th SEM

Paper: FINANCIAL MANAGEMENT

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Scope and functions of finance manger
Week 3	Objectives of financial management
Week 4	Profit vs wealth maximization
Week 5	Time value of money
March 2023	
	Topic to be Covered
Week 1	Investment decision
Week 2	Holi Break
Week 3	Cost of capital
Week 4	Capital budgeting
Week 5	Capital rationing
April 2023	
	Topic to be Covered
Week 1	Financing decision
Week 2	Leverages
Week 3	Capital structure theories
Week 4	EPS EBIT
May 2023	
	Topic to be Covered
Week 1	Dividend decision
Week 2	Management of working capital
Week 3	Management of cash
Week 4	Management of inventory
Week 5	Revision

Signature of Teacher

RITU PHOGAT  
[Commerce Department]

## Department of Commerce, GC Sec-9, Gurugram

Class: BBA 6<sup>TH</sup> SEM

Paper: Consumer protection

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Concept and types of consumer ,need of consumer protection
Week 3	Approaches to consumer protection ,buying motives
Week 4	Concept of consumer's sovereignty
Week 5	Basic consumer rights
March 2023	
	Topic to be Covered
Week 1	Measures of consumer protection
Week 2	Holi Break
Week 3	Basic provision of consumer protection act
Week 4	Organisational set up under CPA
Week 5	Procedure of filling a complaint
April 2023	
	Topic to be Covered
Week 1	Competition act
Week 2	Role of voluntary consumer organisation
Week 3	Business self regulation
Week 4	Consumer awareness
May 2023	
	Topic to be Covered
Week 1	Consumer protection movement
Week 2	Consumer information and knowledge
Week 3	Sources of consumer information
Week 4	Role of ASCI
Week 5	Revision

Signature of Teacher

RITU PHOGAT  
(Commerce Department)

## Department of Commerce, GC Sec-9, Gurugram

Class: M. Com (P) – II Semester

Paper: 16MCO22D3

Nomenclature of the Paper: Organizational Behaviour

Lesson Plan: from Feb. 2023 to June 2023

Feb. 2023	
	Topic to be Covered
Week 2	Organisational Behavior: concept and significance;
Week 3	Organisational Behavior and Relationship to other fields ;OB Model
Week 4	Ethics and ethical behaviour in organizations. Learning: meaning an definition, process,
Week 5	Theories of learning, OB In learning organization
March 2023	
	Topic to be Covered
Week 1	Attitude: meaning and definition, components, functions, formation, changing of attitude.
Week 2(Holi break)	Prejudice and attitude
Week 3	Personality: meaning and definition, the big five personality model,
Week 4	The Myers-Briggs Type Indicator, additional work related aspects of personality
Week 5	Perception: meaning and definition, process, factors influencing perception
April 2023	
	Topic to be Covered
Week 2	perceptual errors or distortions
Week 3	Group dynamics- definition and importance, types of groups, group formation
Week 4	Group development, group performance factors, group norms, group status, group size, cohesiveness, social loafing.
Week 5	Team: types, team composition factors, team development
May. 2023	
Week 1	Organisational Conflict: Dynamics and management; sources, patterns, levels, and types of conflict;
Week 2	Traditional and modern approaches to conflict; Functional and dysfunctional organisational conflicts; Resolution of conflict
Week 3	Organisational development: Concept; Need for change, resistance to change;
Week 4	Theories of planned change; organisational diagnosis
Week 5	OD intervention

*Kausar*

Head of Department

Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

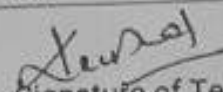
Class: M. Com (P) – IV Semester

Paper: Nomenclature of the Paper: Production management

Lesson Plan: from Feb. 2023 to June 2023

Feb. 2023	
	Topic to be Covered
Week 2	Introduction: Concept of Production Management
Week 3	Nature and scope of Production Management,
Week 4	Evolution of production function;
Week 5	Production Process
March 2023	
	Topic to be Covered
Week 1	Organization of production function.
Week 2(Holi break)	do
Week 3	Relationship between production and other functions.
Week 4	Facility Location: nature, objectives and significance.
Week 5	Theories of location; factors influencing location
April 2023	
	Topic to be Covered
Week 2	Layout: Meaning, objectives and types
Week 3	Principles of layout; factors affecting layout.
Week 4	Production Planning: Concept and need, Factors influencing Production Planning
Week 5	Types of Production planning
May. 2023	
Week 1	Production planning techniques, Production Control: - Meaning, objectives and elements
Week 2	Control techniques, Production Control in different Production Systems; Benefits & limitations.
Week 3	Quality control: Meaning, scope, objectives and organization; Quality Control Techniques
Week 4	Plant Maintenance: Meaning, scope, objectives, types;
Week 5	Maintenance programme techniques & Organization

Head of Department

  
Signature of Teacher





## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (H) – VI Semester

Paper: Nomenclature of the Paper: Business environment and international marketing

Lesson Plan: from Feb. 2023 to June 2023

Feb. 2023	
	Topic to be Covered
Week 2	Business Environment: concept; components and importance
Week 3	SWOT Analysis. Agriculture in India- Problems, Importance, contribution in national economy, remedial measures.
Week 4	Economic Trends (overview). income, savings and investment;
Week 5	Economic trends in industry, Trade and balance of payments.
March 2023	
	Topic to be Covered
Week 1	Problems of Growth: Unemployment, Poverty, regional imbalances, social injustice, inflation,
Week 2(Holi break)	parallel economy and industrial sickness.
Week 3	Role of Govt. in Indian Economy: Monetary and Fiscal Policy;
Week 4	Industrial Policy; Industrial Licensing; Privatization and Devaluation,
Week 5	International Business: - An overview, Domestic versus International Business; Major risks and challenges of International Business;
April 2023	
	Topic to be Covered
Week 2	International Business Environment- Components and determinants; stages of internationalization of business
Week 3	International business approaches, concept of globalization.
Week 4	Modes of entering into international business
Week 5	Nature of multinational enterprise and international direct investment
May. 2023	
Week 1	Foreign exchange; determination of exchange rate, Balance of payments
Week 2	Theories of International Trade- Absolute advantage theory, comparative advantage theory; factor proportions theory
Week 3	Product life cycle theory of trade; government influence on trade; rationale for government intervention, instruments of trade control

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Week 4	Role of WTO, IMF and World Bank in international trade.
Week 5	Assessing International markets; designing products for foreign markets; branding decisions; international promotions policy; international pricing; international logistics and distribution

Head of Department

Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (H) – VI Semester

Paper: Nomenclature of the Paper: Project planning and Management

Lesson Plan: from Feb. 2023 to June 2023

Feb. 2023	
	Topic to be Covered
Week 2	Project Planning. An overview
Week 3	Project Planning, strategy and Capital Allocation
Week 4	Generation and Screening of Project Ideas,
Week 5	Analysis: Market and Demand analysis
March 2023	
	Topic to be Covered
Week 1	Technical Analysis, financial Estimates and Projections
Week 2(Holi break)	Time Value Money,
Week 3	Investment Criteria
Week 4	Project Cash Flows, The Cost of Capital
Week 5	Risk analysis, Risk analysis- Market and Firm Risk , Special Decision Situations,
April 2023	
	Topic to be Covered
Week 2	Social Cost Benefit analysis, Multiple Projects and Constraints
Week 3	Valuation of Real Options
Week 4	Judgemental, Behavioural, Strategic and Organisational considerations.
Week 5	Financing. Financing of Projects, financing Infrastructure Projects
May, 2023	
Week 1	Financing of Projects- Venture capital and Private Equity
Week 2	Project Management
Week 3	Network Techniques for Project Management
Week 4	do
Week 5	Project Review and Administrative Aspects

*Heurist*



## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-VI Semester (Sec- B )

Paper: BC 602

Nomenclature of the Paper: Cost Accounting

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Process Costing : Meaning, Uses, Preparation of process account, Treatment of Normal Wastage
Week 3	Abnormal Wastage, Abnormal Effectiveness
Week 4	Treatment of opening and closing stock (Excluding Work in Progress) Joint Product and By - Product: Main methods of apportionment of Joint cost.
Week 5	Inter process profits.
March 2023	
	Topic to be Covered
Week 1	Contract Costing – meaning, main features, preparation of contract account
Week 2	Holi break
Week 3	Escalation clause; near completion, cost plus contract Job and batch costing. contract
Week 4	Budgetary control – meaning of budget and budgetary control, budgetary control as a management tool, limitations of budgetary control, forecasts and budgets, installation of budgetary control system
Week 5	classification of budgets, fixed and flexible budgeting, performance budgeting,
April 2023	
	Topic to be Covered
Week 1	Zero based budgeting and responsibility accounting
Week 2	Standard Costing : meaning, limitations, standard costs and budgeted costs, determination of standard cost, Cost variances, direct material and direct labour
Week 3	Practical questions
Week 4	. Marginal Costing and Profit planning: Marginal costing, Absorption costing, Marginal cost, Cost volume Profit analysis,
May 2023	
	Topic to be Covered
Week 1	BEP Analysis, Key factor, BE chart, angle of incidence, concept of decisionmaking and steps involved, determination of sales mix, make or buy Decisions
Week 2	Practical questions
Week 3	Revision
Week 4	Revision
Week 5	Revision

Head of Department

*Shilpa*  
Signature of Teacher

Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-VI Semester (Sec- A,B & C )

Paper: BC 601

Nomenclature of the Paper: Taxation Law

Lesson Plan: from February 2023 to May 2023

February 2023	
	Topics to be covered
Week 2	Rebate & Relief of Tax
Week 3	computation of Total income
Week 4	Practical questions of total income
Week 5	Tax liability of individuals.
March 2023	
	Topic to be Covered
Week 1	Filing and Filing of return (ITR - I and II) & Assessment of Hindu Undivided Families
Week 2	Holi Break
Week 3	Assessment of Firms
Week 4	Practical questions of Firms & Assessment of Association of Persons
Week 5	Deduction of Tax at Source (TDS); advance payment of tax.
April 2023	
	Topic to be Covered
Week 1	Recovery & refund of tax, appeals & revision
Week 2	Income Tax authorities & their powers,
Week 3	Penalties, offences & prosecutions
Week 4	procedure for assessment
May 2023	
	Topic to be Covered
Week 1	procedure for assessment
Week 2	Revision
Week 3	Revision
Week 4	Revision
Week 5	Revision

Head of Department

  
Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (pass) – IV Semester Sec - A

Paper: Nomenclature of the Paper: BUSINESS REGULATORY FRAMEWORK(II)

Lesson Plan: from Feb. 2023 to May 2023

Feb. 2023	
	Topic to be Covered
Week 2	Indian partnership act 1932, duties & rights
Week 3	Relation of partnership , position of minor
Week 4	Complete indian partnership, dissolution
Week 5	revision
March 2023	
	Topic to be Covered
Week 1	Negotiable instruments- introduction
Week 2(Holi break)	-do-
Week 3	Promissory notes, bills of exchange, cheques
Week 4	Discharge of parties, dishonour of instruments
Week 5	Presentment of negotiable instruments
April 2023	
	Topic to be Covered
Week 2	Sale of goods act-1930, contract of sale
Week 3	Conditions and warranties
Week 4	Transfer of property & ownership
Week 5	Performance of the contract
May. 2023	
Week 1	Unpaid seller, suits for breach of contract
Week 2	Revision
Week 3	Right of information act -2005
Week 4	Right of information act -2005
Week 5	Revision

Head of Department

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Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (Pass) – II Semester

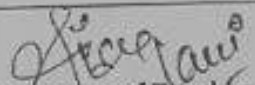
Sec-C

Nomenclature of the Paper: FINANCIAL ACCOUNTING-(II)

Lesson Plan: from Feb. 2023 to May 2023

Feb. 2023	
	Topic to be Covered
Week 2	Hire purchase system (Meaning & methods)
Week 3	Numerical of hire purchase system, instalment payment system introduction
Week 4	Instalments payment system methods
Week 5	Revision
March 2023	
	Topic to be Covered
Week 1	Branch account ( Departmental Branch)
Week 2 (Holi break)	-----
Week 3	Dependent branch and independent branch introduction
Week 4	Independent branch methods
Week 5	Revision
April 2023	
	Topic to be Covered
Week 2	Dissolution of partnership firms, Insolvency
Week 3	Numericals & problem of dissolution
Week 4	Amalgamation & sale of partnership firms
Week 5	Revision
May. 2023	
Week 1	Joint venture introduction
Week 2	Methods of joint venture
Week 3	Royalty account introduction
Week 4	Completion of Royalty account
Week 5	Revision

Head of Department

  
Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

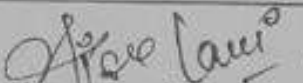
Class: B. Com (HONS.) – IV Semester

Paper: Nomenclature of the Paper: Financial Institution & Markets

Lesson Plan: from Feb. 2023 to May 2023

Feb. 2023	
	Topic to be Covered
Week 2	An overview of India financial institution
Week 3	Export -Import Bank of India
Week 4	NABARD- History, functions, activities
Week 5	Credit, Reserve Bank of India
March 2023	
	Topic to be Covered
Week 1	Money market
Week 2(Holi break)	do
Week 3	Money market, primary market
Week 4	Primary market, secondary market
Week 5	Completion secondary market, revision
April 2023	
	Topic to be Covered
Week 2	Revision of primary and secondary market
Week 3	Merchant Banking- origin & services
Week 4	Merchant banking- progress, qualities
Week 5	Revision
May. 2023	
Week 1	Venture capital- concepts, features, importance
Week 2	Venture capital- initiative, methods
Week 3	Lease financing- meaning & origin
Week 4	Lease financing - problem & prospects
Week 5	Revision

Head of Department

  
Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (pass) – VI Semester Sec - A

Paper: Nomenclature of the Paper: AUDITING

Lesson Plan: from Feb. 2023 to May 2023

Feb. 2023	
	Topic to be Covered
Week 2	Introduction, objects & Importance & limitations
Week 3	Classification of audit
Week 4	Audit planning
Week 5	Internal control, internal check & internal audit
March 2023	
	Topic to be Covered
Week 1	Routine checking & vouching
Week 2(Holi break)	-do-
Week 3	Verification of assets and liabilities
Week 4	Valuation of assets
Week 5	Appointment, power, duties & liabilities
April 2023	
	Topic to be Covered
Week 2	Audit committee
Week 3	Depreciation , provision & reserve
Week 4	Audit report
Week 5	investigation
May. 2023	
Week 1	Cost audit
Week 2	Tax audit
Week 3	Management audit
Week 4	Auditing & assurances standards(AAs)
Week 5	Revision

Head of Department

Signature of Teacher

*A. K. Law*



Govt. College, Sec 9, Gurugram  
Lesson Plan: 2022-23

[Even]

Class: B. Com (Pass) 2<sup>nd</sup> Semester

Name of the Assistant Professor:

Subject: Financial accounting

Feb 2023

Week 2	Meaning, Terms and characteristics of Hire Purchase System, Difference between HPP and Credit Sale, Methods of HPP
Week 3	Transfer of asset to third party, Sale of asset by Hire purchaser and Numerical problems, Goods of small value, Stock and debtor system in HPP and Numerical problems
Week 4	Branch Accounts, Meaning, types and its methods, Debtors method Final account method, Stock and debtor system
Week 5	Independent branches, Incorporation entries in the books of head office by different methods

Mar 2023

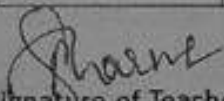
Week 1	Meaning of Department account, Difference between departmental accounts and branch accounts
Week 2	Holi Break
Week 3	Departmental trading and P & L account, General profit and loss account, Allocation of expenses with its solved illustrations
Week 4	Inter departmental transactions with its solved illustrations
Week 5	Revision

April 2023

Week 1	Dissolution of Partnership firm: Meaning, modes and accounting procedure of dissolution firm and Numerical problems, Insolvency of partner, Rule of Garner vs Murray with its solved illustrations
Week 2	Joint venture accounts, Joint venture accounting treatment
Week 3	Accounting treatment of maintaining Joint venture methods, Joint bank methods with its solved illustrations
Week 4	Revision

May 2023

Week 1	Amalgamation and sale of partnership firm to a company, accounting records in the books of old and new firm, Sale of partnership firm to a company
Week 2	Royalty accounts: Meaning, types, difference between rent and royalty
Week 3	Recoupment of each year's short working and practical problems
Week 4	Revision
Week 5	Revision

  
Signature of Teacher

Govt. College, Sec 9, Gurugram  
Lesson Plan: 2022-23

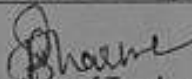
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Class: B. Com (Pass) 4th Semester(A,B,C)

Name of the Assistant Professor:

Subject: Corporate Law

Feb 2023	
Week 2	Shares: - share and stock, Allotment of Shares, calls and Forfeiture of shares.
Week 3	Share certificate and share warrant
Week 4	Transfer and Transmission of shares, Surrender of shares
Week 5	Revision
Mar 2023	
Week 1	Share capital - Meaning and forms of capital, Alteration of share/ termination of membership
Week 2	Holi Break
Week 3	Reduction of share capital, Further issue of share capital, Rights of pre-emption of shares
Week 4	Shareholders and Members - Difference between Shareholders and members, Modes of acquiring membership
Week 5	Rights and Liabilities of members, Revision
April 2023	
Week 1	Meeting of Company - Essentials of valid meeting.
Week 2	Meetings of Shareholders: - Statutory meeting, Annual general meeting, Extra-ordinary general meeting
Week 3	meetings of board of directors: Proxy Voting, Notice, Agenda and Minutes of meetings
Week 4	Directors - Duties, Powers, Liabilities, Appointment and removal of directors, Revision
May 2023	
Week 1	Winding Up - Meaning
Week 2	Voluntary winding up, Compulsory winding up consequences of winding up
Week 3	Winding up under the supervision of court.
Week 4	Revision
Week 5	Revision

  
Signature of Teacher

Govt. College, Sec9, Gurugram  
Lesson Plan: February 2023-May 2023

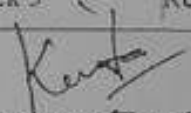
Class: B. Com (Pass) 6<sup>th</sup> Semester (B& C)

Paper: International Marketing

Name of the Assistant Professor: Kavita Dua

[Even]

February 2023	
	Topic Covered
Week 2	Nature and Concept, Domestic Vs International Marketing
Week 3	Opportunities and Challenges for marketing in International Environment
Week 4	Foreign market selection and entry modes
Week 5	International product life cycle research and information's
March 2023	
	Topic Covered
Week 1	Product designing and packaging
Week 2	Pricing process and methods
Week 3	International price quotations and payment terms
Week 4	Channel structure and test
Week 5	Selection decisions and assignment
April 2023	
	Topic Covered
Week 1	Managing channel conflicts
Week 2	Selection and appointment of foreign sales agent and assignment
Week 3	Basic export procedure and documentation and test
Week 4	Methods of International product Promotion
May 2023	
	Topic Covered
Week 1	Challenges in international advertising
Week 2	Media strategy and Web marketing
Week 3	Organizing trade fairs and exhibitions
Week 4	Revision
Week 5	Revision

  
Signature of Teacher

Govt. College, Sec9, Gurugram  
Lesson Plan: February 2023-May 2023

[Even]

Class: B. Com (Pass) 2<sup>nd</sup> Semester (C)

Paper: Business Management

Name of the Assistant Professor: Kavita Dua

February 2023	
Week	Topic Covered
Week 2	Staffing concept, nature and scope, Matching job and people
Week 3	Recruitment and Selection
Week 4	Training of employees - methods and techniques
Week 5	Motivation - concept, Theories - Maslow, Herzberg and McGregor
March 2023	
Week	Topic Covered
Week 1	Motivation - Quchi and other theories
Week 2	Financial and Non-Financial Incentives
Week 3	Leadership concept and Leadership styles
Week 4	Leadership Theories and tests
Week 5	Communication Concept, Nature and assignment
April 2023	
Week	Topic Covered
Week 1	Types and Process, Barriers and Remedies
Week 2	Control Concept, Process and test
Week 3	Control Techniques, Effective Control System and test
Week 4	Management of Change Concept and Nature
May 2023	
Week	Topic Covered
Week 1	Process of Planned Change, Resistance to Change and assignment
Week 2	Emerging Horizons of management in a changing environment
Week 3	Revision
Week 4	Revision
Week 5	Revision



Signature of Teacher

Govt.College,Sec9,Gurugram  
Lesson Plan: February 2023-May 2023

[Even]

Class: B. Com (Pass) 2<sup>nd</sup> Semester (B)

Paper: Financial Accounting

Name of the Assistant Professor: Kavita Dua

February 2023	
Week	Topic Covered
Week 2	Meaning, Terms and characteristics of Hire Purchase System, Difference between HPP and Credit Sales Methods of HPP, Explain first method of HPP and necessary accounts
Week 3	Calculation of cash price with its solved illustrations and Calculation of interest by different methods
Week 4	Transfer of asset to third party, Sale of asset by Hire purchaser and Numerical problems
Week 5	Second method, Asset actual method, Goods of small value, Preparation of hire purchase trading account and Numerical problems
March 2023	
Week	Topic Covered
Week 1	Stock and debtors system in HPP and Numerical problems
Week 2	Branch Accounts, Meaning, types and its methods, Debtors method and numerical problems
Week 3	Final account method, Stock and debtor system and test
Week 4	Independent branches, Incorporation entries in the books of head office by different methods, Special transaction between head office and branch, Interbranch transaction and foreign branch
Week 5	Meaning of Department account, Difference between departmental accounts and branch accounts, Departmental trading and P & L account, General profit and loss account, Allocation of expense with its solved illustrations, Interdepartmental transactions with its solved illustrations
April 2023	
Week	Topic Covered
Week 1	Dissolution of Partnership firm, Meaning, modes and accounting procedure of dissolution firm and Numerical problems
Week 2	Insolvency of partner, Rule of garnery vs murray with its solved illustrations
Week 3	Joint venture accounts, Joint venture accounting treatment and assignment
Week 4	Accounting treatment of maintaining joint venture methods, Joint bank method with its solved illustrations
May 2023	
Week	Topic Covered
Week 1	Amalgamation and sale of partnership firm to a company, accounting records in the books of old and new firm, Sale of partnership firm to a company, accounting records in the books of partnership firm
Week 2	Royalty accounts, Meaning, types, difference between rent and royalty, Important terms of royalty, Royalty in connection with mines and illustration
Week 3	Recoupment of each year's short working and practical problems
Week 4	Sublease with its solved illustrations, accounting records in connection with oil wells and test
Week 5	Royalty in connection with brick making and patents

  
Signature of Teacher

Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (Pass) – 6th Semester  
Lesson Plan: from February 2023 to May 2023

Nomenclature of the Paper: Cost Accounting II  
Name of Faculty : Dr. Shubhra Jain

Feb 2023 Topic to be Covered	
Week 2	Process Costing Introduction & Concept with examples
Week 3	Treatment of Wastage including example
Week 4	Treatment of stock & Inter process profits with practical problems
Week 5	Joint and By product with practical problems & queries session
March 2023 Topic to be Covered	
Week 1	Contact Costing Introduction with workings, Test 1
Week 2	Problem discussion on Contract Costing
Week 3	Escalation clause, Contact near completion, cost plus contract with practicals & job and batch costing
Week 4	Budgetary Control Introduction, Limitations, Forecasts of budgetary Control, classification of budget with practicals.
Week 5	Query sessions, Assignment 1 distribution
April 2023 Topic to be Covered	
Week 1	Performance budgeting, zero based budgeting, responsibilities accounting
Week 2	Standard Costing: Material Variance Analysis
Week 3	Standard Costing: Labour Variance Analysis
Week 4	Query sessions, Test 2
May 2023 Topic to be Covered	
Week 1	Marginal Costing: concept with practical, Decision making with practical, Assignment 2 distribution
Week 2	Cost volume profit analysis with practical
Week 3	Revision & Query sessions
Week 4 & 5	Revision & Query sessions

*Shubhra*

Feb 2023 Topic to be Covered	
Week 2	Institute of Cost Accountants of India: Introduction, objectives: Cost accounting standard board: Introduction, objectives and functions.
Week 3	Generally accepted cost accounting principles: introduction, conceptual framework, objectives, scope, nature of content and format.
Week 4	Cost Accounting Standards(CAS): need and statutory recognition of CAS. Overall recommendations of B. B. Goyal expert committee.
Week 5	Classification of cost (CAS-1), Overheads (CAS- 3), Material cost (CAS-6)
March 2023 Topic to be Covered	
Week 1	Employee cost (CAS-7), Direct expenses (CAS -10) , Administrative overheads (CAS-11) , Test 1
Week 2	Repairs and maintenance cost (CAS-12), cost of service cost center (CAS – 13) . Selling and distribution overheads (CAS-15)
Week 3	Depreciation and amortization ( CAS – 16) , Research and development costs ( CAS-18) joint costs (CAS-19) , Assignment 1
Week 4	capacity determination (CAS-2), cost of production for captive consumption (CAS-4),
Week 5	Determination of average (equalized) cost of transportation (CAS-5), cost of utilities ( CAS-8)
April 2023 Topic to be Covered	
Week 1	packing material cost (CAS-9), pollution control cost(CAS -14)
Week 2	Interest and financing charges (CAS-17) , Royalty and technical know – how fee (CAS- 20) , Quality control ( CAS-21)
Week 3	Manufacturing cost (CAS-22), Latest amendments and development in CAS , Assignment 2
Week 4	Cost auditor –appointment, eligibility, remuneration, rights and responsibilities, functions, appointing authorities. , Test 2
May 2023 Topic to be Covered	
Week 1	Cost Audit: nature, scope, advantages, genesis, types, relevance, cost audit, difference between cost audit and cost investigation.
Week 2	Cost audit standards : CAS 101 – planning on audit of cost statement, CAS -102 – cost audit documentation , CAS 103 – overall objectives of independent cost auditor . CAS -104 knowledge of business, its process and the business environment.
Week 3	Cost accounting records, general features of cost accounting records, companies ( cost records and audit ) rules 2014 , Presentations
Week 4 & 5	Presentations & Queries

Shubhra

**Feb 2023 Topic to be Covered**

Week 2	Indian Partnership Act 1932 : Introduction, nature , test and Kinds of partnership
Week 3	Partnership deed , kinds ,Rights & Duties of a partner, Relations of partners to third parties
Week 4	Position of a minor partner, Incoming partner and provisions, Outgoing partner and provisions & Registration of a firm
Week 5	Dissolution of firm : concept , modes, Consequences . Liabilities of a partner after dissolution & modes of settlement of accounts

**March 2023 Topic to be Covered**

Week 1	Negotiable Instruments: Introduction ,Characteristics ,Presumptions, Promissory notes & Bill of exchange
Week 2	Cheque : concept , Marking of cheque, Different types of negotiable instruments & Maturity of negotiable instruments
Week 3	Payments in due course ,interest, Parties to NI ,Privileges of a holder in due course: Capacity of parties ,Liabilities Presentation of a NI for acceptance
Week 4	Presentation of a NI : for sight & payment ,Negotiation , Endorsement,
Week 5	Discharge of instruments , Parties Dishonor of a NI, Noting & protesting Assignment I

**April 2023 Topic to be Covered**

Week 1	Sale of Goods Act, 1930 ; Introduction & Essentials ,Sale & agreement to sell
Week 2	Subject matter of contract , Price, Conditions & warranties , Caveat emptor & Transfer of ownership
Week 3	Sale by non owners , Performance of the contract & Rights of unpaid seller against the goods
Week 4	Rights of unpaid seller against the buyer personally & Consequences of breach of the contract of sale

**May 2023 Topic to be Covered**

Week 1	Right of information act , 2005 : Introduction & procedure
Week 2	Revision , Assignment 2
Week 3	Revision
Week 4 & 5	Revision

*Shubhra*



Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (Hons) – 6th Semester

Nomenclature of the Paper: HRM

Lesson Plan: from Feb 2023 to May 2023

Name of Faculty : Dr. Shubhra Jain

Feb 2023 Topic to be Covered	
Week 2	HRM : Definition; Importance; Objective & Scope
Week 3	HRM: Functions, TQM, BPR
Week 4	HRP : Definition, Nature, Importance, Objective, Factors & Process
Week 5	HR Analysis & recent trends in HRP
March 2023 Topic to be Covered	
Week 1	Recruitment
Week 2	Selection
Week 3	Training
Week 4	Methods of training
Week 5	Management Development; Assignment 1
April 2023 Topic to be Covered	
Week 1	Wage & Theories of wage
Week 2	Methods of wage payment
Week 3	Wage Incentives
Week 4	HRD
May 2023 Topic to be Covered	
Week 1	Industrial Relations
Week 2	Industrial Unrest; Assignment 2
Week 3	Revision
Week 4 & 5	Revision

*Shubhra*

Govt. College, Sec 9, Gurugram

Lesson Plan: 2022-23

Class: B. Com (Pass) 3rd Semester (Sec-B)

Name of the Assistant Professor: Minakshi

Subject: Business Regulatory Framework

1

AUG 2022	
Week 4	Indian Contract Act: - Valid contract and its elements; Void and void able agreements; Void and illegal agreements; Offer and acceptance
Week 5	Contractual capacity of parties; Free consent of parties; Lawful consideration and object; Agreements expressly declared as void
SEP 2022	
Week 1	Contingent Contracts: - Quasi contracts; Discharge of contracts: - methods of discharge of contracts
Week 2	Consequences of Breach of contracts
Week 3	Contract of Indemnity and guarantee: - Elements of contract of Indemnity
Week 4	Rights and Liabilities of surety; Discharge of surety; Difference between contract of indemnity and Guarantee
Week 5	Revision
OCT 2022	
Week 1	Contract of Bailment and Pledge: - Meaning; types of bailment
Week 2	Termination of bailment, Duties and rights of bailor and bailee
Week 3	Essentials of pledge, who may pledge, Rights and Duties of Pawnor and Pawnee.
Week 4	Revision
NOV 2022	
Week 1	Consumer protection Act 1986
Week 2	Salient features of consumer Protection Act
Week 3	Rights of consumers; consumer Protection councils
Week 4	consumer disputes redressal machinery
DEC 22	
Week 1	Assignment
Week 2	Revision
Week 3	Revision
Week 4	Test
Week 5	Revision

Minakshi

(MINAKSHI)

Govt. College, Sec 9, Gurugram  
Lesson Plan: 2022-23

Class: B. Com (Pass) 3rd Semester (Sec-A/C)

Name of the Assistant Professor: Minakshi

Subject: Business Statistics

AUG 2022	
Week 4	Introduction of Statistics: Origin, Development, Definition, Scope, Uses and Limitations.
Week 5	Statistical Data: Types of Measurement scales- normal, Ordinal, Interval and Ratio level measurement
SEP 2022	
Week 1	Collection, Classification and Tabulation of Primary and Secondary data.
Week 2	Diagrammatic and Graphical presentation of Data-Bar, Squares, rectangular and Circular diagrams: Histogram
Week 3	Frequency polygon, Ogives, Stem and Leaf displays box plots
Week 4	Revision
Week 5	Revision
OCT 2022	
Week 1	Central Tendency and Partition values; Concept and Measures of Central tendency
Week 2	Quartiles, Deciles, Percentiles
Week 3	Dispersion: Concept and its absolute as well as relative measures.
Week 4	Revision
NOV 2022	
Week 1	Moments, Skewness and Kurtosis: Moments about any point and about mean and the relationship between them
Week 2	Sheppard's Corrections for Moments
Week 3	Correlation-concept, scatter diagram, Karl Pearson's co-efficient of Correlation and its properties Spearman's rank Correlation, Concurrent deviation method
Week 4	Revision
DEC 22	
Week 1	Regression
Week 2	Regression lines, standard error of estimate, Co-efficient of determination
Week 3	Revision
Week 4	Test
Week 5	Revision

Minakshi  
(MINAKSHI)

# Department of Commerce, GC Sec-9, Gurugram

Class: B. Com. (Hons.)

Paper: BCH 3-04

Nomenclature of the Paper: Company Law

Lesson Plan: from August 2022 to December 2022

## August 2022

	Topic to be Covered
Week 4	Company- Meaning and Characteristics Features of company Types of companies
Week 5	Lifting of corporate veil

## September 2022

	Topic to be Covered
Week 1	Formation of Company - Promotion of company
Week 2	Functions of promoter importance of promoter
Week 3	Promoter's remuneration legal status of Promoter
Week 4	Rights of promoters Duties of promoters Liabilities of promoters
Week 5	Pre- incorporation contracts Incorporation of Business

## October 2022

	Topic to be Covered
Week 1	Prospectus - definition Public offer contents
Week 2	misleading prospectus and its consequences Assuiment
Week 3	Memorandum of Association - Meaning importance
Week 4	Clauses of memorandum of association and their Alteration
Week 5	Test & Revision

## November 2022

	Topic to be Covered
Week 1	Doctrine of ultra-virus
Week 2	Articles of Association - Meaning contents
Week 3	Alteration of articles of association
Week 4	Constructive notice and doctrine of indoor management

## December 2022

	Topic to be Covered
Week 1	Borrowing Powers
Week 2	Debentures
Week 3	Charges
Week 4	Revision
Week 5	Revision

[SANDEEP YADAV]

## Department of Commerce, GC Sec-9, Gurugram

Course: B.Com (Pass)-V Semester (Sec- )

Paper: BC 502

Subject: Cost Accounting

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topics to be covered
Week 4	Cost Accounting: Meaning, Features, Scope, Techniques, Methods, Objectives, Importance and Limitations
Week 5	Costing; cost accountancy; cost centres and profit centres, Difference and similarities of cost accounting system with financial accounting system.
September 2022	
	Topics to be covered
Week 1	Cost: main elements and types Material Control: Meaning and objectives of material control, material purchase procedure
Week 2	Techniques of material control: LIFO, FIFO etc. and Practical questions
Week 3	Fixation of inventory levels- reorder level, Minimum level, Maximum level, Danger level and Practical questions
Week 4	EOQ analysis. Methods of Valuing Material Issues. Wastage of material-main types and
Week 5	Practical questions
October 2022	
	Topic to be Covered
Week 1	Labour Cost Control: Importance, methods of time keeping and Time Booking; Treatment and control of Labour Turnover, Idle Time, Overtime, Systems of Wage Payment-Time Wage System and Piece Wage System.
Week 2	Incentive Wage plans-Individual plans and group plans
Week 3	Practical questions
Week 4	Overheads: Meaning and Types. Collection, Classification Allocation and Apportionment
Week 5	Diwali break
November 2022	
	Topic to be Covered
Week 1	Absorption of Overheads-Main methods and Machine Hour Rate
Week 2	Practical questions of Machine Hour Rate
Week 3	Unit and output costing: meaning and objectives; cost sheet - meaning, Performance, types, preparation of cost sheet;
Week 4	Practical questions
December 2022	
Week 1	Practical questions
Week 2	Reconciliation of cost and financial accounts: Meaning, Objectives and procedure
Week 3	Practical questions
Week 4	Revision of Unit -1&2
Week 5	Revision of Unit -3&4

Head of Department

Signature of Teacher

Sandeep Sir

## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) – III Semester (Sec - )

Paper: BC 304

Nomenclature of the Paper: Corporate Law-I

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topic to be Covered
Week 4	Company- Meaning and Characteristics, Features of company, Types of companies
Week 5	Lifting of corporate veil
September 2022	
	Topic to be Covered
Week 1	Formation of Company - Promotion of company
Week 2	Functions of promoter, importance of promoter
Week 3	Promoter's remuneration, legal status of Promoter
Week 4	Rights of promoters, Duties of promoters, Liabilities of promoters
Week 5	Pre- incorporation contracts, Incorporation of Business
October 2022	
	Topic to be Covered
Week 1	Prospectus - definition Public offer, contents
Week 2	misleading prospectus and its consequences, Assignment
Week 3	Memorandum of Association - Meaning, importance
Week 4	Clauses of memorandum of association and their Alteration
Week 5	Test & Revision
November 2022	
	Topic to be Covered
Week 1	Doctrine of ultra- virus
Week 2	Articles of Association - Meaning, contents
Week 3	Alteration of articles of association
Week 4	Constructive notice and doctrine of indoor management
December 2022	
	Topic to be Covered
Week 1	Borrowing Powers
Week 2	Debentures
Week 3	Charges
Week 4	Revision
Week 5	Revision

[Sandeep Yadav]

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-V [A, B, C]

Nomenclature of the Paper: Entrepreneurship and Small Scale Business

Lesson Plan: from August 2022 to December 2022

August 2022	
Week 4	Entrepreneur-Entrepreneurship-Enterprise: Conceptual issues. Entrepreneurship vs. Management. Roles and functions of entrepreneurs in relation to the enterprise and in relation to the economy
Week 5	Entrepreneurship as an interactive process between the individual and the environment
September 2022	
Week 1	Small business as the seedbed of entrepreneurship and difference b/w small and large org. and doubts resolved
Week 2	Entrepreneurial competencies. Entrepreneurial development programme and consultancy organisations
Week 3	Entrepreneurial motivation, performance and rewards and doubts resolved
Week 4	Opportunity scouting and idea generation: role of creativity & innovation and business research
Week 5	Sources of business ideas and techniques of idea generation and doubts resolved
October 2022	
Week 1	Entrepreneurial opportunities in contemporary business environment, for example opportunities in network-marketing.
Week 2	Franchising, business process outsourcing in the early 21st century and doubts resolved
Week 3	The process of setting up a small business: preliminary screening and aspects of the detailed study of the feasibility of the business idea and financing/non-financing support agencies to familiarize themselves with the policies/programmes and procedures and the available schemes
Week 4	Preparation of Project Report and Report on Experiential Learning of successful/unsuccessful entrepreneurs
Week 5	Diwali break
November 2022	
Week 1	Market survey, Preparation of questionnaire etc.
Week 2	Managerial functions in a small business
Week 3	Designing and redesigning business processes; location, layout, operations planning & control
Week 4	Basic awareness of the issues impinging on quality, productivity and environment
December 2022	
Week 1	Managing business growth. The pros and cons of alternative growth options: internal expansion, acquisitions & mergers, integration & diversification. Crises in business growth issues in small business marketing
Week 2	The concept and application of product life cycle (etc.), advertising & publicity sales & distribution management
Week 3	The idea of consortium marketing, competitive bidding/tender marketing, negotiation with principal customers
Week 4	The contemporary perspectives on Infrastructure Development, Product and Procurement Reservation
Week 5	Marketing Assistance, Subsidies and other Fiscal & Monetary Incentives National, state level and grass-root level financial and nonfinancial institutions in support of small business development

Head of Department

Signature of Teacher

*Neha*

## Department of Commerce, GC Sec-9, Gurugram

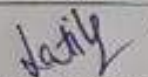
Name of Assistant Professor: Latika Gauba

Class: B. Com Pass Final(A,B,C)

Nomenclature of the Paper: ACCOUNTING FOR MANAGEMENT

August 2022	
Week 4	Nature, Scope and functions of Management Accounting
Week 5	The Management Accountant, The Controller, The Treasurer, Management Accounting Principles.
September 2022	
Week 1	Management Accounting v/s Financial Accounting vs Cost Accounting Utility of management Accounting, Limitations of Management Accounting, Tools of Management Accounting.
Week 2	Financial Statements: types and importance
Week 3	Analysis and Interpretation of Financial Statements
Week 4	Common size statements, Comparative Analysis
Week 5	Ratio Analysis, meaning and importance
October 2022	
Week 1	Liquidity ratio, Solvency ratios
Week 2	Profitability ratios, balance sheet ratios and turnover ratios.
Week 3	Advantages and limitations of ratio analysis
Week 4	Practical questions
Week 5	Diwali Vacations
November 2022	
Week 1	Cash Flow Statement Meaning, objectives
Week 2	limitations and accounting procedure
Week 3	Financial planning
Week 4	Capital Budgeting: Meaning, nature and importance
Week 5	NPV and IRR
December 2022	
Week 1	Practical problems
Week 2	Capital rationing
Week 3	Revision
Week 4	Revision
Week 5	Revision

Head of Department

  
Signature of Teacher



## Department of Commerce, GC Sec-9, Gurugram

Class; BBA 1<sup>ST</sup> SEM

Nomenclature of the Paper: FINANCIAL ACCOUNTING

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Meaning and scope of accounting, nature of financial accounting
Week 5	principles, basis of accounting
September 2022	
	Topic to be Covered
Week 1	accounting process
Week 2	PSS (Problems Solving Section)
Week 3	PSS (Problems Solving Section)
Week 4	Rectification of error
Week 5	PSS (Problems Solving Section)
October 2022	
	Topic to be Covered
Week 1	preparation of final accounts with adjustment
Week 2	PSS (Problems Solving Section)
Week 3	PSS (Problems Solving Section)
Week 4	Bank reconciliation statement
Week 5	PSS (Problems Solving Section)
November 2022	
Week 1	Account for non profit organisation
Week 2	PSS (Problems Solving Section)
Week 3	Single entry system
Week 4	PSS (Problems Solving Section)
Week 5	Joint venture account
December 2022	
Week1	PSS (Problems Solving Section)
Week2	Consignment accounts
Week3	PSS (Problems Solving Section)
Week4	Revision
Week5	Revision

  
Signature of teacher

DR BHAVANA YADAV  
COMMERCE DEPARTMENT

## Department of Commerce, GC Sec-9, Gurugram

Class; BBA 3<sup>rd</sup> SEM

Nomenclature of the Paper: Cost and Management accounting

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Introduction: - Objective, elements of cost, cost sheet, importance of cost accounting
Week 5	types of costing, installation of costing system, difference between cost accounting and financial accounting
September 2022	
	Topic to be Covered
Week 1	Material Control: - Meaning and objectives of material control, material purchase procedure
Week 2	fixation of inventory levels
Week 3	Danger level and Methods of Valuing Material Issues.
Week 4	Labour Cost Control
Week 5	Idle Time, Overtime, Systems of Wage Payment
October 2022	
	Topic to be Covered
Week 1	Overhead – classification, allocation and apportionment of overhead
Week 2	Overhead – classification, allocation and apportionment of overhead
Week 3	Process Costing Fundamental, Process Losses & Gains
Week 4	Management Accounting: - Meaning, nature, scope, objective and functions; marginal costing and profit planning
Week 5	practical application of marginal costing techniques
November 2022	
Week 1	Responsibility Accounting: - types of responsibility centres
Week 2	performance evaluation criteria, responsibility reporting
Week 3	budgeting – role of budgets and budgeting in organizations
Week 4	budgeting process, operational and financial budgeting
Week 5	
December 2022	
Week1	Nature and types of Financial Statements; techniques of financial statement analysis
Week2	ratio analysis, fund flow and cash flow analysis
Week3	techniques in performance measurement
Week4	Management accounting information for activity
Week5	Revision

Signature of teacher



DR. BHAVANA YADAV

COMMERCE DEPARTMENT

Department of Commerce, GC Sec-9, Gurugram

Course: BBA 3<sup>rd</sup> SEM

Title: Syllabus: Environmental studies

Duration: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Environmental studies – Nature, scope and importance
Week 5	need for public awareness; natural resources
September 2022	
	Topic to be Covered
Week 1	use and overexploitation/over-utilization of various resources
Week 2	role of an individual in conservation of natural resources
Week 3	equitable use of resources for sustainable lifestyles
Week 4	Ecosystems – concept, structure and function of an ecosystem
Week 5	energy flow in the ecosystem
October 2022	
	Topic to be Covered
Week 1	Environmental Pollution
Week 2	noise pollution, thermal pollution, nuclear hazards; solid waste management – causes, effects and control measures of urban and industrial wastes
Week 3	role of an individual in prevention of pollution
Week 4	Social issues and the environment
Week 5	water conservation, rain water harvesting, watershed management
November 2022	
Week 1	its problems and concerns; climate change, global warming
Week 2	nuclear accidents and holocaust
Week 3	Wasteland reclamation, consumerism and waste products
Week 4	Environmental legislation – Environment Protection Act
Week 5	Air (prevention and control of pollution) Act.
December 2022	
Week 1	Water (prevention and control of pollution) Act
Week 2	Wildlife Protection Act
Week 3	Forest Conservation Act
Week 4	Revision
Week 5	Revision

  
Signature of teacher

DR. BHAVANA YADAV  
COMMERCE DEPARTMENT

## Department of Commerce, GC Sec-9, Gurugram

Class; BBA 5<sup>th</sup> SEM

Nomenclature of the Paper Presentation Skills & Personality Development

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Introduction – Meaning, types of presentation: presentation that deeply involves the audience
Week 5	presentation that creates excitement, persuasive presentation, presentation evoking emotional appeal
September 2022	
	Topic to be Covered
Week 1	presentation that sells a new idea, humorous presentation.
Week 2	planning a presentation – analysing the audience
Week 3	location of presentations, objective of presentation
Week 4	structuring the presentation, presentation notes and session plan
Week 5	Methods of presentation – Fish bowl, role plays, group discussion
October 2022	
	Topic to be Covered
Week 1	presentation – presenter effectiveness, difficult situations
Week 2	nerves, motivation and attention. Outcomes of presentation – inspiring presentation
Week 3	presentation that builds trust, presentation that offers a solution
Week 4	Concept of personality, personality consciousness, personality patterns, personality syndrome; symbols of self, clothing
Week 5	names and nicknames, speech, age, success, reputation, moulding the personality pattern, persistence and change
November 2022	
Week 1	Personality determinants – physical intellectual, emotional
Week 2	social determinants, aspirations and achievements
Week 3	educational determinants and family determinants
Week 4	Personality development – healthy personalities
Week 5	developing self-awareness, managing personal stress
December 2022	
Week 1	Revision
Week 2	Revision
Week 3	Revision
Week 4	Revision
Week 5	Revision

OR BHAVANA YADAV  
COMMERCE DEPARTMENT

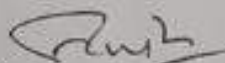
**Department of Commerce, GC Sec-9, Gurugram**

**Class; BBA 1<sup>ST</sup> SEM**

**Nomenclature of the Paper: BUSINESS ORGANISATION**

**Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022**

August 2022	
	Topic to be Covered
Week 4	Business – Concept
Week 5	nature and scope, business as a system, business objectives
September 2022	
	Topic to be Covered
Week 1	distinction between business, commerce and trade
Week 2	Forms of business organization – Sole proprietorship
Week 3	partnership
Week 4	joint stock company
Week 5	types of company cooperative societies
October 2022	
	Topic to be Covered
Week 1	multinational corporations
Week 2	Entrepreneurship – Concept and nature
Week 3	entrepreneurial opportunities in contemporary business environment
Week 4	process of setting up a business enterprise
Week 5	choice of a suitable form of business organization
November 2022	
Week 1	business and environment interface
Week 2	feasibility and preparation business plan
Week 3	Government and business interface; stock exchange in India
Week 4	business combination – concept and causes
Week 5	chambers of commerce and industries in India – FICCI, CII Association
December 2022	
Week 1	Revision
Week 2	Revision
Week 3	Revision
Week 4	Revision
Week 5	Revision



Signature of Teacher

**ANITA NIHALIYA**  
(Commerce Department)

## Department of Commerce, GC Sec-9, Gurugram

Class; BBA 5<sup>TH</sup> SEM

Nomenclature of the Paper: PRODUCTION AND MATERIAL MANAGEMENT

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Production economics: introduction, evaluation,
Week 5	major long term and short-term decisions; objectives, importance and activities
September 2022	
	Topic to be Covered
Week 1	differences between products and services. Meaning and types of production systems
Week 2	production to order and production to stock; plant location
Week 3	factors affecting location and evaluating different locations
Week 4	Production planning and control, objectives, advantages
Week 5	elements. PPC and production systems
October 2022	
	Topic to be Covered
Week 1	sequencing and assignment problems
Week 2	Inventory control: objectives
Week 3	advantages and techniques (EOQ model and ABC analysis)
Week 4	quality control: meaning and importance, inspection
Week 5	quality control charts for variables and attributes
November 2022	
Week 1	Materials Management: meaning, objectives, importance
Week 2	functions and organization materials information system
Week 3	standardization, simplification and variety reduction
Week 4	value analysis and engineering
Week 5	Stores Management: meaning
December 2022	
Week 1	objectives, importance and functions stores layout
Week 2	classification and codification; inventory control of spare parts
Week 3	materials logistics warehousing management
Week 4	materials handling, traffic and transportation; disposal of scrap
Week 5	surplus and obsolete materials

Signature of Teacher

ANITA NIHALAVA  
(Commerce Department)


# Department of Commerce, GC Sec-9, Gurugram

Class; BBA 3<sup>rd</sup> SEM

Nomenclature of the Paper: DISASTER MANAGEMENT

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Structure of the atmosphere; Pressure, temperature, precipitation, cloud classification and formation; calories force
Week 5	El Nino phenomenon; western disturbance; energy model and budget of the earth. Primary differentiation
September 2022	
	Topic to be Covered
Week 1	formation of core, mantle, crust, atmosphere and hydrosphere
Week 2	erosion; transportation deposition of earth's material by running water, river meandering and formation of ox-bow lak
Week 3	Depletion of natural capital; development as causes of disaster
Week 4	epidemics; industrials accidents and chemical releases multipurpose
Week 5	humanitarian assistance in emergencies
October 2022	
	Topic to be Covered
Week 1	flood hydrographs, dams barrages and rivers diversions,
Week 2	impact on flora and fauna. Landslides- landslide analysis
Week 3	Coastal hazards- tropical cyclone, coastal erosion, sea level changes
Week 4	Climate change- Emissions and global warming, impact on sea level
Week 5	Earth quakes- preliminary concepts, seismic waves, travel-time
November 2022	
Week 1	a seismic designing, quake resistant building and dams. Tsunamis- causes and location of tsunamis
Week 2	disturbance in sea floor and release of energy
Week 3	travel time and impact on fragile coastal environment volcanoes
Week 4	causes of volcanism, volcanism materials
Week 5	geographic distribution of volcanoes
December 2022	
Week1	revision
Week2	Revision
Week3	Revision
Week4	Revision
Week5	Revision

  
Signature of teacher

ANITA NIHALAYA  
(Commerce Department)

# Department of Commerce, GC Sec-9, Gurugram

Class; BBA 5<sup>th</sup> Sem

Nomenclature of the Paper: INDIAN BUSINESS ENVIRONMENT

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Nature, components and determinants
Week 5	Basic nature of Indian economic system
September 2022	
	Topic to be Covered
Week 1	growth of public and private corporate sector
Week 2	social responsibility of business
Week 3	economic reforms since 1991 – an overview
Week 4	Review of industrial policy developments and pattern of industrial growth since 199
Week 5	industrial licensing policy; public sector reforms; privatization
October 2022	
	Topic to be Covered
Week 1	growth and problems of SMEs; industrial sickness
Week 2	Development banking: an overview and current developments;
Week 3	the role of SEBI, banking sector reforms
Week 4	challenges facing public sector banks; growth
Week 5	changing structure of non-bank financial institutions
November 2022	
Week 1	Trend and pattern of India's foreign trade and balance of payments
Week 2	latest foreign trade policy; India's overseas investments
Week 3	globalization trends in Indian economy
Week 4	policy towards foreign direct investment
Week 5	role of MNCs
December 2022	
Week1	impact of multilateral institutions (IMF, World Bank and WTO) on Indian business environment
Week2	Revision
Week3	Revision
Week4	Revision
Week5	Revision

  
Signature of teacher

ANITA NIHALAYA  
[Commerce Department]



## Department of Commerce, GC Sec-9, Gurugram

**Class:** B. Com (Hons.) – I Semester

**Paper:** BCH 104

**Nomenclature of the Paper:** An Introduction to Accounting

**Lesson Plan:** from August 2022-December 2022

August 2022	
	Topic Covered
Week 4	Accounting meaning, objectives functions, advantages limitations branches
	bases of accounting Accounting as an information system, users needs
Week 5	Qualitative characteristics of accounting information Generally accepted Accounting Principles
September 2022	
	Topic Covered
Week 1	Accounting Process: Journal, Ledger, Cash and other subsidiary books
Week 2	preparation of trial balance Capital and revenue expenditures and receipts
Week 3	Depreciation nature, causes of depreciation factors in the measurement of depreciation
Week 4	accounting concept of depreciation, methods of computing depreciation-
Week 5	diminishing balance method, change of method
October 2022	
	Topic Covered
Week 1	disposal of depreciable assets Salient features (AS) 6
Week 2	sectional balancing system, Preparation of financial statements
Week 3	Financial Statements of non-corporate business entities
Week 4	Financial Statements of not-for-profit organizations
Week 5	Diwali Break
November 2022	
	Topic Covered
Week 1	Accounting Errors meaning, types and their rectification
Week 2	Practicals
Week 3	Revision
Week 4	Test
December 2022	
	Topic Covered
Week 1	Accounting trans Financial accounting standards concept, benefits, procedure for issuing accounting standards in India
Week 2	Assignment
Week 3	Test
Week 4	Revision
Week 5	Revision

*Shaili Soni*  
A

## Department of Commerce, GC Sec-9, Gurugram


Class: B. Com (General) – III Semester (Sec- C )

Paper: BC 306 (ii)

Nomenclature of the Paper: Basics of Retailing

Lesson Plan: from August 2022-December 2022

August 2022	
	Topic to be Covered
Week 4	Introduction Meaning, nature, scope, importance, growth and present size Career option in retailing
	Technology induction in retailing
Week 5	Future of retailing in India
	Types of Retailing Stores classified by owners
September 2022	
	Topic to be Covered
Week 1	Stores classified by merchandising categories. Wheel of retailing.
Week 2	Traditional retail formats vs modern retail formats in India.
Week 3	Store and non-store-based formats
Week 4	Cash and carry business - Meaning, nature and scope
Week 5	Retailing models – Franchiser - franchisee, directly owned
October 2022	
	Topic to be Covered
Week 1	Wheel of retailing and retailing life cycle
Week 2	Co-operation and conflict with other retailers
Week 3	Management of Retailing Operations Retailing management
Week 4	the total performance model, Functions of retail management
Week 5	Diwali break
November 2022	
	Topic to be Covered
Week 1	Retail planning - importance and process
Week 2	Developing retailing strategies, objectives
Week 3	action plans
Week 4	pricing strategies
December 2022	
	Topic to be Covered
Week 1	Test.
Week 2	Presentations of Topics
Week 3	Revision
Week 4	Revision
Week 5	Test

*Shaili Soni*  


## Department of Commerce, GC Sec-9, Gurugram

Class: BCOM PASS SEM 5

NAME OF THE ASSISTANT PROFESSOR- SHAILI SONI

Nomenclature of the Paper: INVESTMENT MANAGEMENT

SECTION - A AND B

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Investment meaning, avenues alternatives
Week 5	Risk and return CAPM and APT
September 2022	
	Topic to be Covered
Week 1	EMH, types of EMH
Week 2	Technical analysis, meaning, strength
Week 3	Revision of both
Week 4	Charts and indicator
Week 5	revision
October 2022	
	Topic to be Covered
Week 1	Fundamental analysis, company analysis
Week 2	Industry and economy analysis
Week 3	Revision of both
Week 4	Assignment, presentation
Week 5	Secondary market introduction
November 2022	
Week 1	Eligibility criteria of company listing in stock exchange
Week 2	NSE, BSE
Week 3	History of stock exchanges
Week 4	Trading mechanism of exchange
Week 5	revision
December 2022	
Week 1	Option market
Week 2	Call option
Week 3	Put option
Week 4	revision
Week 5	SEBI and mutual fund

Head of Department

Shaili Soni  


## Department of Commerce, GC Sec-9, Gurugram

Class; BBA 1<sup>ST</sup> SEM

Nomenclature of the Paper: BUSINESS COMMUNICATION

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Business Communication – Nature and process
Week 5	forms of communication, role of communication skills in business
September 2022	
	Topic to be Covered
Week 1	barriers to communication
Week 2	Communication Skills: Listening skills
Week 3	cognitive process of listening, barriers to listening
Week 4	reading skills, speaking skills
Week 5	
October 2022	
	Topic to be Covered
Week 1	public speaking
Week 2	voice modulation
Week 3	body language
Week 4	Written Communication – Types, structures
Week 5	layout of business letters; presentative letters
November 2022	
Week 1	sales letters, claim letters, employment letters
Week 2	writing memo
Week 3	notice and circular
Week 4	Business Reports – Purpose and types, framework of business reports
Week 5	presentation of reports
December 2022	
Week 1	brochures, issuing notice
Week 2	agenda of meeting and recording of minutes of meetings
Week 3	Revision
Week 4	Revision
Week 5	Revision

Signature of teacher

RITU PHOGAT  
(Commerce Department)

## Department of Commerce, GC Sec-9, Gurugram

Class: BBA 3<sup>rd</sup> SEM

Nomenclature of the Paper: Marketing Management

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Introduction to Marketing; difference between marketing and selling
Week 5	core concepts of marketing
September 2022	
	Topic to be Covered
Week 1	marketing mix
Week 2	marketing process
Week 3	marketing environment
Week 4	Determinants of consumer behaviour; consumer's purchase decision
Week 5	process (exclude industrial purchase decision process)
October 2022	
	Topic to be Covered
Week 1	market segmentation; target marketing; differentiation
Week 2	positioning; marketing research
Week 3	marketing information system
Week 4	Product and product line decisions; branding decisions
Week 5	packaging and labelling decisions
November 2022	
Week 1	product life cycle concept
Week 2	new product development
Week 3	pricing decisions
Week 4	Marketing channels: - retailing, wholesaling, warehousing
Week 5	customer relationship marketing
December 2022	
Week 1	promotion mix: - personal selling
Week 2	advertising, sales promotion, publicity
Week 3	Public relation
Week 4	Revision
Week 5	Revision

Signature of teacher

RITU PHOGAT  
(Commerce Department)

# Department of Commerce, GC Sec-9, Gurugram

Class; BBA 3<sup>rd</sup> SEM

Nomenclature of the Paper: capital market

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Meaning, nature and role of capital market, features
Week 5	reforms in the capital market
September 2022	
	Topic to be Covered
Week 1	regulatory framework of capital market
Week 2	capital market instruments
Week 3	innovation in financial instruments
Week 4	Primary capital market scenario in India
Week 5	methods of raising resources from primary market; secondary market scenario in India
October 2022	
	Topic to be Covered
Week 1	reforms in secondary market, organization and management, trading and settlement
Week 2	reforms in secondary market, organization and management, trading and settlement
Week 3	listing of securities, stock market index
Week 4	steps taken by SEBI to increase liquidity in the stock market
Week 5	Meaning, need and benefits of depository system in India, difference between demat and physical share
November 2022	
Week 1	depository process, functioning of NSDL and SHCIL Importance of Debt market in capital market
Week 2	participant in the debt market
Week 3	types of instrument treated in the Debt market
Week 4	primary and secondary segments of debt market
Week 5	Role and policy measures relating to development banks and financial institution in India
December 2022	
Week1	products and services offered by IFCI, IDBI, IIBI
Week2	SIDBI, IDFC, EXIM Bank
Week3	NABARD and ICICI Meaning and benefits of mutual funds
Week4	types of mutual funds, SEBI guidelines relating to mutual funds
Week5	Revision

Signature of teacher

*RITU PHOAT*  
(Commerce Department)

**Department of Commerce, GC Sec-9, Gurugram**

Class; BBA 3<sup>rd</sup> SEM

Nomenclature of the Paper: company law

Lesson Plan: FROM AUGUST 2022 TO DECEMBER 2022

August 2022	
	Topic to be Covered
Week 4	Company – Meaning, Features, Kinds
Week 5	Registration & Incorporation
September 2022	
	Topic to be Covered
Week 1	Memorandum of association
Week 2	Articles of association
Week 3	Prospectus
Week 4	Share ,kinds of shares
Week 5	Allotment and issue of share
October 2022	
	Topic to be Covered
Week 1	Share capital
Week 2	Share certificate and share warrant
Week 3	Transfer and transmission of shares
Week 4	Calls on shares, forfeiture ,surrender and lien
Week 5	Debentures
November 2022	
Week 1	Company administration
Week 2	Company administration
Week 3	Company's meetings and resolution
Week 4	Meeting's procedure or requisites of valid meeting
Week 5	Prevention of oppression and mismanagement
December 2022	
Week1	Winding up of the company
Week2	Revision
Week3	Revision
Week4	Revision
Week5	Revision

*Ritu*  
Signature of teacher

RITU PHOCHIAT  
(Commerce Department)

# Department of Commerce, GC Sec-9, Gurugram

Class: M. Com (P) – 1<sup>st</sup> Semester

Nomenclature of the Paper: STATISTICAL ANALYSIS FOR BUSINESS

Lesson Plan: from Oct. 2022 to Jan 2023

Dr. Vandana Dangi

Oct. 2022	
	Topic to be Covered
Week 3	Partial Correlation
Week 4	Multiple Correlation
Week 5	Regression (Up to three variables)
Nov. 2022	
	Topic to be Covered
Week 1	Probability distribution-Introduction
Week 2	Binomial distribution
Week 3	Poisson Distribution
Week 4	Normal Distribution
Week 5	Applications of Probability Distribution to Business
Dec. 2022	
	Topic to be Covered
Week 1	Sampling tests - Large and small
Week 2	Z-Test: Introduction, assumptions and numericals
Week 3	T-Test: Introduction, assumptions and numericals
Week 4	Analysis of Variance: Introduction, assumptions and numericals
Week 5	Non-Parametric Tests
Jan. 2023	
	Topic to be Covered
Week 1	Association of Attributes
Week 2	Chi Square Test as parametric test: Introduction, assumptions and numericals & Chi Square Test as non-parametric test: Introduction, assumptions and numericals

*Vandana*

Signature of Teacher



# Department of Commerce, GC Sec-9, Gurugram

Class: M. Com (F) – 3<sup>rd</sup> Semester

Nomenclature of the Paper: PORTFOLIO MANAGEMENT

Lesson Plan: from Aug. 2022 to Dec. 2022

Dr. Vandana Dangi

Aug.2022	
	Topic to be Covered
Week 4	Portfolio: Meaning and Benefits, Rationale of Diversification in Investments.
Week 5	Portfolio Risk and Return
Sep.2022	
	Topic to be Covered
Week 1	Markowitz's model (Efficient Market Frontier); Risk less lending and Borrowings.
Week 2	Sharpe's Single Index Model
Week 3	Sharpe's Optimal Portfolio
Week 4	Capital Asset Pricing Model
Week 5	Empirical Analysis of models
Oct. 2022	
	Topic to be Covered
Week 1	Factor Models
Week 2	Arbitrage Pricing Theory
Week 3	Performance Evaluation
Week 4	Techniques of Portfolio Revision
Week 5	Diwali Break
Nov.2022	
	Topics to be covered
Week 1	Emotional and Social Influences
Week 2	Market inefficiency
Week 3	Strategies of Benjamin Graham
Week 4	Strategies of Warren Buffett
Week 5	Strategies of John Templeton & Peter Lynch
Dec 2022	
	Topics to be covered
Week 1	Strategies of George Soros & David Dreman
Week 2	Strategies of Charles Ellis
Week 3	Strategies of Indian Money Monarchs
Week 4	Strategies of Indian Money Monarchs
Week 5	Basic guidelines for Investment Decisions

*Vandana*

Signature of Teacher

# Department of Commerce, GC Sec-9, Gurugram

Class: M. Com (F) – III Semester

Nomenclature of the Paper: INTERNATIONAL FINANCE

Lesson Plan: from Aug. 2022 to Dec. 2022

Dr. Vandana Dangi

Aug.2022	
	<b>Topic to be Covered</b>
Week 4	International Finance: - Meaning, Nature and Importance
Sep.2022	
	<b>Topic to be Covered</b>
Week 1	Bretton Woods Conference and afterwards developments
Week 2	I.M.F.
Week 3	World Bank
Week 4	Methods of International Investments
Week 5	Balance of Payments and its Components
Oct. 2022	
	<b>Topic to be Covered</b>
Week 1	Current Trends in International Trade and Finance
Week 2	International Flow of Goods, Service and Capital Coping with Current Account Deficit
Week 3	International Monetary System: Developments, Gold Standard, Bretton Wood System
Week 4	Fixed Parity System
Week 5	Diwali Break
Nov.2022	
	<b>Topics to be covered</b>
Week 1	Smithsonian Arrangement, Exchange Rate Regime since 1973
Week 2	Floating system
Week 3	Managing the Multinational Financial System
Week 4	Transfer-pricing and tax evasion
Dec 2022	
	<b>Topics to be covered</b>
Week 1	International liquidity
Week 2	International Capital and Money Market Instruments
Week 3	Parity Conditions in International Finance
Week 4	PPP – Theory
Week 5	The Fisher- Effect

*Vandana*

Signature of Teacher

**Department of Commerce, GC Sec-9, Gurugram**

**Class: B. Com (H) – 5th Semester**

**Nomenclature of the Paper: Investment Analysis**

**Lesson Plan: from Aug. 2022 to Dec. 2022**

**Dr. Vandana Dangi**

Aug.2022	
	<b>Topic to be Covered</b>
Week 4	Investment Overview: Meaning, Nature and Process
Week 5	Investment Avenues
Sep.2022	
	<b>Topic to be Covered</b>
Week 1	Indian Securities Market and its Participants
Week 2	Trading in BSE
Week 3	Trading in NSE
Week 4	Concept and Measurement of Investment Risk and Return
Week 5	Impact of Taxes and Inflation on Return
Oct. 2022	
	<b>Topic to be Covered</b>
Week 1	Securities and Exchange Board of India (SEBI)
Week 2	Investor Protection and Education
Week 3	Fundamental Analysis
Week 4	Company Analysis and Industry Analysis
Week 5	Diwali break
Nov.2022	
	<b>Topics to be covered</b>
Week 1	Economy Analysis
Week 2	Efficient Market Theory or Hypothesis
Week 3	Equity Valuation
Week 4	Bond Valuation
Week 5	Empirical evidence of theories
Dec 2022	
	<b>Topics to be covered</b>
Week 1	Derivatives
Week 2	Options
Week 3	Investment strategies of Indian Money Monarchs
Week 4	Investment strategies of Global Money Monarchs
Week 5	Latest trends in investment analysis

*Vandana*

**Signature of Teacher**

## Department of Commerce, GC Sec-9, Gurugram

Class: M. Com (P) – 1st Semester

Nomenclature of the Paper: Principles of management

Lesson Plan: from Oct. 2022 to Jun 2023 Dr. Kaushal kumari

Oct. 2022	
	Topic to be Covered
Week 1	
Week 2	
Week 3	Schools of Management thoughts :Scientific, Process, Human behaviour
Week 4	Social system school, Decision theory school and Quantitative and System school.
Week 5 /6	Diwali break, Contingency theory, Managerial functions
Nov.2022	
	Topic to be Covered
Week 1	Organization –concepts, theories. Types of organisation, Authority-Responsibility
Week 2	Staffing, Directing, Coordinating
Week 3	Motivation : Theories- Maslow, Herzberg, Alderfer's ERG theory
Week 4	Theory X and Y, Vroom's expectancy theory, Equity theory
Week 5	Leadership –concept and styles
Dec. 2022	
	Topic to be Covered
Week 1	Theories of leadership- Trait theory and Behavioural theory
Week 2	Fiedler's contingency theory, Hersey and Blanchard's situational theory
Week 3	Managerial Grid, Likert's four systems of leadership
Week 4	Interpersonal and Organisational communication ,Communication process
Week 5	Assignments and Presentations.
Jan. 2023	
Week 1	Barriers to effective communication, improving communication
Week 2	Transactional analysis in communication

Head of Department

  
Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: M. Com (F) – III Semester Nomenclature of the Paper: MARKETING CONCEPTS AND DECISIONS  
Lesson Plan: from Aug. 2022 to Dec. 2022 Dr. Kaushalkumari

Aug.2022	
	Topic to be Covered
Week 1	
Week 4	Introduction: Concepts, nature, scope and importance of marketing
Week 5	Relationship mkt, Integrated mkt, Internal and Performance marketing
Sep.2022	
	Topic to be Covered
Week 1	Customer Value and Customer satisfaction, Value chain
Week 2	Strategic marketing planning: Corporate and Division Strategic
Week 3	MIS and Marketing Research
Week 4	Marketing Environment, Micro and Macro factors and Impact on marketing decisions.
Week 5	Market Segmentation
Oct. 2022	
	Topic to be Covered
Week 1	Targeting
Week 2	Consumer buying behaviour and Consumer decision making process
Week 3	Product decisions: Concepts of Product, Classification
Week 4	Major product decisions, Product line, Product Mix
Week 5	Diwali Break
Week 6	Test 1
Nov.2022	
	Topics to be covered
Week 1	Branding ;Packaging and Labelling Product life cycle
Week 2	P L C and marketing strategies ,New product Development
Week 3	Consumer adoption process, Pricing decision and strategies
Week 4	Promotion decisions, Communication process
Week 5	Publicity and Public Relation
Dec 2022	
	Topics to be covered
Week 1	Advertising Budget, Copy designing and its testing
Week 2	Media selection, Advertising Effectiveness, Sales promotion-tools and techniques
Week 3	Distribution decision, types of channels ,channel conflicts and management
Week 4	Retailing and Wholesaling ,Physical Distribution
Week 5	Test 2 and Presentations.

Head of Department

Signature of Teacher

*Kaushal*

## Department of Commerce, GC Sec-9, Gurugram

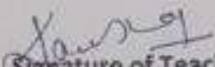
Class: B. Com (H) – Vth Semester

Nomenclature of the Paper: Money and Banking

Lesson Plan: from Aug. 2022 to Dec. 2022 Dr. Kaushal Kumari (Last 3 days of week)

Aug. 2022	
	Topic to be Covered
Week 1	
Week 4	Definition of money, its functions
Sep. 2022	
	Topic to be Covered
Week 1	Importance of money, role of money in various economic systems
Week 2	Evils of money, classification of money,
Week 3	Circular flow of money
Week 4	The Quantity theory of money - Fisher
Week 5	The Quantity theory of money - Cambridge and Keynesian theory
Oct. 2022	
	Topic to be Covered
Week 1	Test 1
Week 2	Inflation : Types of inflation
Week 3	Theories of inflation, Effects of inflation
Week 4	Control of inflation
Week 5	Diwali Break
Nov. 2022	
	Topics to be covered
Week 1	Credit, its definition, types
Week 2	Credit - merit and demerits
Week 3	Credit and Economic Development
Week 4	Functions of commercial Bank and central bank
Dec 2022	
	Topics to be covered
Week 1	Process of credit creation and its limitations
Week 2	Control of money supply
Week 3	Reserve Bank of India - role
Week 4	R.B.I - Traditional and Development functions
Week 5	Test 2 and Presentations.

Head of Department

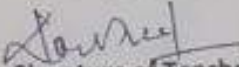
  
(Signature of Teacher)

## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (H) – 3rd Semester Nomenclature of the Paper: Principles of marketing  
Lesson Plan: from Aug. 2022 to Dec. 2022 Dr. Kaushal Kumari (First 3 days of week)

Aug.2022	
	Topic to be Covered
Week 1	
Week 2	
Week 3	
Week 4	Introduction to Marketing: meaning, nature, scope, importance
Week 5	Marketing concepts: - traditional and modern
Sep.2022	
	Topic to be Covered
Week 1	
Week 2	Consumer Behaviour: nature, scope
Week 3	Consumer Behaviour and factors comprising C.B and significance of consumer behaviour.
Week 4	Market Segmentation: concept, importance and criteria for good segmentation
Week 5	Basis for market segmentation.
Oct. 2022	
	Topic to be Covered
Week 1	
Week 2	Product: concept and classification
Week 3	Product life cycle and marketing strategies
Week 4	Branding, trade-mark
Week 5	Diwali break
Week 6	Test-1
Nov.2022	
	Topics to be covered
Week 1	New product Development
Week 2	Pricing: meaning, importance
Week 3	factors affecting product pricing and pricing strategies
Week 4	Distribution Channel: concept, role, types
Week 5	factors affecting choice of a distribution channel
Dec 2022	
	Topics to be covered
Week 1	
Week 2	Promotion and Promotion mix
Week 3	sales promotion- meaning & methods.
Week 4	Advertising: concept, importance, salient features of an effective advertising,
Week 5	Personal selling.

Head of Department

  
Signature of Teacher

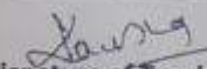
# Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (H) – III Semester Nomenclature of the Paper: Cost accounting

Lesson Plan: from Aug. 2022 to Dec. 2022 Dr. Kaushalkumari

Aug.2022	
	Topic to be Covered
Week 1	
Week 4	Cost Accounting: Meaning, nature, scope and limitations
Week 5	Concept of cost- elements and types
Sep.2022	
	Topic to be Covered
Week 1	Cost of Material, inventory control techniques
Week 2	Pricing of issue of inventory/material
Week 3	do
Week 4	Labour Cost: Idle time, Overtime, Labour turnover
Week 5	Labour cost control, incentive wage plans
Oct. 2022	
	Topic to be Covered
Week 1	Overheads: Meaning, Classification
Week 2	Allocation, Apportionment
Week 3	Absorption of overheads
Week 4	Machine hour rate
Week 5	Diwali break
Week 6	Test 1
Nov.2022	
	Topics to be covered
Week 1	Unit Costing: Operating costing-1
Week 2	do
Week 3	Unit Costing-II
Week 4	Reconciliation of cost and Financial Accounts
Week 5	
Dec 2022	
	Topics to be covered
Week 1	Contract Costing
Week 2	do
Week 3	Process costing
Week 4	-Do-
Week 5	Test 2 and Presentations.

Head of Department

  
Signature of Teacher



## Department of Commerce, GC Sec-9, Gurugram

**Class: B.Com (Hons.)-V**

**Nomenclature of the Paper: Entrepreneurship and Small Scale Business**

**Lesson Plan: from August 2022 to December 2022**

August 2022	
Week 4	Entrepreneur-Entrepreneurship-Enterprise-Conceptual issues-Entrepreneurship vs Management- Roles and functions of entrepreneurs in relation to the enterprise and in relation to the economy
Week 5	Entrepreneurship as an interactive process between the individual and the environment
September 2022	
Week 1	Small business as the seedbed of entrepreneurship and difference B/w small and large org. and doubts resolved
Week 2	Entrepreneurial competencies- Entrepreneurial development programme and consultancy organisations.
Week 3	Entrepreneurial motivation, performance and rewards and doubts resolved
Week 4	Opportunity scouting and idea generation: role of creativity & innovation and business research
Week 5	Sources of business ideas and techniques of idea generation and doubts resolved
October 2022	
Week 1	Entrepreneurial opportunities in contemporary business environment, for example opportunities in network marketing.
Week 2	Franchising, business process outsourcing in the early 21st century and doubts resolved
Week 3	The process of setting up a small business, preliminary screening and aspects of the detailed study of the feasibility of the business idea and financing/non-financing support agencies to familiarize themselves with the policies/programmes and procedures and the available schemes
Week 4	Preparation of Project Report and Report on Experiential Learning of successful/unsuccessful entrepreneurs
Week 5	Diwali break
November 2022	
Week 1	Market survey, Preparation of questionnaire etc
Week 2	Managerial functions in a small business
Week 3	Designing and redesigning business processes, location, layout, operations planning & control
Week 4	Basic awareness of the issues impinging on quality, productivity and environment
December 2022	
Week 1	Managing business growth: The pros and cons of alternative growth options: internal expansion, acquisitions & mergers, integration & diversification (crises in business growth issues in small business marketing)
Week 2	The concept and application of product life cycle (etc.); advertising & publicity sales & distribution management
Week 3	The idea of consortium marketing, competitive bidding/tender marketing, negotiation with principal customers
Week 4	The contemporary perspectives on Infrastructure Development, Product and Procurement Reservation
Week 5	Marketing Assistance, Subsidies and other Fiscal & Monetary incentives National, state level and grass-root level financial and nonfinancial institutions in support of small business development

*Shilpa*  
Signature of Teacher

Head of Department

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-V Semester (Sec- B )

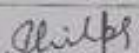
Paper: BC 502

Nomenclature of the Paper: Cost accounting

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topics to be covered
Week 4	Cost Accounting: Meaning, Features, Scope, Techniques, Methods, Objectives, Importance and Limitations
Week 5	Costing; cost accountancy; cost centres and profit centres, Difference and similarities of cost accounting system with financial accounting system
September 2022	
	Topics to be covered
Week 1	Cost: main elements and types Material Control: Meaning and objectives of material control, material purchase procedure
Week 2	Techniques of material control: LIFO, FIFO etc. and Practical questions
Week 3	Fixation of inventory levels- reorder level, Minimum level, Maximum level, Danger level and Practical questions
Week 4	EOQ analysis, Methods of Valuing Material Issues, Wastage of material- main types and
Week 5	Practical questions
October 2022	
	Topic to be Covered
Week 1	Labour Cost Control: Importance, methods of time keeping and Time Booking; Treatment and control of Labour Turnover, Idle Time, Overtime, Systems of Wage Payment-Time Wage System and Piece Wage System
Week 2	Incentive Wage plans- Individual plans and group plans
Week 3	Practical questions
Week 4	Overheads: Meaning and Types, Collection, Classification Allocation and Apportionment
Week 5	Diwali break
November 2022	
	Topic to be Covered
Week 1	Absorption of Overheads- Main methods and Machine Hour Rate
Week 2	Practical questions of Machine Hour Rate
Week 3	Unit and output costing; meaning and objectives; cost sheet – meaning, Purpose, types, preparation of cost sheet;
Week 4	Practical questions
December 2022	
Week 1	Practical questions
Week 2	Reconciliation of cost and financial accounts: Meaning, Objectives and procedure
Week 3	Practical questions
Week 4	Revision of Unit - 1&2
Week 5	Revision of Unit - 3& 4

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**Department of Commerce, GC Sec-9, Gurugram**

Class: B.Com (Pass)-V Semester (Sec- A, B & C)

Paper: BC 501

Nomenclature of the Paper: Taxation Law

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topics to be covered
Week 4	Income Tax: An introduction and Important Definitions Tax planning and tax management
Week 5	Agriculture Income, Residential status and incidence of Tax Liability
September 2022	
	Topics to be covered
Week 1	Exempted incomes & Income from Salaries : allowances
Week 2	Perquisites and practical questions
Week 3	practical questions
Week 4	Retirement benefits & practical questions
Week 5	Income from House property & practical questions
October 2022	
	Topic to be Covered
Week 1	practical questions
Week 2	Profits and Gains from Business or Profession & practical questions
Week 3	practical questions
Week 4	Depreciation & practical questions
Week 5	Drwali break
November 2022	
	Topic to be Covered
Week 1	Income from Presumptive basis Gains & practical questions
Week 2	Capital Gains & practical questions
Week 3	Capital Gains & practical questions
Week 4	Income from other sources & practical questions
December 2022	
	Topic to be Covered
Week 1	clubbing of incomes & aggregation of incomes, setoff and carry forward of losses
Week 2	Deductions to be made in computing total income
Week 3	Deductions to be made in computing total income
Week 4	Revision of Unit - 1&2
Week 5	Revision of Unit - 3& 4

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## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (General) – I Semester (Sec - C)

Paper: BC 101

Nomenclature of the Paper: Financial Accounting-I

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topic to be covered
Week 4	Introduction: Meaning of Accounting
Week 5	Objectives of Accounting
September 2022	
	Topics to be covered
Week 1	Process of Accounting
Week 2	Limitations and basic terms of Accounting, generally accepted Accounting Principles
Week 3	Journalizing, Posting
Week 4	Preparation of trial balance
Week 5	Revision
October 2022	
	Topic to be Covered
Week 1	Capital and revenue items; Reserves and Provisions
Week 2	Depreciation: Meaning, causes, accounting procedure
Week 3	Methods of computing depreciation – straight line Method
Week 4	Methods of computing depreciation – diminishing balance method
Week 5	Diwali break, Revision
November 2022	
	Topic to be Covered
Week 1	Final Accounts with adjustments, Assignment
Week 2	Final Accounts with adjustments, Test
Week 3	Rectification of errors, Revision
Week 4	Accounting for non-profit organizations
Week 5	Revision and test
December 2022	
	Topic to be Covered
Week 1	Accounting for non-profit organizations
Week 2	Consignment accounts
Week 3	Consignment accounts
Week 4	Revision & Test
Week 5	Revision & Test

Head of Department

*How Law*  
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## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) – III Semester (Sec - A)

Paper: BC

Nomenclature of the Paper: BUSINESS REGULATORY FRAMEWORK-I

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topic to be Covered
Week 4	Mercantile Law, Indian contract Act, 1872- An introduction
Week 5	Valid contract and its Elements
September 2022	
	Topic to be Covered
Week 1	Proposal, Acceptance and Revocation
Week 2	Contractual capacity of parties, Free consent of parties
Week 3	Lawful consideration and object
Week 4	Agreements Expressly Declared as Void
Week 5	Legal formalities- written and registered
October 2022	
	Topic to be Covered
Week 1	Revision of above topic
Week 2	Contingent contracts
Week 3	Performance of contracts
Week 4	Discharge of contracts
Week 5	Revision, Assignment
November 2022	
	Topic to be Covered
Week 1	Implied, quasi or constructive contracts
Week 2	Consequences of Breach of contracts
Week 3	Contracts of indemnity and Guarantee
Week 4	Revision
Week 5	Revision and Test
December 2022	
	Topic to be Covered
Week 1	Contracts of Bailment and Pledge
Week 2	Consumer protection Act- 1986
Week 3	Revision & Test
Week 4	Revision & Test
Week 5	Revision & Test

Head of Department

*Office Law*  
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# Department of Commerce, GC Sec-9, Gurugram

Pass

Class: B. Com (General) – I Semester (Sec-8) C

Paper: BC 105

Nomenclature of the Paper: Business Communication Skills

Lesson Plan: from August 2022 to December 2022

## August 2022

### Topics to be covered

Week 4 Introduction: Basics of communication

Week 5 Functions of Communication

## September 2022

### Topics to be covered

Week 1 Seven C's of effective communication

Week 2 Barriers to communication

Week 3 Ethical context of communication

Week 4 Business Communication at workplace, Assignment

Week 5 Test & Revision

## October 2022

### Topics to be covered

Week 1 Letter writing- component, layout and process

Week 2 E- mail communication, bad news messages of meeting

Week 3 Persuasive written communication

Week 4 Memos, notice

Week 5 Agenda and minutes, Revision

## November 2022

### Topics to be covered

Week 1 Communications skills: Reading skills, Listening skills

Week 2 Note making

Week 3 Persuasive speaking, Body language

Week 4 Gestures

Week 5 Revision and Test

## December 2022

### Topics to be covered

Week 1 Report Writing: Types of business reports

Week 2 Structure of reports: Short reports

Week 3 long reports, abstracts and summaries

Week 4 Proposal, Revision

Week 5 Revision & Test

Head of Department

*Alice Chauhan*  
Signature of Teacher

Priya Sharma  
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## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) – III Semester (Sec- )

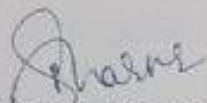
Paper: BC 306 (ii)

Nomenclature of the Paper: Basics of Retailing

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topic to be Covered
Week 4	Introduction: Meaning, nature, scope, importance.
Week 5	Growth and present size: Career option in retailing.
September 2022	
	Topic to be Covered
Week 1	Technology induction in retailing, Future of retailing in India
Week 2	Types of Retailing: Stores classified by owners
Week 3	Stores classified by merchandising categories: Wheel of retailing
Week 4	Traditional retail formats vs. modern retail formats in India
Week 5	Store and non-store-based formats, Revision
October 2022	
	Topic to be Covered
Week 1	Cash and carry business - Meaning, nature and scope
Week 2	Retailing models - Franchiser - franchisee, directly owned
Week 3	Wheel of retailing and retailing life cycle
Week 4	Co-operation and conflict with other retailers
Week 5	Test & Assignment
November 2022	
	Topic to be Covered
Week 1	Retail planning - importance and process
Week 2	Developing retailing strategies, objectives
Week 3	action plans, Revision
Week 4	pricing strategies
December 2022	
	Topic to be Covered
Week 1	location strategies
Week 2	Management of Retailing Operations: Retailing management
Week 3	the total performance model, Functions of retail management
Week 4	Strategic retail management process, Revision
Week 5	Revision

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# Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) – III Semester (Sec - )

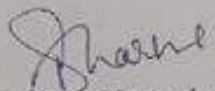
Paper: BC 304

Nomenclature of the Paper: Corporate Law-I

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topic to be Covered
Week 4	Company- Meaning and Characteristics; Features of company. Types of companies
Week 5	Lifting of corporate veil
September 2022	
	Topic to be Covered
Week 1	Formation of Company. - Promotion of company
Week 2	Functions of promoter. importance of promoter
Week 3	Promoter's remuneration. legal status of Promoter
Week 4	Rights of promoters. Duties of promoters Liabilities of promoters
Week 5	Pre- incorporation contracts. Incorporation of Business
October 2022	
	Topic to be Covered
Week 1	Prospectus - definition Public offer. contents
Week 2	misleading prospectus and its consequences. Assignment
Week 3	Memorandum of Association - Meaning. importance
Week 4	Clauses of memorandum of association and their Alteration
Week 5	Test & Revision
November 2022	
	Topic to be Covered
Week 1	Doctrine of ultra- virus
Week 2	Articles of Association - Meaning. contents
Week 3	Alteration of articles of association
Week 4	Constructive notice and doctrine of indoor management
December 2022	
	Topic to be Covered
Week 1	Borrowing Powers
Week 2	Debentures
Week 3	Charges
Week 4	Revision
Week 5	Revision

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## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (General) – 1 Semester (Sec - )

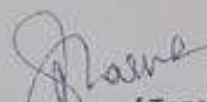
Paper: BC 101

Nomenclature of the Paper: Financial Accounting-I

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topic to be covered
Week 4	Introduction, Meaning of Accounting
Week 5	Objectives of Accounting
September 2022	
	Topics to be covered
Week 1	Process of Accounting
Week 2	Limitations and basic terms of Accounting, generally accepted Accounting Principles
Week 3	Journalizing, Posting
Week 4	Preparation of trial balance, Assignment
Week 5	Test & Revision
October 2022	
	Topic to be Covered
Week 1	Capital and revenue items, Reserves and Provisions
Week 2	Depreciation, Meaning, causes, accounting procedure
Week 3	Methods of computing depreciation - straight line Method
Week 4	Methods of computing depreciation - diminishing balance method
Week 5	Diwali break, Revision
November 2022	
	Topic to be Covered
Week 1	Final Accounts with adjustments
Week 2	Final Accounts with adjustments, Test
Week 3	Rectification of errors, Revision
Week 4	Accounting for non-profit organizations
December 2022	
	Topic to be Covered
Week 1	Accounting for non-profit organizations
Week 2	Consignment accounts
Week 3	Consignment accounts
Week 4	Revision & Test
Week 5	Revision & Test

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## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) - I Semester (Sec- )

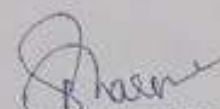
Paper: BC 105

Nomenclature of the Paper: Business Communication Skills

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topics to be covered
Week 4	Introduction Basics of communication
Week 5	Functions of Communication
September 2022	
	Topics to be covered
Week 1	Seven C's of effective communication
Week 2	Barriers to communication
Week 3	Ethical context of communication
Week 4	Business Communication at workplace. Assignment
Week 5	Test & Revision
October 2022	
	Topics to be covered
Week 1	Letter writing- component, layout and process
Week 2	E- mail communication, bad news messages of meeting
Week 3	Persuasive written communication
Week 4	Memos, notice
Week 5	Agenda and minutes Test
November 2022	
	Topics to be covered
Week 1	Communications skills Reading skills, Listening skills
Week 2	Note making
Week 3	Persuasive speaking Body language
Week 4	Gestures
December 2022	
	Topics to be covered
Week 1	Report Writing Types of business reports
Week 2	Structure of reports Short reports
Week 3	long reports. abstracts and summaries
Week 4	Proposal, Revision
Week 5	Revision & Test

Head of Department

  
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Kavita Dua

Department of Commerce, GC Sec-9, Gurugram

[2023-23]

[odd]

Class: B. Com (General) – III Semester (Sec- A)

Paper: BC 301

Nomenclature of the Paper: Corporate Accounting-I

Lesson Plan: from August 2022 to December 2022

August 2022	
	Topics to be covered
Week 4	Share Capital: Meaning, types, Accounting Treatment of issue
Week 5	forfeiture and reissue of Share
September 2022	
	Topics to be covered
Week 1	Buyback of equity shares & Sweat shares
Week 2	PSS (Problems Solving Section)
Week 3	process and significance
Week 4	Redemption of preference share: Issue of Bonus Share
Week 5	PSS (Problems Solving Section)
October 2022	
	Topics to be covered
Week 1	Debenture: Meaning, Types
Week 2	Issue of Debentures
Week 3	PSS (Problems Solving Section)
Week 4	Redemption of Debentures
Week 5	Diwali break
November 2022	
	Topics to be covered
Week 1	PSS (Problems Solving Section)
Week 2	Valuation of Goodwill: Meaning, objectives
Week 3	determinates and main methods
Week 4	Valuation of Shares: Meaning, objectives, determinates and main methods
December 2022	
Week 1	PSS (Problems Solving Section)
Week 2	Profit or loss before and after incorporation
Week 3	Final accounts of companies
Week 4	PSS (Problems Solving Section)
Week 5	PSS (Problems Solving Section)

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Kavita  
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## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) - I Semester (Sec - 8)

Paper: BC 101

Nomenclature of the Paper: Financial Accounting-I

Lesson Plan: from August 2022 to December 2022

[2022-23]

[odd]

August 2022	
	Topic to be covered
Week 4	Introduction: meaning
Week 5	Objectives of Accounting
September 2022	
	Topics to be covered
Week 1	Process of Accounting
Week 2	Limitations and basic terms of Accounting.
Week 3	Generally accepted Accounting Principles.
Week 4	Journalizing, Posting
Week 5	Preparation of trial balance
October 2022	
	Topic to be Covered
Week 1	Capital and revenue items: Reserves and Provisions.
Week 2	Depreciation: Meaning, causes, accounting procedure.
Week 3	methods of computing depreciation - straight line
Week 4	methods of computing depreciation - diminishing balance method
Week 5	Diwali break
November 2022	
	Topic to be Covered
Week 1	Final Accounts with adjustments.
Week 2	Final Accounts with adjustments.
Week 3	Rectification of errors.
Week 4	Accounting for non-profit organizations.
December 2022	
	Topic to be Covered
Week 1	Accounting for non-profit organizations.
Week 2	Consignment accounts
Week 3	Consignment accounts
Week 4	Revision
Week 5	Revision

Signature of Teacher  
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## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) – I Semester (Sec-C)

Paper: BC 104

Nomenclature of the Paper: Business Management – I

Lesson Plan: from August 2022 to December 2022

[2022-23] (odd)

August 2022	
	Topics to be covered
Week 4	Business: concept
Week 5	nature and spectrum of business activities
September 2022	
	Topics to be covered
Week 1	Business system and objectives
Week 2	business objectives
Week 3	process and significance
Week 4	Development of Management Thought, Classical
Week 5	Neo-Classical systems
October 2022	
	Topics to be covered
Week 1	Contingency approaches
Week 2	Planning concept, types and process
Week 3	Decision Making concept
Week 4	Decision Making process
Week 5	Diwali break
November 2022	
	Topics to be covered
Week 1	Corporate Planning
Week 2	Strategic Formulation
Week 3	Organizing concept, nature
Week 4	Organizing process and significance
December 2022	
Week 1	Authority and Responsibility relationship,
Week 2	Centralization and Decentralization
Week 3	Departmentation, Firms of Organizing structure
Week 4	Revision
Week 5	Revision

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# Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (General) - III Semester (Sec-2)

Paper: BC 305

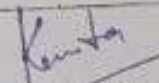
Nomenclature of the Paper: Human Resource Management

Lesson Plan: from October 2020 to February 2021

[2022-23]

[odd]

August 2022	
	Topics to be covered
Week 4	Human resource management - Definition, Importance objectives and scope of Human Resource Management (HRM).
Week 5	Function of Human Resource Management - Managerial and Operative Functions
September 2022	
	Topics to be covered
Week 1	Qualification and Qualities of Human Resource manager
Week 2	Evolution and Growth of Human Recourse Management (HRM) India
Week 3	Recruitment - Meaning, Steps in recruitment policy
Week 4	Sources and modes of recruitment, Factors affecting recruitment.
Week 5	Stages in Selection Procedure
October 2022	
	Topics to be covered
Week 1	Training: Concept, Need and importance of Training
Week 2	Methods of Training - On the Job Training + off the Job Train
Week 3	Principles of training, Evaluation of training Programme in
Week 4	Wages - Meaning, Objective and Theories of wages,
Week 5	Diwali break
November 2022	
	Topics to be covered
Week 1	Methods of wage Programme - Time wages and Piece wages methods
Week 2	Concept of wages - Fair, Minimum and Living wage, Factors and essentials of satisfactory wage policy
Week 3	Wage Incentives - Concept, Need, Importance and Special Incentives
Week 4	Profit sharing and Labour Co. Partnership and Essentials of Ideal Incentives system
December 2022	
Week 1	Industrial Relations - Concept, Importance and Objectives of industrial relations, Participants of industrial relation and Recruitment of good industrial relation Programme
Week 2	Industrial Unrest - Meaning, Forms and Causes of industrial disputes, Impact of Industrial unrest on the Economy
Week 3	Preventive and curative methods and Agencies for Reconciliation of Industrial unrest
Week 4	Revision
Week 5	Revision

  
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Head of Department

## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (Hons.) - 1 Semester

Paper: BCH 101

Nomenclature of the Paper: An Introduction to Statistics

Lesson Plan: from *Aug 2022 to Dec 2022*

<i>Aug 2022</i>	
	Topic Covered
Week 1	Statistics: Meaning, Definition, Needs & Objectives
Week 2	Collection of data - types, methods
Week 3	classification and tabulation of data
Week 4	graphic diagrammatic presentation
Week 5	PSS (Problems Solving Section)
<i>Sep. 2022</i>	
	Topic Covered
Week 1	Measurement of Central Tendency
Week 2	-Do-
Week 3	Variation - Mathematical and fractional averages
Week 4	Measures of absolute and relative variations
Week 5	PSS (Problems Solving Section)
<i>Oct 2022</i>	
	Topic Covered
Week 1	Moments
Week 2	skewness
Week 3	kurtosis (with Sheppard's corrections)
Week 4	Index Numbers
Week 5	PSS (Problems Solving Section)
<i>Nov. 2022.</i>	
	Topic Covered
Week 1	Probability and Expected Value: Meaning and Schools of thoughts
Week 2	Importance of the Concept of the Probability. Calculation of Probability
Week 3	Probability Theorems: Addition, Multiplication and Bayes' Theorem. Mathematical Expectations. Numerical of Probability
Week 4	Revision

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*Seneval*  
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## Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (Hons.) – III Semester

Paper: BCH 302

Nomenclature of the Paper: Corporate Accounting-I

Lesson Plan: from (Aug 2022 to Dec 2022)

August 2022	
	Topic to be Covered
Week 1	Issue and forfeiture of shares
Week 2	PSS (Problems Solving Section)
Week 3	Redemption of Preference Shares
Week 4	PSS (Problems Solving Section)
Week 5	Buy back of Shares
Sep. 2022	
	Topic to be Covered
Week 1	Valuation of Goodwill
Week 2	Valuation of Securities
Week 3	Issue and Redemption of Debentures
Week 4	-Do-
Week 5	-Do-
Oct 2022	
	Topic to be Covered
Week 1	Final Accounts of a company as per schedule VI
Week 2	-Do-
Week 3	Profit or loss prior and subsequent to incorporation
Week 4	-Do-
Week 5	PSS (Problems Solving Section)
Nov 2022	
	Topic to be Covered
Week 1	Holding Companies Accounts
Week 2	-Do-
Week 3	-Do-
Week 4	PSS (Problems Solving Section)
Week 5	PSS (Problems Solving Section)
Dec 2022	
	Topic to be Covered
Week 1	Revision
Week 2	Revision
Week 3	Revision
Week 4	Revision

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[Sunder Kadyan]



## Department of Commerce, GC Sec-9, Gurugram

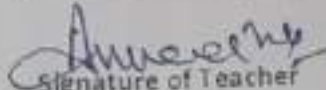
**Class:** BBA – I Semester

**Paper:** BBAN 104

**Nomenclature of the Paper:** Computer Fundamentals

**Lesson Plan:**

AUG 2022	
	Topic Covered
Week 1	Introduction – Digital and analog computers, evolution of digital computers
Week 2	major components of a digital computer
Week 3	hardware, software, firmware
Week 4	middleware and freeware, computer applications
SEP 2022	
	Topic Covered
Week 1	Decimal number system, binary number system
Week 2	conversion of a binary number to decimal number
Week 3	conversion of a decimal number to a binary number
Week 4	addition of binary numbers, binary subtraction
Week 5	hexadecimal number system, octal number system
OCT 2022	
	Topic Covered
Week 1	Input devices, output devices, printers, plotters
Week 2	other forms of output device
Week 3	main memory, secondary memory and backup memory
Week 4	Computer applications in offices
Week 5	use of computers in books publication, desktop publishing system
NOV 2022	
	Topic Covered
Week 1	application of computers for data analysis
Week 2	application of computer in education
Week 3	application of computer in banks, medical field
Week 4	Revision
DEC 2022	
Week 1	PRESENTATION AND TEST
Week 2	PRESENTATION AND TEST
Week 3	REVISION
Week 4	REVISION
Week 5	TEST AND PREVIOUS YEAR PAPER DISCUSSION

  
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## Department of Commerce, GC Sec-9, Gurugram

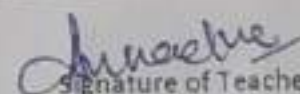
**Class:** BBA – III Semester

**Paper:** BBAN304

**Nomenclature of the Paper:** Introduction to Information Technology

**Lesson Plan:**

Topic to be Covered	
<b>AUG 2022</b>	
Week 1	Documentation using MS WORD
Week 2	Tool bars, menus
Week 3	creating and editing documents format header footer
Week 4	page formatting mail merge macros
<b>September 2022</b>	
Topic to be Covered	
Week 1	drop cap, auto text
Week 2	auto correct spelling
Week 3	and grammar tools
Week 4	dictionary
Week 5	tables, file management and printing
<b>October 2022</b>	
Topic to be Covered	
Week 1	Electronic spreadsheet - creating and editing
Week 2	formatting, moving and copying data, functions
Week 3	types of graph, creating graph, formatting cells
Week 4	macros, conditional formatting
Week 5	-Do-
<b>November 2022</b>	
Topic to be Covered	
Week 1	Presentations using MS-PowerPoint
Week 2	creating manipulating and enhancing slides
Week 3	excel charts, word art, layering and objects
Week 4	animation and sounds, inserting pictures
<b>December 2022</b>	
Topic to be Covered	
Week 1	Introduction to Tally
Week 2	-Do-
Week 3	-Do-
Week 4	-Do-
Week 5	-Do-

  
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## Department of Commerce, GC Sec-9, Gurugram

Class: BBA - V Semester

Paper: BBAN506

Nomenclature of the Paper: Cyber Security

Lesson Plan:

	<b>Aug 2022</b>
Week 1	terrorist atrocities
Week 2	the power of cyber terrorism
Week 3	factors contributing to the existence of cyber terrorism
Week 4	economic consequences
	<b>Sep 2021</b>
	<b>Topic to be Covered</b>
Week 1	Cyber terrorism, the role of IT by terrorist
Week 2	characteristic of cyber terrorism
Week 3	real examples of cyber terrorism
Week 4	political orientation of terrorism
Week 5	economic consequences
	<b>October 2021</b>
	<b>Topic to be Covered</b>
Week 1	Cyber terrorism, terrorist atrocities
Week 2	the role of IT by terrorist
Week 3	characteristic of cyber terrorism
Week 4	real examples of cyber terrorism
Week 5	political orientation of terrorism
	<b>November 2021</b>
	<b>Topic to be Covered</b>
Week 1	Cybercrime, types of cybercrime: hacking, virus, worm
Week 2	Trojan horse, mail ware, fraud and theft
Week 3	cyber homicide, current cyber-attack methods
Week 4	criminal threats to IT infrastructure, web security
Week 5	basic cyber forensics, internal penetration
	<b>December 2021</b>
	<b>Topic to be Covered</b>
Week 1	external penetration, your role on cyber-attacks
Week 2	Cybercrimes and law, cyber jurisdiction, Indian IT ACT
Week 3	Fundamental concepts of information security
Week 4	information warfare, levels of information war
Week 5	cost of information warfare, cyber disaster planning

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Signature of Teacher

## Department of Commerce, GC Sec-9, Gurugram

Class: BBA – V Semester

Paper: BBAN504

Nomenclature of the Paper: Computer Networking & Internet

Lesson Plan:

	<b>August 2022</b>
Week 1	Introduction to network
Week 2	topologies
Week 3	advantages and disadvantages of network
Week 4	Analog and digital transmission
	<b>September 2022</b>
	<b>Topic to be Covered</b>
Week 1	TCP/IP model
Week 2	Network devices-1
Week 3	Network device -2
Week 4	Analog and digital signal
Week 5	future of intranet. protocols of communication
	<b>October 2022</b>
	<b>Topic to be Covered</b>
Week 1	OSI model
Week 2	protocols and their classification
Week 3	flow control
Week 4	Cryptography
Week 5	ranking
	<b>November 2022</b>
	<b>Topic to be Covered</b>
Week 1	Overview of internet. internet service provider
Week 2	setting windows environment for dial up networking
Week 3	search engine. searching web using search engine
Week 4	audio on internet. newsgroup
	<b>December 2022</b>
	<b>Topic to be Covered</b>
Week 1	Intranet concepts and architecture. building corporate world wide web HTTP protocol
Week 2	intranet infrastructure. fundamental of TCP/IP
Week 3	intranet security design
Week 4	intranet as a business tool
Week 5	Test and revision

*Anmol*  
Signature of Teacher

Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (Pass) – Vth Sem ( Sec. A )

Nomenclature of the Paper: Cost Accounting-I

Lesson Plan: from Aug. 2022 to Dec. 2022

Name of the faculty : Dr. Shubhra Jain

Aug.2022 Topic to be Covered	
Week 4	Cost Accounting Meaning, Features, Scope
Week 5	Cost Accounting Techniques, Methods, Objectives, Importance and Limitations
Sep.2022 Topic to be Covered	
Week 1	Costing; cost accountancy; cost and profit centers, Difference and similarities of cost accounting system with financial accounting system, Cost main elements and types.
Week 2	Overheads: Meaning and Types, Collection, Classification
Week 3	Overheads: Allocation, Apportionment and Absorption of Overheads – Main methods including practical problems
Week 4	Overheads (Cont. .): Allocation, Apportionment and Absorption of Overheads – Main methods including practical problems
Week 5	Unit and output costing : meaning and objectives; cost sheet – meaning, Preparation, preparation including practical problems
Oct. 2022 Topic to be Covered	
Week 1	Unit and output costing : determination of tender price including practical problems
Week 2	Unit and output costing : determination of tender price including practical problem, Assignment 1
Week 3	Reconciliation of cost and financial accounts: Meaning, Objectives and procedure including practical problems
Week 4	Reconciliation of cost and financial accounts: Meaning, Objectives and procedure including practical problems
Week 5	Labour Cost Control : Importance, methods of time keeping and Time Booking,
Week 6	Wage Payment System : Time Wage System, Piece Wage System including practical problems
Nov.2022 Topic to be Covered	

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Week 1	Incentive Wage plans - Individual plans and group plans including practical problems
Week 2	Labour Cost Control Treatment and control of Labour Turnover, Idle Time, Overtime including practical problems
Week 3	Material Control: Meaning and objectives of material control, material purchase procedure, Inventory Control : fixation of inventory levels- reorder level, Minimum level, Maximum level, Danger level including practical problems
Week 4	Material Control: EOQ analysis, Methods of Valuing Material issues Wastage of material main types including practical problems, Assignment 2
Week 5	Revision : problem solving sessions and test ( Unit 1)
	<b>Dec 2022 Topic to be Covered</b>
Week 1	Revision , problem solving sessions ( Unit 2)
Week 2	Revision , problem solving sessions and test ( Unit 2)
Week 3	Revision , problem solving sessions ( Unit 3)
Week 4	Revision , problem solving sessions and Test ( Unit 3 & 4)
Week 5	Revision and problem solving sessions and test ( Unit 4)

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Department of Commerce, GC Sec-9, Gurugram

Class: B.COM (Pass) IIIrd Sem (Sec B)

Nomenclature of the Paper: Corporate Accounting - I

Lesson Plan: from Aug. 2022 to Dec. 2022

Name of the faculty : Dr. Shubhra Jain

Aug.2022 Topic to be Covered	
Week 4	Unit - III Valuation of Goodwill: Meaning, objectives, determinants and main methods including practical problems
Week 5	Unit - III Valuation of Goodwill: main methods including practical problems
Sep.2022 Topic to be Covered	
Week 1	Unit - III Valuation of Shares: Meaning, objectives, determinants and main methods including practical problems
Week 2	Unit - III Valuation of Shares: main methods including practical problems
Week 3	Unit - I Share Capital: Meaning, types
Week 4	Unit - I Accounting Treatment of issue, forfeiture and reissue of Share including practical problems
Week 5	Unit - I Buy-back of equity shares & Sweat shares; Redemption of preference share, Issue of Bonus Share including practical problems
Oct. 2022 Topic to be Covered	
Week 1	Unit - I Redemption of preference share, Issue of Bonus Share including practical problems
Week 2	Unit - I Redemption of preference share, Issue of Bonus Share including practical problems
Week 3	Unit - II Debenture: Meaning, Types Issue including practical problems
Week 4	Unit - II Debenture: Meaning, Types Issue including practical problems
Week 5	Unit - II Debenture: Redemption of Debentures including practical problems
Week 6	Unit - II Debenture: Redemption of Debentures including practical problems - Assignment 1

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	Nov.2022 Topic to be Covered
Week 1	Unit - II Debenture. Redemption of Debentures including practical problems
Week 2	Unit - IV Profit or loss before and after incorporation. Final accounts of companies. Including practical problems
Week 3	Unit - IV Profit or loss before and after incorporation. Final accounts of companies. Including practical problems
Week 4	Revision, problem solving sessions ( Unit 1)
Week 5	Revision, problem solving sessions and Test ( Unit 1)
	Dec 2022 Topic to be Covered
Week 1	Revision, problem solving sessions ( Unit 2); Assignment 2
Week 2	Revision, problem solving sessions and Test ( Unit 2)
Week 3	Revision, problem solving sessions and Test ( Unit 3)
Week 4	Revision, problem solving sessions and Test ( Unit 4)
Week 5	Revision, problem solving sessions and Test ( Unit 4)

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Department of Commerce, GC Sec-9, Gurugram

Class: B. Com (Pass) - III Semester (Sec. B)

Nomenclature of the Paper: Human Resource Management

Lesson Plan: from Aug. 2022 to Dec. 2022

Name of the Faculty: Dr. Shubhra Jain

Aug. 2022 Topic to be Covered	
Week 4	Unit 1: Human Resource Management Definition, Importance, objectives and scope
Week 5	Function of Human Resource Management - Managerial and Operative Functions
Sep. 2022 Topic to be Covered	
Week 1	Qualification and Qualities of Human Resource manager
Week 2	Evolution and Growth of Human Resource Management (HRM) India
Week 3	Unit 2: Recruitment: Meaning, Steps, Sources, Modes and Factors
Week 4	Selection: Meaning, Essentials, Stages
Week 5	Training: Concept, Need, Importance
Oct. 2022 Topic to be Covered	
Week 1	Methods of Training: On the job and Off the job; Principles; Evaluation of training Programme in India
Week 2	Unit 3: Wages: Meaning, Objectives and Theories
Week 3	Methods: Time wage and Piece wage
Week 4	Concept of wage: Fair, Minimum, Living wage, Factors and Essentials
Week 5	Wage Incentive: Concept, Need, Importance

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Week 6	Special Incentives and essentials of ideal incentive system
	Nov.2022 Topic to be Covered
Week 1	Unit 4 - Industrial Relations - Concept - importance, objectives. Assignment 1
Week 2	Industrial Relations - participants and recruitment of good industrial relation programme
Week 3	Industrial Unrest - Meaning - Forms - Causes
Week 4	Industrial Unrest - Impact on economic - preventive and curative methods and agencies
Week 5	Revision ( Unit 1)
	Dec 2022 Topic to be Covered
Week 1	Revision ( Unit 2) and Test - Assignment 2
Week 2	Revision ( Unit 3)
Week 3	Revision ( Unit 4) and test
Week 4	Presentations
Week 5	Presentations

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Department of Commerce, GC Sec-9, Gurugram

Class: B. COM (Hons.) Vth Sem

Nomenclature of the Paper: Contemporary Issues in Commerce

Lesson Plan: from Aug. 2022 to Dec. 2022

Name of the faculty : Dr. Shubhra Jain

Aug.2022 Topic to be Covered	
Week 4	Unit- I Role of Micro Finance in Rural Development
Week 5	Unit - I - Corporate Social Responsibility- Ethics and Accountability Information
Sep.2022 Topic to be Covered	
Week 1	Unit - I Communication Technology - E- Learning - An Effective Tool in Present Educational Scenario
Week 2	Unit - I Mobile Communication - A Revolutionary tool in IT
Week 3	Unit - I - Balance of Payment and Deficit Financing, Tax Regulations & Economic Growth
Week 4	Unit - II Financial Innovations
Week 5	Unit - II Global Financial Crisis
Oct. 2022 Topic to be Covered	
Week 1	Unit - II Recent trends in Banking and Financial Services
Week 2	Unit - III Reshaping Rural Marketing, Modern Retailing Challenges in India
Week 3	Unit - III Marketing through Social Networking Websites, Evolving E- Marketing in India
Week 4	Unit - IV Challenges in Managing Workforce Diversity and Projects topics distribution
Week 5	Unit - IV Human Resource Accounting and Audit

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Week 6	Unit – IV HR challenges in Managing Technological Changes.
	Nov.2022 Topic to be Covered
Week 1	Assessment of project reports
Week 2	Assessment of project reports
Week 3	Assessment of project reports
Week 4	Assessment of project reports
Week 5	Assessment of project reports
	Dec 2022
Week 1	Assessment of project reports and Presentations
Week 2	Assessment of project reports and Presentations
Week 3	Assessment of project reports and Presentations
Week 4	Assessment of project reports and Presentations
Week 5	Assessment of project reports and Presentations

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Department of Commerce, GC Sec-9, Gurugram

Class: M.Com (Previous) 1 semester

Nomenclature of the Paper: Accounting Standards and Financial Reporting

Lesson Plan: from Oct. 2022 to Jan 2023

Name of the faculty : Dr. Shubhra Jain

Oct. 2022 Topic to be Covered	
Week 1	Unit - I Accounting Standards: Meaning, Objectives, Benefits, Scope, Stages and Process of Standards settings in India
Week 2	Unit - I Accounting Standards: Stages and Process of Standards settings in India
Week 3	Unit- I Accounting Standards issued by ICAI, Compliance and Applicability of Accounting Standards in India
Week 4	Unit- I Accounting Standards issued by ICAI, Compliance and Applicability of Accounting Standards in India
Week 5	Unit- I Accounting Standards issued by ICAI, Compliance and Applicability of Accounting Standards in India
Week 6	Unit- I Accounting Standards issued by ICAI, Compliance and Applicability of Accounting Standards in India, The Companies (Indian Accounting Standards) Rules, 2015
Nov. 2022 Topic to be Covered	
Week 1	Unit - II International Financial Reporting Standards: Meaning, History, Objectives, Scope
Week 2	Unit - II Convergence of Indian Accounting Standards with IFRS: Current Status and Challenges
Week 3	Unit - II IASB: History, Objectives, Scope, FASB: History and its Pronouncements: Harmonization in Accounting and Reporting: Presentations
Week 4	Unit - III Financial Disclosures and Reporting: Objectives and Concepts, Developments on Financial Reporting Objectives: Presentations
Week 5	Unit - III True blood Report, Corporate Report, Stamp Report: Presentations: Assignment 1
Dec 2022 Topic to be Covered	
Week 1	Unit - III IASB's and FASB's Conceptual Framework: Corporate Annual Report, Segment Reporting and Interim Financial Reporting: Presentations

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Week 2	Unit - IV Financial Reporting by Mutual funds, Non-banking finance companies, Merchant bankers.
Week 3	Unit - IV Contemporary Issues in Accounting: Human Resource Accounting, Corporate Social Reporting, Forensic Accounting and Reporting, Environmental Reporting
Week 4	Revision & Test ( Unit 1)
Week 5	Revision & Test ( Unit 2), Assignment 2.
	Jan 2023 Topic to be Covered
Week 1	Revision & Test ( Unit 3)
Week 2	Revision & Test ( Unit 4)

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## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (hons)-V Semester

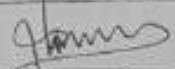
Paper: BC 501

Nomenclature of the Paper: Taxation Law

Lesson Plan: from August 2022 to December 2022

August 2022	
	<b>Topics to be covered</b>
Week 4	Income Tax: An introduction and Important Definitions, Tax planning and tax management
Week 5	Agriculture Income, Residential status and incidence of Tax Liability
September 2022	
	<b>Topics to be covered</b>
Week 1	Exempted incomes & Income from Salaries : allowances
Week 2	Perquisites and practical questions
Week 3	practical questions
Week 4	Retirement benefits & practical questions
Week 5	Income from House property & practical questions
October 2022	
	<b>Topic to be Covered</b>
Week 1	practical questions
Week 2	Profits and Gains from Business or Profession & practical questions
Week 3	practical questions
Week 4	Depreciation & practical questions
Week 5	Diwali break
November 2022	
	<b>Topic to be Covered</b>
Week 1	Income from Presumptive basis Gains & practical questions
Week 2	Capital Gains & practical questions
Week 3	Capital Gains & practical questions
Week 4	Income from other sources & practical questions
December 2022	
	<b>Topic to be Covered</b>
Week 1	clubbing of incomes & aggregation of incomes, setoff and carry forward of losses
Week 2	Deductions to be made in computing total income
Week 3	Deductions to be made in computing total income
Week 4	Revision of Unit -1&2
Week 5	Revision of Unit -3& 4

Head of Department

  
 Signature of Teacher

Dr. Mukesh Kumar sharma

## Department of Commerce, GC Sec-9, Gurugram

Class: B.Com (Pass)-V Semester (Sec- )

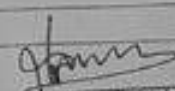
Paper: BC 502

Nomenclature of the Paper: Cost accounting

Lesson Plan: from August 2022 to December 2022

August 2022	
Topics to be covered	
Week 4	Cost Accounting: Meaning, Features, Scope, Techniques, Methods, Objectives, Importance and Limitations
Week 5	Costing; cost accountancy; cost centres and profit centres, Difference and similarities of cost accounting system with financial accounting system.
September 2022	
Topics to be covered	
Week 1	Cost: main elements and types Material Control: Meaning and objectives of material control, material purchase procedure.
Week 2	Techniques of material control: LIFO, FIFO etc. and Practical questions
Week 3	Fixation of inventory levels- reorder level, Minimum level, Maximum level, Danger level and Practical questions
Week 4	EOQ analysis. Methods of Valuing Material Issues. Wastage of material-main types and
Week 5	Practical questions
October 2022	
Topic to be Covered	
Week 1	Labour Cost Control: Importance, methods of time keeping and Time Booking, Treatment and control of Labour Turnover, Idle Time, Overtime, Systems of Wage Payment-Time Wage System and Piece Wage System.
Week 2	Incentive Wage plans-Individual plans and group plans
Week 3	Practical questions
Week 4	Overheads: Meaning and Types. Collection, Classification Allocation and Apportionment
Week 5	Diwali break
November 2022	
Topic to be Covered	
Week 1	Absorption of Overheads-Main methods and Machine Hour Rate
Week 2	Practical questions of Machine Hour Rate
Week 3	Unit and output costing: meaning and objectives; cost sheet – meaning, Performa, types, preparation of cost sheet;
Week 4	Practical questions
December 2022	
Week 1	Practical questions
Week 2	Reconciliation of cost and financial accounts: Meaning, Objectives and procedure
Week 3	Practical questions
Week 4	Revision of Unit -1&2
Week 5	Revision of Unit -3&4

Head of Department

  
 Signature of Teacher



## Department of Commerce, GC Sec-9, Gurugram


Name of Assistant Professor: Dr. Mukesh Kumar Sharma

Class: M Com – 3<sup>rd</sup> Sem

Nomenclature of the Paper: Corporate Tax

August 2022	
Week 4	Meaning of company, Types of companies, Residential status and incidence of tax on companies
Week 5	Computation of Income of company under various heads: general provisions applicable to companies for computation of gross total income
September 2022	
Week 1	Deductions from gross total income as applicable to companies
Week 2	Practical questions
Week 3	computation of tax for various types of companies
Week 4	Provisions of MAT
Week 5	Practical questions
October 2022	
Week 1	Assessment of Insurance Companies
Week 2	Assessment of Charitable / Educational Institutions/ Religious Trust and Political Parties.
Week 3	Practical questions
Week 4	Assessment of Non- Residents and advance ruling for non-residents
Week 5	Diwali Vacations
November 2022	
Week 1	Assessment of cooperative societies
Week 2	Practical questions
Week 3	Assessment of discontinued business
Week 4	Practical questions
Week 5	Double taxation relief
December 2022	
Week 1	Practical questions
Week 2	Revision
Week 3	Revision
Week 4	Revision
Week 5	Revision

Head of Department

  
Signature of Teacher