CBSE Affiliation No. 3430369

DELHI PUBLIC SCHOOL
CHAS, BOKARO

TERM AND MONTH-WISE SPLIT-UP SYLLABI OF CLASS – XII FOR THE SESSION 2026-2027

SUBJECT: ENGLISH CORE (301)
Textbook: 1. **FLAMINGO**
2. **VISTAS**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	PROSE THE LAST LESSON (Flamingo)	The lesson aims to develop an understanding of patriotism, linguistic identity and cultural values while making students aware of the importance of mother tongue and freedom	Students create posters or visual presentations highlighting the importance of preserving regional languages and culture	Inclusive discussions are conducted where learners share experiences related to their own languages and traditions to promote mutual respect.	Students prepare a short film, presentation or research work on endangered languages and cultural identity.	Debate and value-based analytical discussions are conducted on the impact of language loss.	Students develop respect for linguistic diversity and understand the relationship between language and identity
		POEM My Mother at 66 (Flamingo)	The poem helps students analyze themes of aging, mortality and emotional bonding while identifying poetic devices and imagery.	Learners prepare a family tree collage or artistic representation of family bonds.	Classroom interaction encourages students to share experiences about elders and family relationships.	Students write reflective paragraphs or short compositions on caring for elderly family members.	Text-based interpretative questions help students analyze symbolism and emotional undertones	Students develop empathy towards elders and enhance their understanding of poetic techniques
		PROSE Lost Spring (Flamingo)	he chapter develops awareness about poverty, child labour and social injustice while helping learners understand the author's message of social responsibility.	Students create drawings or posters depicting child rights and social equality.	Group discussions are organized to sensitize students towards marginalized communities.	Learners undertake projects on government schemes for child welfare and education.	Case-based and creative writing tasks are conducted to enhance analytical thinking.	Students develop empathy and social awareness towards underprivileged children.
		PROSE The Third Level (Vistas)	Understand theme of escapism, psychological	Creative sketch of the third level.	Discussion on stress and modern life.	Short write-up on personal escape from stress.	Interpretative and analytical questions.	Develop critical thinking and understanding of

			conflict and imagination vs reality.					fantasy elements.
		Business letter – Job application	Develop formal writing skills. To develops formal communication skills, clarity of expression and correct format usage in official and social writing tasks.	Design resume format creatively	Design resume format creatively	Draft job application with resume.	Vacancy-based writing practice.	Students gain proficiency in formal and functional writing required for academic and professional contexts.
May	07	PROSE Deep Water (Flamingo)	The lesson enables students to understand the theme of courage, determination and overcoming fear through autobiographical narration.	Learners design visual charts representing fear and courage in life situations.	Students share personal experiences in a supportive classroom environment to build confidence.	Reflective writing tasks are assigned where students narrate incidents of overcoming fear.	Situational problem-solving activities are conducted to apply the lesson's values.	Students develop resilience and self-confidence in facing challenges.
May	07	Notice Writing	To understand the importance and use of Notice Writing. To learn the format .	Design notice board	Peer correction	Draft school notice	Scenario-based writing	Students write effective notices
June	16	PROSE The Rattrap (Flamingo)	The story helps students interpret symbolism and understand themes of redemption, compassion and human transformation.	Learners prepare creative models symbolizing the metaphor of the rattrap.	Role-play activities encourage inclusive participation and moral reflection.	Students write articles or complete the story with alternative endings.	Character analysis and value-based discussions strengthen critical thinking.	Students understand the importance of kindness and moral transformation.
June	16	POEM Keeping Quiet (Flamingo)	Understand theme of peace, introspection and global harmony.	Poster on peace and unity.	Silent reflection activity.	Paragraph on importance of silence.	Symbolism-based questions.	Develop reflective and analytical skills.

June	16	PROSE Indigo (Flaming o)	The chapter familiarizes students with the freedom struggle and leadership qualities demonstrated during the Champaran movement.	Students design timelines or presentations related to the Indian freedom movement.	Documentary viewing and collaborative analysis promote inclusive learning.	Biography writing and research projects on social reforms are assigned.	Analytical discussions on civil rights and leadership are conducted.	Students develop civic awareness and understand the value of non-violence.
June	16	PROSE The Tiger King (Vistas)	The chapter enables learners to analyze satire, irony and the consequences of arrogance and misuse of power.	Students create wildlife conservation posters and graphical presentations on tiger census.	Ethical leadership discussions encourage inclusive viewpoints.	Research reports on Project Tiger and wildlife conservation are prepared.	Analytical comparison between fiction and real data enhances critical thinking.	students understand satire and the importance of wildlife protection.
1ST PT – 15/06/26								
July	26	POEM A Thing of Beauty (Flamingo)	Appreciate beauty of nature and optimism in life.	Nature collage or drawing.	Sharing personal experiences of nature.	Essay on beauty around us.	Identify imagery and poetic devices.	Develop positive outlook and literary appreciation.
July	26	**PROSE Journey to the end of the World (Vistas)**	The lesson creates awareness about climate change, environmental sustainability and the fragile balance of nature.	Learners design posters and maps showing environmental issues and Antarctica.	Group discussions promote awareness of sustainable practices.	Students write formal letters addressing environmental concerns.	Data-based interpretation and case study analysis enhance reasoning skills.	Students develop responsibility towards environmental conservation.
July	26	**Invitation and Replies**	Learn format of formal and informal invitations and replies.	Design invitation cards.	Role-play social situations.	Draft invitations and responses.	Scenario-based writing tasks.	Communicate effectively in social and formal contexts.
		Report & Article Writing	Develop structured, factual and objective writing skills.	Newspaper-style layout design.	Group reporting activity.	Write report/Article on school event.	Write clear and organized reports.	Communicate effectively in social and formal contexts.
		PROSE The Enemy (Vistas	The lesson explores moral dilemmas and the conflict between humanity and	Learners prepare visual representations	Inclusive discussions encourage	Students write essays focusing on humanitarian	Case-study based evaluation . activities develop reasoning	Students strengthen moral judgement and

			nationalism.	of ethical choices.	students to express personal opinions respectfully.	values	ability.	ethical decision-making skills.
2ND PT- 20/07/26								
Aug								
	24	**PROSE Poets and Pancakes (Flamingo)**	Understand humor, satire and film industry background.	Poster on Indian cinema history	Group discussion on media influence.	Presentation on film personalities.	Character and theme analysis.	Character and theme analysis. Develop comprehension and critical analysis skills.
	24	PROSE On the Face of It(Vistas)	The chapter promotes understanding of self-acceptance, confidence and removal of inferiority complex.	Motivational posters and creative artwork highlight positive self-image.	Classroom dialogue fosters acceptance and emotional sensitivity.	Students conduct awareness projects related to disability inclusion	Situational analysis tasks improve reflective thinking.	Students develop empathy, confidence and inclusive attitudes.
	24	PROSE The Interview (Flamingo)	Understand interview as communication tool and its impact.	Create mock interview script.	Conduct peer interviews.	Prepare questionnaire and record responses.	Analytical questions on viewpoints	Enhance speaking and analytical skills.
3RD PT - 24/08/26								
Sep	23	PROSE Going Places (Flamingo)	Explore adolescence, dreams and reality.	Draw future aspiration chart.	Discussion on career goals	Reflective writing on ambitions.	Character comparison activity.	Develop realistic thinking and self-awareness.
Oct	22	POEM A Roadside Stand (Flamingo)	The poem sensitizes students to rural-urban disparity and socio-economic imbalance.	Learners prepare comparative visual charts of village and city life.	Discussions promote understanding of economic diversity.	Survey-based report writing enhances practical exposure.	Debate activities develop critical and analytical skills.	Students understand rural challenges and social inequality.
Oct	22	Poem – Aunt Jennifer's Tigers (Flamingo)	The poem enables learners to analyze gender	Students create embroidery or symbolic art	Gender sensitivity discussions ensure inclusive	Essay writing on women empowerment	Literary device identification	Students develop awareness

			oppression, symbolism and feminist themes.	representing freedom.	participation.	strengthens expression skills.	enhances textual analysis.	about gender equality and women's issues.
Oct	22	PROSE Memorie s of Childhood (Vistas)	Understand discrimination, identity and social injustice.	Poster on equality and human rights.	Inclusive discussion on diversity.	Research on civil rights movements.	Case-based analytical questions.	Develop empathy and social responsibility.
4TH PT – 23/11/26								
Nov	16	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
Dec	24	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
Jan	14	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
Feb	22	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION	REVISION

SUBJECT: MATHEMATICS (041)
Textbook: 1. **NCERT**
2.**NCERT EXAMPLER**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	**1. Relations and Functions** Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions. **2. Inverse Trigonometric Functions** Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions.	- Understand types of relations and functions. - Identify properties like reflexive, symmetric, transitive. - Graph and interpret inverse trigonometric functions.	Use visual art/graphs to represent relations and functions; sketch unit circle for trigonometry.	Use examples from everyday life to explain relations; provide audio/visual content for differently-abled students.	Graph different functions; classify real-life examples of relations as reflexive, symmetric, transitive.	Activity to find inverse of a function and verify properties; interactive quiz on types of relations.	Students can identify and classify relations and functions, sketch graphs of inverse trig functions, and solve related problems.
May	07	**3. Matrices** Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operations on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non-commutativity of	- Learn matrix operations and properties. - Solve problems using matrices. - Understand invertibility and its applications.	Create visual representations of matrices and operations using color-coded charts.	Provide step-by-step guided examples; allow group work to support peer learning.	Solve problems of addition, multiplication, and inverse of matrices; practical demonstration of matrix operations.	Competency activity: Verify properties of matrix operations; simulate matrices in coding environments or spreadsheet tools.	Students can perform operations on matrices, verify properties, find inverses, and apply them to solve equations.

		multiplication of matrices and existence of nonzero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries).						
June	16	**4. Determinants** Determinant of a square matrix (up to 3 x 3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix. **5. Continuity and Differentiability** Continuity and differentiability, chain rule, derivative of composite functions, derivatives of inverse trigonometric functions like $\sin^{-1} x$, $\cos^{-1} x$	- Compute determinants and apply them to solve problems. - Understand continuity and differentiability of functions. - Apply derivative rules to various functions.	Visual diagrams to represent determinants; plotting continuous and differentiable functions graphically.	Scaffold learning for slower learners; provide manipulatives for determinants; use digital graphing tools.	Practical: Compute determinant-based area of triangles; solve linear systems. Derive and plot simple derivative functions.	Activity: Verify chain rule and derivatives using real-life functions (e.g., population growth).	Students can calculate determinants, find matrix inverses, solve linear equations, and differentiate complex functions with understanding.

		and tan−1 x, derivative of implicit functions. Concept of exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.						
July	26	**6**. **Applications of Derivatives** Applications of derivatives: rate of change of quantities, increasing/decreasing functions, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real-life situations)	- Apply derivatives to real-life situations. - Identify maxima/minima of functions.	Sketch curves to visualize maxima/minima; interactive graphing.	Use real-life contexts (profit, population, motion); provide guided examples.	Practical: Analyze real-life data to find maximum/minimum points.	Competency activity: Solve optimization problems from economics/physic	Students can identify rates of change, and determine maxima/minima of functions.
Aug	24	**7.Integrals** Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial	- Understand integration techniques. - Apply definite integrals to problems. - Connect differentiation and integration.	Use area-under-curve sketches; art-based visualizations.	Stepwise guidance for integration methods; peer-group problem-solving.	Evaluate definite and indefinite integrals using various techniques.	Competency activity: Calculate areas under curves; model real-life growth/decay scenarios	Students can perform integration, evaluate definite integrals, and apply calculus

		fractions and by parts, Evaluation of simple integrals of the following types and problems based on them. $\int \frac{dx}{x^2 \pm a^2}$, $\int \frac{dx}{\sqrt{x^2 \pm a^2}}$, $\int \frac{dx}{\sqrt{a^2 - x^2}}$, $\int \frac{dx}{ax^2+bx+c}$, $\int \frac{dx}{\sqrt{ax^2+bx+c}}$, $\int \frac{px+q}{ax^2+bx+c}\,dx$, $\int \frac{px+q}{\sqrt{ax^2+bx+c}}\,dx$, $\int \sqrt{a^2 \pm x^2}\,dx$, $\int \sqrt{x^2 - a^2}\,dx$, $\int \sqrt{ax^2 + bx + c}\,dx$ Fundamental Theorem of Calculus (without proof). Basic properties of definite integrals and evaluation of definite integrals						in practical problems.
Sep	23	8. **Application of the Integrals** Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only) **9 . Differential Equations** Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of	- Apply integration to find areas. - Solve first-order differential equations.	Graphical representation of areas; flowcharts for solution methods.	Visual stepwise solutions; use examples from physics/biology for context.	Practical: Compute areas under simple curves; solve real-world differential equation problems.	Competency activity: Solve population growth, radioactive decay examples.	Students can calculate areas under curves and solve first-order differential equations.

		first order and first degree. Solutions of linear differential equation of the type: dy $dx + py = q$, where p and q are functions of x or constants. dx $dy + px = q$, where p and q are functions of y or constants						
Oct	22	**10. Vectors and Three-dimensional Geometry** Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors. Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line,	- Understand vectors in 3D space. - Solve vector algebra problems. - Apply linear programming for optimization.	3D models and diagrams; use geometry tools for visualization.	Use manipulatives for vector representation; stepwise guidance for linear programming.	Solve problems on vectors; model linear inequalities graphically.	Competency activity: Optimization problems in real-life contexts (business, production).	Students can perform vector operations, solve 3D geometry problems, and formulate/solve linear programming problems.

		skew lines, shortest distance between two lines. Angle between two lines. **11. Linear Programming**						
Nov	16	**12. Probability** Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem.	- Understand probability rules and applications. - Solve conditional and independent event problems. - Apply Bayes' theorem in real-life contexts.	Probability visualizations with diagrams; charting tree diagrams.	Use practical examples: games, experiments; interactive digital tools for simulations.	Conduct probability experiments (dice, coins).	Competency activity: Calculate real-life probabilities (disease testing, risk assessment).	Students can compute probabilities, apply conditional rules, and interpret outcomes in real-life situations.
Dec	24	**REVISION**	- Consolidate learning. - Strengthen problem-solving skills.	Posters and mind-maps for visual revision.	Peer tutoring; differentiated tasks for varying abilities.	Mini-projects integrating multiple chapters.	Competency activity: Mixed problem-solving sessions, real-life case studies.	Students can solve integrated problems across chapters with confidence.
Jan	14	**REVISION**	- Focus on board-level questions. - Practice time management and accuracy.	Posters and mind-maps for visual revision.	Peer tutoring; differentiated tasks for varying abilities.	Mini-projects integrating multiple chapters.	Competency activity: Mixed problem-solving sessions, real-life case studies.	Students can solve integrated problems across chapters with confidence.
Feb	22	**REVISION**	- Revise entire syllabus. - Apply learning to new problems.	Posters and mind-maps for visual revision.	Peer tutoring; differentiated tasks for varying abilities.	Mini-projects integrating multiple chapters.	Competency activity: Mixed problem-solving sessions, real-life case studies.	Students can solve integrated problems across chapters with confidence.

SUBJECT: PHYSICS (042)
Textbook: 1. **NCERT**
2.**NCERT EXAMPLER**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	**1. Electrostatics (Electric Charges and Fields & Electrostatic Potential and Capacitance)** • Electric charges, Conservation of charge, Coulomb's law-force between two- point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside). • Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and	Apply Coulomb's law & superposition principle. Explain electric field, dipole, Gauss's law applications. Calculate electric potential & capacitance. Solve capacitor combinations.	Field-line drawing art; 3D dipole models	Visual simulations; stepwise derivations; peer explanation	Verification of Coulomb's inverse square law (simulation)	Capacitor design challenge (optimize capacitance)	Students solve electrostatics numericals & explain field concepts conceptually

		without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only)						
May	07	**2. Current Electricity** • Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.	Explain drift velocity & Ohm's law. Analyze V–I characteristics. Apply Kirchhoff's rules & Wheatstone bridge. Calculate power & internal resistance.	Circuit diagram sketching with color coding	Lab-based learning; guided circuit building	Verification of Ohm's law; Meter bridge experiment	Household wiring safety audit	Students analyze and solve complex circuit problems confidently
June	16	**3.Magnetic Effects of Current and Magnetism & Matter** • Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter. • Bar magnet, bar magnet as an	Apply Biot–Savart & Ampere's law. Calculate force on moving charge & conductor. Explain galvanometer working. Distinguish magnetic materials.	Magnetic field pattern art using iron filings	Demonstrations; tactile experiments	Study of magnetic field using compass; Galvanometer conversion	Design a simple electric motor model	Students apply magnetic force laws in practical situations

		equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines. Magnetic properties of materials- Para-, dia- and ferro – magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.						
July	26	**4.Electromagnetic Induction and Alternating Currents** **Electromagnetic induction;** Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction. **Alternating currents,** peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer.	State Faraday's & Lenz's laws. Explain self & mutual induction. Analyze LCR circuits & resonance. Calculate RMS values & power factor.	Phasor diagram drawing	Concept animations; step-by-step phasor explanation	AC circuit experiment; Transformer model	Energy efficiency case study	Students interpret AC circuits and EMI applications numerically
Aug	24	5.**Electromagnetic waves ,Ray Optics and Optical Instruments** Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers,	Explain displacement current & EM spectrum. Apply mirror & lens formula. Analyze TIR & optical fibers. Calculate magnifying power of microscope & telescope.	Spectrum wheel art; Ray diagram drawing	Ray-box demonstrations; visual aids	Verification of laws of reflection & refraction	Optical instrument model making	Students solve optics numericals & explain optical instruments

		refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism. Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.						
Sep	23	**6. Wave Optics** Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only).	Explain Huygens' principle. Analyze interference & diffraction. Calculate fringe width (YDSE). Differentiate interference & diffraction.	Interference pattern art activity	Simulation-based visualization	YDSE experiment	Laser light diffraction observation	Students explain wave behavior using superposition principle
Oct	22	**7.Dual Nature of Radiation and Matter, Atoms and Nuclei, Semi-conductor Electronics: Materials, Devices and Simple Circuits** Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Experimental study of photoelectric effect Matter waves-wave nature of particles, de-Broglie relation. Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom, Expression for radius of nth possible orbit, velocity and energy of electron in nth orbit, hydrogen line spectra (qualitative treatment only).	Explain photoelectric effect & Einstein's equation. Apply de-Broglie relation. Describe atomic models. Calculate binding energy. Explain p-n junction & rectifier action.	Atomic model crafting	Concept mapping; real-life electronics examples	Photoelectric effect simulation; Diode rectifier experiment	Solar cell efficiency study	Students relate modern physics concepts to technology applications

		Composition and size of nucleus, nuclear force Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion. Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode - diode as a rectifier						
Nov	16	**Revision**	Strengthen conceptual clarity & numerical solving skills	Concept maps	Remedial worksheets	Full syllabus practical revision	Case-study problem solving	Students demonstrate improved problem-solving accuracy
Dec	24	**Revision**	Strengthen conceptual clarity & numerical solving skills	Concept maps	Remedial worksheets	Full syllabus practical revision	Case-study problem solving	Students demonstrate improved problem-solving accuracy
Jan	14	**Revision**	Strengthen conceptual clarity & numerical solving skills	Concept maps	Remedial worksheets	Full syllabus practical revision	Case-study problem solving	Students demonstrate improved problem-solving accuracy
Feb	22							

SUBJECT: CHEMISTRY (043)
Textbook: 1. **NCERT TEXTBOOK**
2.NCERT EXEMPLAR

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	**Solutions** Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapor pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factorTypes of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties - relative lowering of vapor pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties,	• Understand types of solutions and concentration terms. • Explain vapour pressure, Raoult's law, and ideal & non-ideal solutions. • Interpret colligative properties. • Solve numerical problems based on colligative properties. • Determine molar mass using Van't Hoff factor.	Create graphical charts showing boiling point elevation & freezing point depression. • Poster/model depicting osmosis in plants (link with visual arts). • Concept mapping through infographic design.	• Use visual aids, flowcharts, and colour coding for formulas. • Peer tutoring for numericals. • Provide step-wise solved examples for slow learners. • Worksheets with differentiated difficulty levels.	• Preparation of solutions of known concentration. • Determination of molar mass by depression in freezing point (virtual/record based if lab not available).	• Case study on antifreeze in automobiles. • Data-based numerical worksheets. • Real-life problem solving on osmotic pressure in IV fluids.	• Defines and differentiates types of solutions. • Calculates concentration terms accurately. • Applies Raoult's law in problem solving. • Computes colligative properties numerically. • Explains abnormal molecular mass using Van't Hoff factor.

		abnormal molecular mass, Van't Hoff factor						
May	07	**Chemical Kinetics** Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order 10 reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius equation. **Electrochemistry** Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of	. • Define rate of reaction and express rate law. • Determine order and molecularity of reactions. • Derive and apply integrated rate equations (zero & first order). • Calculate half-life and rate constant. • Explain temperature dependence using Arrhenius equation. • Interpret graphical representation of reaction rates. • Explain redox reactions in electrochemical cells. • Define electrode potential and EMF of a cell. • Apply Nernst equation in numerical problems. • Calculate conductance and molar conductivity. • Interpret Kohlrausch's law and its applications. • Describe working of batteries, fuel cells and corrosion mechanism.	• Graph plotting activity (Rate vs Concentration; ln[A] vs time). • Concept flowchart of collision theory. • Poster on role of catalysts in industry. Design a working model/poster of galvanic cell. • Flowchart illustrating corrosion process (link with environmental art). • Battery structure sketch with labeled parts.	. Stepwise derivation explanation with visual aids. • Graph templates for practice. • Peer-assisted numerical solving. • Simplified notes & recap worksheets for slow learners. Demonstration-based teaching using low-cost cell models. • Visual simulations for Nernst equation understanding. • Stepwise numerical practice for diverse learners. • Mixed-ability group tasks for cell construction.	. Study of effect of concentration on reaction rate (demonstration). • Graph-based analysis of first order reaction data Construct a Daniell cell and measure EMF. • Study variation of conductivity with concentration. • Observation of corrosion in iron sample.	•. Case study on decomposition of hydrogen peroxide. • Data interpretation exercises from experimental tables. • HOTS numerical problem sets. • Case study on lithium-ion batteries in EVs. • Data interpretation of conductivity vs concentration graph. • Real-life problem solving on prevention of corrosion.	• Calculates rate constant and half-life correctly. • Identifies order of reaction from data/graph. • Applies Arrhenius equation in numerical problems. • Analyzes graphical data accurately. • Explains practical applications of kinetics in industry. Constructs and labels electrochemical cells. • Calculates EMF using Nernst equation. • Interprets conductivity data correctly. • Explains applications of electrochemistry in daily life. • Analyzes corrosion and

		electrolysis (elementary idea), dry cell- electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.						suggests preventive measures.
June	16	**d and f Block Elements** General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first row transition metals – metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of K2Cr2O7 and KMnO4. **Coordination Compounds** Werner's Theory of Coordination Compound, Definition of Some important terms pertaining to Coordination Compounds, Nomenclature of Coordination	Describe electronic configuration of d- and f-block elements. • Explain trends in properties and oxidation states. • Interpret colour and magnetic behaviour. • Explain lanthanoid contraction and its effects. • Describe preparation, properties and uses of $KMnO_4$ and $K_2Cr_2O_7$. Describe Werner's Theory of Coordination Compound. Nomenclature of Coordination Compounds	• Periodic table colouring activity (highlighting blocks). • Chart/model showing lanthanoid contraction trend. • Infographic on uses of transition metals in daily life Create a **Rangoli** showing: Octahedral geometry	• Visual periodic table aids. • Property comparison tables for conceptual clarity. • Simplified oxidation state charts. • Group discussion for concept reinforcement. All students can understand concepts like ligands, coordination number, and bonding	Identification of coloured ions (demonstration). • Study of oxidising property of $KMnO_4$ (record-based if lab constraints). Make a 3D model of an octahedral complex using: Thermocol balls Sticks	Case study on role of transition metals as catalysts in industry. • Data-based comparison of atomic radii trends. • HOTS questions on magnetic properties. Case study on Coordination Compounds LOA , Quiz & PYQ	• Identifies position and configuration of d- and f-block elements. • Explains trends in oxidation states and properties. • Analyzes lanthanoid contraction effects. Theory of Coordination Compound. Nomenclature of Coordination Compounds . Isomerism in Coordination Compounds Bonding in coordination

		Compounds. Isomerism in Coordination Compounds, Bonding in coordination compounds, Bonding in Metal Carbonyls, Importance and Applications of Coordination Compounds.	. Isomerism in Coordination Compounds Bonding in coordination compounds, Bonding in Metal Carbonyls, Importance and Applications of Coordination Compounds	Tetrahedral geometry		Colors Label: Metal ion Ligands		compounds, Bonding in Metal Carbonyls, Importance and Applications of Coordination Compounds
July	26	**Haloalkanes and Haloarenes** Haloalkanes: Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.	• Define and explain coordination compounds. • Understand the nomenclature system for coordination compounds. • Identify ligands, coordination number, and types of ligands. • Explain bonding in coordination compounds using Valence Bond Theory. • Describe isomerism in coordination compounds. • Understand magnetic and colour properties of coordination complexes. • Discuss applications of coordination compounds in real life (e.g., medicine, industry).	• Poster of coordination compound structures with labels. • Model building of coordination complexes. • Diagram of isomerism in coordination compounds (cis-trans). Poster of nucleophilic substitution mechanisms (SN1, SN2). • Infographic on environmental impact of CFCs. • Model representing Grignard reagent formation.	• Stepwise presentation of nomenclature for clarity. • Peer interaction for complex structure building. • Visual aids for bonding and isomerism. • Use real-world examples to link theory to practice (e.g., drugs). Step-by-step explanation for SN1 and SN2 reaction mechanisms. • Use visual aids for substitution and elimination reactions. • Hands-on practice of	• Preparation of solutions with coordination compounds (record-based). • Study of isomerism in coordination complexes (simulation). • Study of nucleophilic substitution reactions (modeling). • Demonstration of preparation of Grignard reagent. • Experiment on	• Case study on $[Co(NH_3)_6]^{3+}$ in medicine (cobalt chemotherapy). • Discuss application of coordination compounds in metal extraction Case study on the role of DDT in pest control. • Data analysis of substitution reaction rates (SN1 vs SN2). • Discussion on eco-friendly alternatives to CFCs.	• Demonstrates understanding of coordination compound nomenclature. • Identifies and applies Valence Bond Theory in bonding. • Differentiates types of isomerism in coordination compounds. • Explains the practical application of coordination chemistry in industries.

			Classify haloalkanes and haloarenes. • Explain nucleophilic substitution reactions (SN1 & SN2). • Understand elimination reactions and their mechanisms. • Relate physical and chemical properties to structure. • Describe preparation methods of key compounds like Grignard reagents. • Discuss industrial applications and environmental concerns (e.g., CFCs, DDT).		Grignard reagent preparation (record-based). • Discuss real-world applications and implications of halogenated compounds.	iodoform reaction (virtual/recorded).		Classifies and explains nucleophilic substitution reactions. • Identifies and applies elimination reaction mechanisms. • Explains preparation and uses of important haloalkanes and haloarenes. • Discusses environmental impact of halogenated compounds.
Aug	24	**Alcohols, Phenols and Ethers** Alcohols: Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol. Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions,	• Classify alcohols, phenols, and ethers. • Understand methods of preparation of alcohols and phenols. • Explain various reactions of alcohols (oxidation, dehydration, esterification). • Study the acidity of phenols and the factors affecting it. • Prepare ethers and understand their properties. • Explore industrial	• Create models or posters demonstrating esterification and oxidation reactions. • Visual representation of electrophilic substitution in phenols. • Diagram for preparation of ethers with labeled steps.	• Use real-life examples (e.g., alcoholic drinks, antiseptics) for better understanding. • Provide simplified reaction mechanisms with stepwise explanations. • Group discussions for sharing examples of alcohols and phenols in daily life.	• Preparation of alcohols (simple distillation) and phenols (record-based). • Synthesis of an ester from alcohol and carboxylic acid. • Study of ether formation by dehydration of alcohols.	• Case study on the use of phenol in pharmaceuticals. • Demonstration of esterification reaction with practical examples. • Data analysis of alcohols and phenols in industrial applications.	• Classifies alcohols, phenols, and ethers correctly. • Applies reaction mechanisms in solving problems. • Describes preparation methods and industrial applications. • Demonstrates understanding

		uses of phenols. Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses	applications of alcohols and phenols.					of the acidity of phenols.
Sep	23	**Aldehydes, Ketones and Carboxylic Acids** Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties, mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes, uses. 11 Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses. **Term-1 Revision**	• Classify and name aldehydes, ketones, and carboxylic acids. • Understand the preparation methods and reactions of aldehydes and ketones. • Study important reactions of carboxylic acids and their derivatives. • Understand the acidity of carboxylic acids and how it affects their reactions.	Diagrammatic representation of nucleophilic addition in aldehydes. • Flowchart showing steps of esterification reactions. • Creative illustration of carboxyl group and its derivatives.	• Use real-world examples (e.g., aldehydes in perfumes, carboxylic acids in food preservation) to engage students. • Visual diagrams to demonstrate the mechanisms of nucleophilic addition and reduction. • Provide differentiated worksheets (easy to complex) based on students' abilities.	Preparation of aldehydes by oxidation of alcohols. • Esterification reaction in the lab (virtual or real). • Synthesis of carboxylic acid derivatives (recorded).	Case study on the role of aldehydes and ketones in the fragrance industry. • Practical demonstration of ester formation in fruit-flavored drinks. • Real-life problem-solving for decarboxylation reactions in biochemical processes.	• Names and classifies aldehydes, ketones, and carboxylic acids. • Applies reaction mechanisms to solve problems. • Describes preparation and properties of carboxylic acid derivatives. • Demonstrates understanding of acidic character in carboxylic acids.
Oct	22	**Amines** Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.	• Classify and name amines based on their structure. • Unssderstand the basicity of amines and the factors affecting it. • Study the preparation methods of amines. • Explore important reactions of amines (diazotization, nucleophilic substitution). • Identify and describe the properties of aromatic amines.	• Diagram of amine structures and their classification. • Flowchart illustrating the reaction mechanisms of diazotization. • Visual models to show the basicity of amines.	• Provide step-by-step reactions and mechanisms for clarity. • Use real-world examples (e.g., dyes, analgesics) to enhance understanding. • Use simplified illustrations and animations for the chemical processes.	• Preparation of amines from nitro compounds (reduction reaction). • Synthesis of aromatic amines (record-based if lab constraints). • Study of diazotization reaction with practical examples.	• Case study on the role of amines in the pharmaceutical industry. • Hands-on practice for the synthesis of dyes from aromatic amines. • Problem-solving on the application of amines in everyday life.	• Classifies and names amines correctly. • Understands the factors affecting the basicity of amines. • Applies reaction mechanisms in practical scenarios. • Demonstrates understanding of amine properties and

		Biomolecules Carbohydrates - Classification (aldoses and ketoses), monosaccahrides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates. Proteins - Elementary idea of - amino acids, peptide bond, polypeptides, proteins, structure of proteins - primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins; enzymes. Hormones - Elementary idea excluding structure. Vitamins - Classification and functions.	• Classify and describe the structure of carbohydrates, proteins, and nucleic acids. • Understand the structure and function of enzymes and coenzymes. • Explain protein structure and amino acid sequences. • Identify vitamins and their roles in the body. • Describe the structure and function of DNA and RNA.	Model showing the structure of carbohydrates, proteins, and nucleic acids. • Creative representation of enzyme-substrate interaction. • Artistic diagram illustrating DNA double helix structure.	Simplify protein structures through diagrams. • Use flow charts to explain metabolic pathways. • Link everyday food items and their relation to biomolecules for contextual learning.	Study the structure of common biomolecules like glucose, protein, and DNA (record-based). • Simple enzyme-catalyzed reaction demonstration. • Extraction of DNA from plant tissue.	Case study on the role of enzymes in digestion. • Practical on the importance of vitamins in human health. • Analysis of biomolecule content in food items.	their real-world applications. • Classifies and describes biomolecules accurately. • Understands the biochemical functions of proteins, enzymes, and nucleic acids. • Explains the structure-function relationship in biomolecules. • Demonstrates awareness of the importance of biomolecules in nutrition and health.
Nov	16	The following topics are included in the syllabus but will be **assessed only formatively** to reinforce understanding without adding to summative assessments **1.Surface Chemistry** - Adsorption - physisorption and chemisorption, factors affecting adsorption of						

		gases on solids, colloidal state distinction between true solutions, colloids and suspension; lyophilic, lyophobic properties of colloids; coagulation, emulsion - types of emulsions**.** **2. General Principles and Processes of Isolation of Elements** - Principles and methods of extraction - concentration, oxidation, reduction - electrolytic method and refining 3. **Polymers** – Polymerisation, Homopolymers and copolymer with few examples **4. Chemistry in Everyday life** - Chemicals in medicines - analgesics, tranquilizers antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines. Chemicals in food - preservatives, artificial sweetening agents, antioxidants. **Pre board -1 revision**						
Dec	24	**Pre-board-2 revision**						
Jan	14							
Feb	22							

SUBJECT: BIOLOGY
Textbook: 1. **NCERT**
2.**NCERT EXAMPLER**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	**Chapter 1 : Sexual Reproduction in Flowering Plants** (Flower structure; Development of male and female gametophytes; Pollination–types, agencies and examples; Outbreeding devices; Pollen-Pistil interaction; Double fertilization; Post fertilization events– Development of endosperm and embryo, Development of seed and formation of fruit; Special modes– apomixis, parthenocarpy, polyembryony; Significance of seed and fruit formation.) **Chapter 2 : Human Reproduction** (Male and female reproductive systems; Microscopic anatomy of testis and ovary; Gametogenesis-spermatogenesis & oogenesis; Menstrual cycle; Fertilisation, embryo development upto blastocyst formation, implantation; Pregnancy	A. Sexual Reproduction in Flowering Plants • Describe structure of flower and floral whorls. • Explain pollination, types of pollination, and mechanisms of self- and cross-pollination. • Describe fertilization process in angiosperms. • Understand development of zygote, embryo, endosperm, seed, and fruit. • Explain apomixis, polyembryony, and their significance. B. Human Reproduction • Describe male and female reproductive systems and their structures. • Explain gametogenesis: spermatogenesis and oogenesis. • Describe menstrual cycle, ovulation, and fertilization. • Explain implantation, placenta formation, and development of embryo and fetus. • Understand parturition and lactation. C. Reproductive Health • Define reproductive health and its importance.	• **Flower and Gamete Models:** 3D models of flower structure, ovule, and pollen grains. • **Fertilization Flowchart:** Illustrate pollination, fertilization, and seed formation. • **Human Reproductive System Charts:** Label male and female reproductive organs. • **Menstrual Cycle Diagram:** Visualize cycle phases and hormonal regulation. • **Preventive Health Posters:** Charts/infographics on STIs, birth control methods, and reproductive hygiene.	• Use enlarged diagrams, videos, and animations for reproductive processes. • Provide stepwise charts and simplified notes for complex cycles and processes. • Encourage peer discussion and role-play (fertilization, hormone regulation). • Use tactile 3D models for differently-abled learners. • Offer alternative assessment options (oral presentation, model-making, poster presentation, digital charts).	Suggested Projects • Study floral adaptations for pollination in local plants. • Survey awareness of reproductive health and contraceptive methods. • Comparative study of human reproductive systems using models/charts. • Prepare charts showing stages of fertilization, embryo, and fetal development. Practical Activities • Observation of pollen germination under microscope. • Study prepared slides of ovary, ovule, and embryo sac.	• **Case Study:** Why is cross-pollination advantageous in plants? • **Application Question:** How do hormonal contraceptives prevent pregnancy? • **Data Interpretation:** Analyze graphs of hormone levels during menstrual cycle. • **Diagram-Based Reasoning:** Identify structures in human reproductive system or flower. • **Higher Order Thinking:** How does reproductive health education impact population control and maternal health?	• Explain sexual reproduction in flowering plants clearly. • Describe human reproductive system and processes of gametogenesis, fertilization, and fetal development. • Understand menstrual cycle, hormonal regulation, and parturition. • Apply knowledge of reproductive health, birth control, and prevention of STIs. • Demonstrate observation, analytical, and diagrammatic skills. • Work collaboratively on projects, charts, models,

		and placenta formation (Elementary idea); Parturition (Elementary idea); Lactation (Elementary idea) **Chapter 3 : Reproductive Health** (Need for reproductive health and prevention of sexually transmitted diseases (STD); Birth control- Need and Methods, Contraception and Medical Termination of Pregnancy (MTP); Amniocentesis; Infertility and assisted reproductive technologies – IVF, ZIFT, GIFT)	• Explain sexually transmitted infections (STIs) and preventive measures. • Understand birth control methods: natural, barrier, hormonal, intrauterine devices, sterilization. • Discuss maternal health and family welfare programs. • Emphasize need for population education and responsible reproductive behavior.			• Diagrammatic representation of menstrual cycle and reproductive organs. • Charting various birth control methods and their mechanisms.		and awareness campaigns. • Make informed decisions related to reproductive health and family welfare.
May	07	**Chapter 11 : Organisms and Populations** (Habitat and niche; Population and ecological adaptations; Population interactions– mutualism, competition, predation, parasitism; Population attributes–growth, birth rate and death rate, age distribution.)	• Define population and understand its characteristics: size, density, birth rate, death rate, and age structure. • Explain growth patterns of populations: exponential and logistic growth. • Understand limiting factors affecting population size. • Describe interactions within populations: competition, predation, and symbiosis.	• **Population Growth Graphs:** Illustrate exponential and logistic growth curves. • **Interaction Diagrams:** Draw diagrams showing predation, competition, mutualism, and parasitism. • **Carrying Capacity Models:** Create 3D or chart-based models of population-	• Use clear, color-coded diagrams and flowcharts for population interactions. • Provide simplified tables and stepwise explanations for growth patterns. • Encourage peer discussion and group analysis of local ecosystems. • Use tactile models or charts	Suggested Projects • Study population density of a plant or animal species in a local habitat. • Analyze age structure or growth pattern of a population in a nearby ecosystem. • Survey human population growth trends and factors affecting them.	• **Case Study:** How do limiting factors regulate rabbit populations in a forest? • **Application Question:** Why does overpopulation affect food availability in ecosystems? • **Data Interpretation:** Analyze population growth graphs and predict future trends. • **Diagram-Based Reasoning:**	• Explain population characteristics and growth patterns clearly. • Identify factors regulating population size in natural ecosystems. • Describe interactions within populations and their ecological significance. • Analyze graphs and data to understand population dynamics.

			• Explain carrying capacity and population regulation.	environment balance. • **Food Web Integration:** Show population interdependence in ecosystems using flowcharts. • **Creative Posters:** Highlight conservation strategies and importance of population regulation.	for differently-abled learners. • Offer alternative assessment methods (oral explanation, chart/model making, digital posters).	• Prepare charts showing interactions like predator-prey relationships in local ecosystems.	Identify types of interactions in ecological diagrams. • **Higher Order Thinking:** How does population dynamics affect biodiversity and ecosystem stability?	• Apply population concepts to conservation, management, and sustainability. • Demonstrate observation, analytical, and diagrammatic skills. • Work collaboratively on projects, charts, and models related to population ecology.
June	16	**Chapter 12 : Ecosystem** (Patterns, components; productivity and decomposition; Energy flow; Pyramids of number, biomass, energy) **Chapter 13 : Biodiversity and Conservation** (Concept of Biodiversity; Patterns of Biodiversity; Importance of Biodiversity; Loss of Biodiversity; Biodiversity conservation; Hotspots, endangered organisms, extinction, Red Data Book, biosphere reserves, National parks and sanctuaries) **Chapter 8 : Microbes in Human Welfare** (In household food	A. Ecosystem • Define ecosystem and describe its components: abiotic and biotic factors. • Explain energy flow in ecosystems and trophic levels. • Understand ecological pyramids, food chains, and food webs. • Describe productivity: primary and secondary productivity. • Explain ecological succession and types of ecosystems (aquatic and terrestrial). • Understand biogeochemical cycles: carbon, nitrogen, phosphorus, and water. B. Biodiversity and Conservation • Define biodiversity and levels of biodiversity:	• **Ecosystem Flowcharts:** Energy flow, food chains, and food webs. • **Pyramids and Cycles Charts:** Ecological pyramids and biogeochemical cycles. • **Biodiversity Posters:** Illustrate genetic, species, and ecosystem diversity; conservation methods. • **Microbe Models:** Clay or digital models of bacteria, fungi, and viruses; industrial and	• Use color-coded diagrams, videos, and animations for ecosystems, cycles, and microbial processes. • Provide simplified notes and stepwise flowcharts for biogeochemical cycles and microbial applications. • Encourage group discussions and peer learning on conservation and microbial applications.	Suggested Projects • Survey of local ecosystem and identification of producers, consumers, and decomposers. • Study of local biodiversity and preparation of species inventory. • Preparation of compost or vermicompost to demonstrate microbial activity. • Case study of threatened species and conservation strategies in	• **Case Study:** How does deforestation affect local biodiversity and ecosystem stability? • **Application Question:** How do biofertilizers improve soil fertility? • **Data Interpretation:** Analyze productivity or	• Explain structure and functioning of ecosystems and energy flow. • Describe biogeochemical cycles and ecological succession. • Understand and appreciate biodiversity and apply conservation methods. • Recognize beneficial uses of microbes in agriculture, industry, and environment. • Apply ecological and

		processing, industrial production, sewage treatment, energy generation and as biocontrol agents and biofertilizers)	genetic, species, and ecosystem diversity. • Explain importance of biodiversity for ecological balance and human welfare. • Understand threats to biodiversity: habitat loss, overexploitation, pollution, invasive species. • Describe conservation strategies: in situ (national parks, biosphere reserves) and ex situ (zoos, botanical gardens, seed banks). • Understand Red Data Book and IUCN categories of threatened species. C. Microbes in Human Welfare • Understand role of microbes in agriculture (biofertilizers, nitrogen fixation, composting). • Explain microbes in industry: antibiotics, alcohol, organic acids, vitamins. • Describe microbes in sewage treatment and bioremediation. • Understand beneficial and harmful effects of microbes in daily life. • Study applications of microbes in medicine, food industry, and environment.	agricultural applications. • **Infographics:** Role of microbes in human welfare and environment	• Use tactile 3D models for differently-abled learners. • Offer alternative assessments (oral presentations, chart-making, digital models, project reports).	local/national context. • Analyze role of microbes in food production and waste management. Practical Activities • Observation of pond ecosystem or garden ecosystem for trophic interactions. • Study of nitrogen-fixing bacteria or yeast fermentation. • Preparation of charts showing ecological pyramids or biogeochemical cycles. • Visit to local sewage treatment plant, botanical garden, or microbial lab (if possible).	species richness graphs. • **Diagram-Based Reasoning :** Identify trophic levels, ecological pyramids, or microbial roles. • **Higher Order Thinking:** How can microbes and biodiversity conservation be integrated for sustainable development?	microbial knowledge to real-life problems. • Demonstrate observation, analytical, and practical skills through models, projects, and experiments. • Work collaboratively on ecosystem surveys, biodiversity charts, and microbial studies.

July	26	**Chapter 4 : Principles of Inheritance and Variation** (Mendelian Inheritance; Deviations from Mendelism– Incomplete dominance, Co-dominance, Multiple alleles and Inheritance of blood groups, Pleiotropy; Elementary idea of polygenic inheritance; Chromosome theory of inheritance; Chromosomes and genes; Sex determination– In humans, birds, honey bee; Linkage and crossing over; Sex linked inheritance- Haemophilia, Colour blindness; Mendelian disorders in humans– Thalassemia; Chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.)	• Understand Mendelian principles of inheritance: laws of segregation and independent assortment. • Explain monohybrid and dihybrid crosses with Punnett square analysis. • Understand deviation from Mendelian ratios: incomplete dominance, codominance, multiple alleles, and pleiotropy. • Describe inheritance of blood groups in humans. • Understand sex determination mechanisms: XY system, ZW system, and haplo-diploid system. • Explain chromosomal basis of inheritance, linkage, and recombination. • Describe mutations, their types, and significance in variation. • Relate inheritance and variation to evolution and breeding programs	**Punnett Square Posters:** Visual representation of monohybrid, dihybrid crosses, and blood group inheritance. **Pedigree Charts:** Illustrate human traits and disorders. **Chromosome Diagrams:** Label chromosomes showing linkage, recombination, and sex determination. **Variation Infographics:** Show types of mutations and their effects. **Genetic Cross Models:** Clay or digital models to simulate inheritance patterns.	• Use clear, color-coded diagrams and flowcharts for inheritance patterns. • Provide simplified tables for Mendelian and non-Mendelian traits. • Encourage peer learning and group problem-solving for Punnett square exercises. • Use tactile models for differently-abled learners. • Provide alternative assessments (oral explanation, chart/model making, digital simulations).	Suggested Projects • Study inheritance of simple traits (e.g., tongue rolling, ear lobe type) in family or classmates. • Construct Punnett squares for blood group inheritance in a sample population. • Observe phenotypic variations in plants like pea or maize. • Prepare pedigree charts for selected inherited traits. Practical Activities • Solve monohybrid and dihybrid cross problems. • Analyze genetic ratios from given data sets. • Diagrammatic representation of sex-linked inheritance. • Prepare charts illustrating types of	• **Case Study:** How do mutations contribute to evolution and variation in populations? • **Application Question:** Why are blood group variations important in transfusion medicine? • **Data Interpretation:** Analyze offspring ratios in Mendelian and non-Mendelian crosses. • **Diagram-Based Reasoning:** Identify chromosomal or genetic disorders in pedigree diagrams. • **Higher Order Thinking:** How can knowledge of inheritance be applied to plant and animal breeding programs?	• Explain Mendelian and non-Mendelian inheritance patterns. • Construct and analyze Punnett squares for monohybrid, dihybrid, and sex-linked traits. • Identify types of mutations and their significance in variation. • Explain mechanisms of sex determination in different organisms. • Apply knowledge of inheritance to human traits, breeding, and genetic counseling. • Demonstrate observation, analytical, and diagrammatic skills through projects and models. • Work collaboratively on genetic surveys, pedigree charts, and cross experiments.

						mutations and variation.		
Aug	24	**Chapter 5 : Molecular Basis of Inheritance** (Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; Transcription, genetic code, translation; Gene expression and regulation– Lac Operon; Genome and human genome project; DNA finger printing.)	• Understand the structure and function of DNA and RNA. • Explain the role of nucleotides and base pairing in genetic information storage. • Describe DNA replication, transcription, and translation processes. • Understand the concept of the genetic code and its universality. • Explain the central dogma of molecular biology. • Understand gene expression and regulation in prokaryotes and eukaryotes. • Describe mutations at molecular level and their effects on protein synthesis. • Relate molecular mechanisms to heredity, variation, and biotechnology applications.	• **DNA and RNA Models:** 3D models using clay, beads, or digital tools to illustrate double helix and single-stranded RNA. • **Flowcharts:** Diagram replication, transcription, and translation processes. • **Genetic Code Charts:** Illustrate codons and amino acid translation. • **Mutation Posters:** Visualize types of mutations and effects on proteins. • **Central Dogma Diagram:** Creative representation of DNA → RNA → Protein.	• Use enlarged diagrams, animations, and videos for DNA structure, replication, and protein synthesis. • Provide simplified stepwise flowcharts for replication, transcription, and translation. • Encourage group discussions and peer teaching for molecular processes. • Use tactile models for differently-abled learners. • Offer alternative assessments (oral explanation, model-making, flowcharts, digital presentations).	Suggested Projects • Build a 3D DNA or RNA model to demonstrate structure. • Prepare charts showing steps of replication, transcription, and translation. • Analyze codon-amino acid relationships using codon tables. • Study historical experiments (Griffith, Avery, Hershey-Chase) that led to DNA as genetic material. Practical Activities • Observation of DNA extraction from plant/animal sources. • Constructing flowcharts of molecular processes.	• **Case Study:** How does a point mutation affect protein structure and function? • **Application Question:** Why is understanding DNA replication important in biotechnology? • **Data Interpretation:** Analyze experimental data demonstrating DNA as genetic material. • **Diagram-Based Reasoning:** Identify parts of DNA, RNA, and processes from labeled diagrams. • **Higher Order Thinking:** How can molecular biology concepts be applied in genetic engineering and medicine?	• Describe DNA and RNA structure and function accurately. • Explain processes of DNA replication, transcription, and translation. • Demonstrate understanding of genetic code and protein synthesis. • Relate molecular mechanisms to inheritance, variation, and biotechnology applications. • Demonstrate observation, analytical, and diagrammatic skills. • Work collaboratively on models, charts, and molecular biology projects. • Apply molecular biology knowledge to solve problems in genetics, medicine, and research.

Sep	23	**Chapter 9 : Biotechnology : Principles and Processes** (Genetic engineering (Recombinant DNA technology) **Chapter 10 : Biotechnology and its Applications** (Human insulin and vaccine production, gene therapy; Genetically modified organisms- Bt crops; Transgenic Animals; Biosafety issues– Biopiracy and patents.)	A. Biotechnology – Principles and Processes • Define biotechnology and understand its scope in modern biology. • Explain recombinant DNA technology and its principles. • Understand steps involved: isolation of genetic material, cutting and joining DNA, cloning, and expression of genes. • Describe tools used in biotechnology: restriction enzymes, vectors, plasmids, and polymerase chain reaction (PCR). • Understand microbial, plant, and animal biotechnology techniques. • Relate biotechnology principles to research, agriculture, and medicine. B. Biotechnology and its Applications • Describe applications in agriculture: genetically modified crops, pest-resistant varieties, biofertilizers. • Explain applications in medicine: production of	• **Biotechnology Flowcharts:** Steps of recombinant DNA technology and PCR. • **Cloning Diagrams:** Visual representation of gene cloning and vector usage. • **Application Posters:** Illustrate uses of biotechnology in agriculture, medicine, industry, and environment. • **Infographics:** Ethical concerns and biosafety measures in biotechnology. • **3D Models:** Plasmids, restriction enzymes, or gene constructs using clay or digital tools.	• Use videos and animations to demonstrate molecular techniques, cloning, and fermentation. • Provide stepwise charts and diagrams of biotechnological processes. • Encourage group discussions on applications and ethical considerations. • Use tactile models for differently-abled learners. • Offer alternative assessments (oral explanation, model-making, chart/digital presentations).	Suggested Projects • Demonstrate microbial fermentation to produce alcohol or yogurt. • Study a locally available genetically modified crop and its benefits. • Prepare charts on biotechnology applications in medicine and environment. • Research ethical issues and present a report on biosafety measures. Practical Activities • Observation of microbes used in fermentation. • Preparation of flowcharts showing steps of gene cloning. • Simulate PCR or transformation using models. • Chart presentation of biotechnological tools and techniques.	• **Case Study:** How does recombinant DNA technology help in producing human insulin? • **Application Question:** What are the advantages of GM crops over traditional crops? • **Data Interpretation:** Analyze data from fermentation or microbial growth experiments. • **Diagram-Based Reasoning:** Identify plasmid, restriction enzyme sites, and cloning steps. • **Higher Order Thinking:** How can biotechnology be applied to solve environmental and medical challenges?	• Explain principles and processes of biotechnology clearly. • Describe tools and techniques used in recombinant DNA technology. • Identify and explain applications of biotechnology in agriculture, medicine, industry, and environment. • Understand ethical and social considerations associated with biotechnological practices. • Demonstrate observation, analytical, and diagrammatic skills through projects, charts, and models. • Work collaboratively on experiments, simulations, and research-based projects.

			vaccines, antibiotics, insulin, and gene therapy. • Understand industrial applications: fermentation, biofuels, and enzyme production. • Discuss environmental applications: bioremediation, waste management. • Understand ethical, legal, and social issues associated with biotechnology.					• Apply biotechnological knowledge to real-life problems and innovations.
Oct	22	**Chapter 6 : Evolution** (Origin of life; Biological evolution and evidences for biological evolution (Paleontological, comparative anatomy, embryology and molecular evidence); Darwin's contribution, Modern Synthetic theory of Evolution; Mechanism of evolution– Variation (Mutation and Recombination) and Natural Selection with examples, types of natural selection; Gene flow and genetic dirft; Hardy-Weinberg's principle; Adaptive Radiation; Human evolution) **Chapter 7 : Human Health and Disease** (Pathogens; parasites causing human diseases	A. Evolution • Understand the concept and significance of evolution in biology. • Describe evidence of evolution: fossil records, comparative anatomy, embryology, molecular evidence. • Explain Lamarck's and Darwin's theories of evolution and natural selection. • Understand adaptation, speciation, and evolutionary processes. • Explain Hardy-Weinberg principle and its application to population genetics. • Relate evolution to diversity of life and survival of species.	• **Evolutionary Trees:** Illustrate phylogenetic trees showing evolutionary relationships. • **Fossil and Adaptation Posters:** Display examples of fossil evidence and adaptive traits. • **Infectious Disease Charts:** Illustrate causative agents, symptoms, and preventive measures. • **Immune System Diagrams:** Flowcharts showing innate	• Use animations and videos to demonstrate evolution, natural selection, and disease mechanisms. • Provide simplified diagrams and flowcharts for evolutionary evidence and immune responses. • Encourage group discussion and peer learning on evolutionary concepts and	Suggested Projects • Study adaptive traits in local plants and animals. • Survey awareness of infectious and lifestyle diseases in community or school. • Prepare charts showing evolutionary trends in vertebrates. • Collect information on vaccination programs and public health measures.	• **Case Study:** How does natural selection help species survive in changing environments? • **Application Question:** How do vaccines prevent infectious diseases? • **Data Interpretation:** Analyze population genetics data using Hardy-Weinberg principle. • **Diagram-Based Reasoning:** Identify structures of pathogens or evolutionary traits. • **Higher Order Thinking:** How can understanding	• Explain the process and evidence of evolution. • Describe natural selection, adaptation, and speciation clearly. • Identify causes, prevention, and control measures of human diseases. • Understand role of immunity and vaccination in health. • Apply knowledge of evolution and disease prevention in real-life contexts.

		(Malaria, Filariasis, Ascariasis, Typhoid, Pneumonia, common cold, amoebiasis, ring worm); Basic concepts of immunology–vaccines; Cancer, HIV and AIDs; Adolescence, drug and alcohol abuse.)	B. Human Health and Disease • Define health and disease, and factors affecting human health. • Classify diseases: infectious (bacterial, viral, fungal, protozoan) and non-infectious. • Understand transmission, prevention, and control of common human diseases. • Describe immune system function and role of vaccines. • Understand lifestyle disorders and preventive measures. • Explain role of public health and hygiene in disease prevention.	and adaptive immunity. • **Lifestyle Disease Infographics:** Highlight preventive measures for diabetes, hypertension, and obesity.	disease prevention. • Use tactile models for differently-abled learners. • Offer alternative assessments (oral explanation, model-making, chart presentation, digital posters).	Practical Activities • Observation of fossils or preserved specimens. • Prepare charts showing life cycle of pathogens (malaria, bacterial infections, etc.). • Simulate immune response using models. • Analyze data on incidence of diseases or lifestyle disorders.	evolution help in medicine, agriculture, and conservation?	• Demonstrate observation, analytical, and diagrammatic skills through charts, models, and projects. • Work collaboratively on surveys, experiments, and research-based projects.
Nov	16	**Revision of Unit VII & IX**						
Dec	24	**Revision +Pre Board Exam I**						
Jan	14	**Revision +Pre Board Exam II**						
Feb	22							

SUBJECT: Informatics Practices (065)
Textbook: 1. **Informatics Practices with Python – XII by Preeti Arora**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April + May	23 + 07	**Unit 1: Database Query using SQL:-** • Revision of database concepts and SQL commands covered in class XI • Math functions: POW(), ROUND (), MOD (). • Text functions: UCASE(), LCASE (), SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM () • Date Functions: NOW(), DATE (), MONTH (), DAY(), MONTHNAME(), YEAR(),DAYNAME() • Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT () • Querying and manipulating data using Group by, Having, Order by. • Working with two tables using equi-join	**1. Acquisition of Knowledge:** To enable the students to know about MySQL queries. **2.Development of Understanding:** To enable the students to understand the writing style of queries and fetching data from the database. **3. Development of Skill:** To enable the students to develop the skill of writing and filtering queries using various functions.	-	Use different functions to write and filter data from the database.	Create database along with 3 tables. Data to be added and filtered using various functions.	Clarity of Concept through thought provoking quizzing, critical thinking, logical reasoning, comprehending, high order thinking, assertion and reasoning, case-based, oral drilling etc.	The students will be able create database and create tables in the database. Students will be able to use various functions of the SQL.
June + July	16 + 26	**Unit 1: Data Handling using Pandas -I** • Introduction to Python libraries – Pandas and Matplotlib. • Data structures in Pandas - Series and Data Frames. • Series: Creation of Series from – ndarray, dictionary,	**1. Acquisition of Knowledge:** To enable the students to know about Python libraries and data structure **2.Development of Understanding:** To enable the students to understand the Basic	WAPP to create a graph of your report card which consist marks of 5 subjects.	-	5 programs based on Python libraries and Data structure.	Clarity of Concept through thought provoking quizzing, critical thinking, logical reasoning, comprehending, high order thinking,	The students will be able to write the python programming using libraries.

		scalar value; mathematical operations; Head and Tail functions; Selection, Indexing and Slicing. • Data Frames: creation - from dictionary of Series, list of dictionaries, Text/CSV files; display; iteration; Operations on rows and columns: add, select, delete, rename; Head and Tail functions; Indexing using Labels, Boolean Indexing; •Importing/Exporting Data between CSV files and Data Frames. **Data Visualization :-** • Purpose of plotting; drawing and saving following types of plots using Matplotlib – line plot, bar graph, histogram • Customizing plots: adding label, title, and legend in plots.	Concept of Data structure. **3. Development of Skill:** To enable the students to develop the skill of Computational thinking and decision-making concept of data handling.					
Aug	24	**Unit 3: Introduction to Computer Networks:-** • Introduction to networks, Types of network: PAN, LAN, MAN, WAN. • Network Devices: modem, hub, switch, repeater, router, gateway • Network Topologies: Star, Bus, Tree, Mesh. • Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP. •Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and	**1. Acquisition of Knowledge**: To enable the students to know about the computer network and how does it work. **2. Development of Understanding:** Students will understand the working of computer network and how does data get transferred. **3. Development of Skill:** To enable the students to	A computer network model will be prepared by the students which shows the working of networking	Art Integrated Project based on Basic Computer topology.	-	Clarity of Concept through quizzing, critical thinking, logical reasoning etc.	The students will be able to know and learn about Computer network and networking devices.

		hosting of a website. •Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.	develop the skill of creating a network.					
Sep	23	**Revision**						
Oct	22	**Unit 4: Societal Impacts: -** • Digital footprint, net and communication etiquettes • Data protection, intellectual property rights (IPR) • Plagiarism, licensing and copyright, free and open source software (FOSS) • Cybercrime and cyber laws, hacking, phishing, cyber bullying, overview of Indian IT Act. • E -waste: hazards and management. • Awareness about health concerns related to the usage of technology	1. Acquisition of Knowledge: To enable the students to know about the social networking impacts in our day -to -day life. 2. Development of Understanding: Understanding to be develop to secure data and recycle the products which can be reuse. 3. Development of Skill: To enable the students to develop the skill of reuse the E - waste and secure data from the theft.	Make a poster on cyber security to spread the awareness.	Real life examples and videos to be displayed for awareness.	-	Clarity of Concept through quizzing, critical thinking, comprehending, case - based, oral drilling etc.	The students will be able to analyze and recognize digital theft and how to overcome from it.
Nov	16	**Revision**						
Dec	24	**Pre Board 1 and Revision**						
Jan	14	**Pre Board2 and Revision**						

SUBJECT: ECONOMICS

Text Book: 1, N,C,E,R,T

Reference book: - 1, Macroeconomics by T, R, Jain (by V, K, Global Publication) 2, Economic Development and Indian Economy by T, R, Jain (by V, K, Global Publication) 3 , Macroeconomics by Sandeep Garg (Dhanpat Rai Publication)

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching/Subject integration	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	**23**	**Unit 1: National Income and Related Aggregates** **National Income and Related Aggregates : What is Macroeconomics? Basic concepts in macroeconomics: consumption goods, capital goods, final goods, intermediate goods; stocks and flows; gross investment and depreciation, Circular flow of income (two sector model); and Welfare Methods of calculating National Income – Value Added or Product method, Expenditure method, Income method, Aggregates related**	**1.Acquisition of knowledge:** To enable students to: understand the concept of national income and related aggregates such as Gross Domestic Product (GDP), Gross National Product (GNP), and Net National Product (NNP), **2.Development of understanding** to explain the various methods used to calculate national income and related aggregates, to discuss the importance of national income and related aggregates in measuring a country's economic performance, **3.Development of skills** to analyse the limitations of national income and related aggregates as a	Documentary filmmaking: National income and related aggregates can be explored through documentary filmmaking; Students can create short documentaries that explore the impact of globalization on different communities or examine the role of government policies in shaping the economy	Integration with Accountancy.	Collect data on the economic performance of your chosen country, You can use data from government sources, international organizations such as the World Bank or the International Monetary Fund, or other reliable sources, Make sure you use data from a recent year or years to ensure the relevance of your analysis,	Q & A LOA	**Students will be able to understand** the concept of national income and related aggregates and explain their differences, **Students will be able to calculate** national income using different methods and understand the implications of each method, Students will be able to explain the significance of national income and related aggregates in measuring economic growth and development, **Students will be able to critically evaluate** the limitations of national income and related aggregates as a measure of economic well-being and suggest alternative measures, **Students will be able to analyse** the relationship between national income and related aggregates and other economic indicators and use this understanding to interpret economic data and make informed decisions,

		to National Income: Gross National Product (GNP), Net National Product (NNP), **Gross Domestic Product (GDP) and Net Domestic Product (NDP) - at market price, at factor cost** **Real and Nominal GDP, GDP**	measure of economic well-being, to describe the relationship between national income and related aggregates and other economic indicators such as inflation, employment, and poverty,					
May	**07**	**Unit 2: Money and Banking** **Central bank and its functions (example of the Reserve Bank of India):** **Bank of issue, Govt,** **Bank, Banker's Bank,** **Control of Credit through Bank Rate, CRR, SLR, Repo Rate and Reverse Repo Rate,** **Open Market Operations,** **Margin requirement**	**1.Acquisition of knowledge:** To enable students to : define money and banking and explain their importance in the economy, to analyse the different functions of money and the various types of money, to explain the role of banks in the economy, including their functions, services, and regulations, **2.Development of understanding:** to understand the monetary policy tools and objectives of the central bank in controlling the money supply and inflation,	Create art projects that explore the history of money: Students can create artwork that explores the history of money, such as creating paintings or sculptures that depict the evolution of coins and currency,	Integration with Business studies	The role of banking in economic development: Banks play a critical role in providing access to credit and capital for businesses and individuals, which can spur economic growth and development, You could examine how banking systems differ across countries and regions, and how these differences impact economic growth and development,	Q & A LOA	**Students will be able to define** money and banking and explain their importance in the economy, Students will be able to analyse the different functions of money and the various types of money, Explain the role of banks in the economy, including their functions, services, and regulations, **Students will be able to understand** the monetary policy tools and objectives of the central bank in controlling the money supply and inflation, Analyse the impact of changes in interest rates and money supply on the economy, including inflation, output, and employment,

			3.Development of skills to analyse the impact of changes in interest rates and money supply on the economy, including inflation, output, and employment,					
June	**16**	**UNIT: 3 Determination of Income and Employment** **Aggregate demand and its components, Propensity to consume and propensity to save (average and marginal), Short-run equilibrium output; investment multiplier and its mechanism , Meaning of full employment and involuntary unemployment, Problems of excess demand and deficient demand; measures to correct them - changes in government spending, taxes and money supply**	**1.Acquisition of knowledge:** To enable students to: to define aggregate demand and aggregate supply and explain their components , **2.Development of understanding:** to analyse the determinants of aggregate demand and aggregate supply in the economy, **3.Development of skills** to understand the concept of equilibrium income and output and how it is determined in the economy, to analyse the impact of changes in aggregate demand and supply on the equilibrium level of income and output, to understand the concept of multiplier and its importance in the economy,	Visual Storytelling: Students can create visual stories using different art forms such as drawing, painting, or photography, that demonstrate the various ways income and employment affect people's lives, This will not only help them understand these concepts but also develop their storytelling skills,	Integration with History with the concept of industrializati on ,supply and demand pattern in ancient time .	Define the circular flow of income and explain its components (households, firms, government, and the rest of the world) Explain how income and employment are generated in this model	Q & A LOA	**Students will be able to describe** the components of aggregate demand and supply and their importance in the economy, **Students will be able to identify** the factors that determine aggregate demand and supply, **Students will be able to understand** the concept of equilibrium income and output and how it is determined in the economy, **Students will be able to analyse** the impact of changes in aggregate demand and supply on the equilibrium level of income and output and understand the concept of a shift in the demand and supply curve, **Students will be able to explain** the concept of multiplier and how it magnifies the impact of changes in aggregate demand and supply on the economy, they will also be able to calculate the value of the multiplier,

July	**26**	**Part B: Indian Economic Development Unit 6: Development Experience (1947-90) and Economic Reforms since 1991:** **A brief introduction of the state of Indian economy on the eve of independence, Indian economic system and common goals of Five Year Plans, Main features, problems and policies of agriculture (institutional aspects and new agricultural strategy), Industry (IPR 1956; SSI – role & importance) and foreign trade, Economic Reforms since 1991:** **Features and appraisals of liberalisation, globalisation and privatisation (LPG policy); Concepts of demonetization and GST**	**1.Acquisition of knowledge:** To enable students: to understand the economic policies and development experience of India from 1947 to 1990 **2.Development of understanding:** to analyse the challenges faced by the Indian economy during this period and the strategies adopted to address them, to evaluate the impact of economic policies on various sectors of the Indian economy, **3.Development of skills** to comprehend the nature and scope of economic reforms initiated since 1991,	Art and globalization: The period of economic reforms since 1991 saw India opening up to the world and becoming more integrated into the global economy, This can be a topic of study for art education as well, by exploring how Indian art and artists have responded to this process of globalization, For example, you could analyze the work of contemporary Indian artists who are working in a global context, or those who are exploring themes of cultural identity and globalization in their work,	Integration with History with the concept of industrializati on ,supply and demand pattern in ancient time	Describe the economic policies implemented by India during this period, including the Five-Year Plans and the Green Revolution Discuss the successes and failures of these policies, and their impact on India's economy Analyse the role of the public sector and the private sector in India's economic development during this period	Q & A LOA	**Students will be able to understand** the evolution of economic policies in India from 1947 to 1990, **Students will be able to analyse** the challenges faced by the Indian economy during this period and the strategies adopted to address them, **Students will be able to evaluate** the impact of economic policies on various sectors of the Indian economy, such as agriculture, industry, and services, **Students will be able to comprehend** the nature and scope of economic reforms initiated since 1991 and the reasons for their introduction, Students will be able to understand the objectives, strategies, and outcomes of economic reforms since 1991, such as liberalization, privatization, and globalization, **Students will be able to apply** their knowledge of economic policies and reforms to analyse current economic issues in India,
Aug	**24**	**Unit 7: Current challenges facing Indian Economy**	**1.Acquisition of knowledge:** To enable students : to identify the major	Infographic design: Ask students to create an infographic	Integration with Geography the concept of	Unemployment: Unemployment is a major challenge facing the Indian	Q & A LOA	**Students will be able to identify** the major challenges faced by the Indian economy in the present context, such as

		Human Capital Formation: How people become resource; Role of human capital in economic development; Growth of Education Sector in India Rural development: Key issues - credit and marketing - role of cooperatives; agricultural diversification; alternative farming - organic farming Employment: Growth and changes in work force participation rate in formal and informal sectors; problems and policies Sustainable Economic Development: Meaning, Effects of Economic Development on Resources and Environment, including global warming	challenges faced by the Indian economy in the present context, to analyse the causes and consequences of these challenges, **2.Development of understanding:** to understand the policy options available to address these challenges, toevaluate the effectiveness of different policy options in addressing these challenges, **3.Development of skills** to apply economic concepts and theories to understand the challenges facing the Indian economy,	that visually represents the current challenges facing the Indian economy, This can include graphs, charts, and other visual representations of data, The use of color, images, and other design elements can help students convey complex information in an engaging and accessible way,	demographic dividend nd other composition and other indicators	economy, With a growing population and limited job opportunities, the unemployment rate in India is very high, The COVID-19 pandemic has worsened this situation, with many people losing their jobs and businesses shutting down,		high inflation, slow growth, unemployment, and inequality, **Students will be able to analyse** the causes and consequences of these challenges, such as structural bottlenecks, weak infrastructure, and inadequate social safety nets, **Students will be able to understand** the policy options available to address these challenges, such as fiscal and monetary policies, trade policies, and social welfare policies, **Students will be able to evaluate** the effectiveness of different policy options in addressing these challenges, taking into account their costs, benefits, and trade-offs, Students will be able to apply economic concepts and theories, such as demand and supply, market failures, and externalities, to understand the challenges facing the Indian economy, **Students will be able to develop** critical thinking and problem-solving skills by analysing and proposing solutions to the challenges facing the Indian economy,
Sept	**23**	**Unit 4: Government Budget and the Economy** **Government**	**1.Acquisition of knowledge:** Toenable students : to understanding the purpose and importance of	Infographics: Creating infographics that visually represent data related to government	Work sheet for Group A, B and C	PPT on budget of our country for FY-2023-24	Q & A LOA	**Students will be able to understand** the role of government in the economy: Students will learn about the various ways in which government intervention can

		budget - meaning, objectives and components, Classification of receipts - revenue receipts and capital receipts; Classification of expenditure – revenue expenditure and capital expenditure, Balanced, Surplus and Deficit Budget – **measures of government deficit,**	government budgeting in a market economy **2.Development of understanding:** to analysing the impact of fiscal policy on economic growth, inflation, and employment to examine the different types of government revenues and expenditures, including taxes, transfers, and public goods and services **3.Development of skills** to evaluate the effectiveness of different budgetary tools and techniques, such as deficit spending and balanced budget rules to identifythe key stakeholders involved in the budgetary process, including elected officials, interest groups, and citizens Applying economic models and theories to analyze budgetary decisions and their effects on the economy and society	budgets and the economy is a great way to incorporate art into this topic, Students can create posters or digital graphics that illustrate the impact of government spending on the economy,				impact the economy, including through taxation, government spending, and regulation, **Students will be able to examine** the different types of government revenues and expenditures, including taxes, transfers, and public goods and services. **Students will be able to analyse** government budgets: **Students will be able to learn** how to read and analyze government budgets, including understanding the various categories of spending and revenue sources, Evaluating fiscal policy: Students will learn how changes in government spending and taxation can impact the economy, and how to evaluate the effectiveness of various fiscal policies, **Students will be able to understand** macroeconomic concepts: Students will develop a deeper understanding of macroeconomic concepts such as GDP, inflation, and unemployment, and how government budget decisions can impact these indicators, **Students will be able to develop** critical thinking skills: Studying government budget and the economy requires students to think critically about complex economic issues and to

			to critically evaluating government budgetary policies and proposals, and developing informed opinions on their potential benefits and drawbacks toUnderstand the role of budget deficits and debt in the economy, and assessing their impact on future generations, to understand the principles of public financial management and the budgeting process, including the role of the legislature and the executive branch, to analyse the trade-offs between various budgetary priorities and constraints, such as equity, efficiency, and sustainability,					evaluate the potential consequences of policy decisions, Communicating economic ideas effectively: **Students will develop the ability to communicate** complex economic ideas in a clear and concise manner, both in writing and in oral presentations, Overall, studying government budget and the economy provides students with a foundational understanding of how government policies can impact the economy and the well-being of individuals and society as a whole,
Oct	**22**	**UNIT 5 Balance of Payments Balance of payments account - meaning and components; Balance of payments – Surplus and Deficit Foreign exchange rate - meaning of fixed and flexible rates and managed**	**1.Acquisition of knowledge:** To enable students : to define balance of payments and its components to explain the importance of balance of payments in international trade **2.Development of**	Infographics: Creating infographics that visually represent data related to Balance of payments	Work sheet for Group A, B and C	Make a project on balance of payments between India and rest of the world	Q & A LOA	**Students will be able to understand** the meaning and significance of balance of payments and its components, including the current account, capital account, and financial account, Recognize the importance of balance of payments in determining a country's overall economic health and its ability to trade with other countries,

		floating, Determination of exchange rate in a free market, Merits and demerits of flexible and fixed exchange rate, Managed Floating exchange rate system **Unit 8: Development Experience of India:** **A comparison with neighbors India and Pakistan India and China Issues:**	**understanding:** to analyse the causes and consequences of imbalances in balance of payments to evaluate policies to correct balance of payments imbalances. **3.Development of skills** to understand the relationship between exchange rates and balance of payments Toenable students: to understand the historical, political, and economic context of India, Pakistan, and China's development experiences, to examine the similarities and differences in the economic policies pursued by India, Pakistan, and China, including the role of state intervention, economic liberalization, and globalization, to analyse the social	Infographics: Creating infographics that visually represent data related to India China and Pakistan economic	Work sheet for Group A, B and C	Examining the social development of India, Pakistan, and China and comparing the quality of life	Q & A LOA	**Students will be able to analyse** the causes and consequences of imbalances in balance of payments, including trade deficits, current account deficits, and capital outflows, **Students will be able to evaluate** policies that can be used to correct imbalances in balance of payments, such as exchange rate adjustments, trade policies, and capital controls, Students will **Students will be able to eexamine** the role of international trade in shaping the economic development of India, Pakistan, and China, Developing critical thinking skills by evaluating different perspectives on the economic development of these countries, Identifying the implications of the economic development of India, Pakistan, and China for the global economy, Enhancing cross-cultural awareness by comparing and contrasting the economic development experiences of different countries, Developing research and analytical skills by conducting independent research on the economic development of India, Pakistan, and China,

		economic growth, population, sectoral development and other Human Development Indicators	changes that have occurred in India, Pakistan, and China, including changes in gender roles, caste relations, and ethnic diversity, to assess the political developments in India, Pakistan, and China, including the role of democracy, federalism, and authoritarianism, to understand the key issues and challenges in India and China's relationship, including trade, territorial disputes, and geopolitical tensions,	conditions and development		indicators such as literacy rates, healthcare access, and education levels, This could involve conducting surveys, analyzing existing data sets, and interviewing experts in the field,		
Nov	**16**	**REVISION FOR PRE-BOARD EXAM**						
Dec	**24**	**REVISION FOR PRE-BOARD EXAM**						

SUBJECT : ACCOUNTANCY

Text Book : 1. N.C.E.R.T

2. DOUBLE ENTRY BOOKKEEPING

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	**23**	**Accounting for partnership firms Fundamentals** • Preparation of profit and loss appropriation account • Partners' capital accounts under fixed and fluctuating method • Adjustment regarding interest on partner's loan • Interest on partners drawings • Interest on partners' capital • Partners salaries and commission • Past Adjustment • Guarantee of profit	**Acquisition of knowledge**: To enable them to know- Meaning of partnership & Features • Rights of partners • Partnership deed: Concept and importance **Development of understanding**: To enable students to understand Provision affecting accounting treatment in the absence of partnership deed. **Development of skills:** To enable the students to develop the skills of: • Preparation of profit and loss appropriation account • Partners' capital accounts under fixed and fluctuating method	**Integrated with** Painting and Sketch Poster Making, Role plays on rights and liabilities of partners.	Some relevant topics in the chapter to be integrate with the other subjects. For example- Meaning, features, partnership deed provision applicable in the absence of deed of partnership to be integrated with subject Business studies.	Project on the contents of partnership deed of Go pro and Red bull.	*Conceptual learning *Thought provoking *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	The students will be able to know and learn various aspects of partnership. The students will be able to know and learn various rights and liabilities of partners. The students will be able to know and learn differentiate partnership, sole proprietorship & LLP.
May	**07**	**Goodwill: Nature and valuation Meaning of Goodwill** • Factors affecting for valuing goodwill. • Need for valuing Goodwill. • Classification of goodwill • Methods for valuing goodwill: • Average profit method: Simple and weighted. • Super profit method	**Acquisition of knowledge:** • To enable them to know- • Meaning of Goodwill & Features • Factors affecting for valuing goodwill. **Development of understanding:** To enable students to understand Need for valuing Goodwill. Classification of goodwill **Development of skills:** To enable the students to develop the skills of:	**Integrated with** Painting and Sketch Poster Making, Role plays on rights and liabilities of partners.	Work sheet based on CBSE exam	Project on methods used on valuation of goodwill.	*Conceptual learning *Thought provoking *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling	**The students will be able to know and learn**: the meaning, nature & factors affecting goodwill. Develop the understanding and skill of valuation of goodwill using different methods.

		• Capitalization method: Capitalization of average profit and capitalization of super profit.	• Methods for valuing goodwill: • Average profit method: Simple and weighted. • Super profit method • Capitalization method: Capitalization of average profit and capitalization of super profit.				pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	
June	**16**	**Change in profit sharing ratio among the existing partners.** • Concept of reconstitution of partnership • Sacrificing ratio and gaining ratio • Accounting treatment of goodwill, Reserves, Accumulated profit, • Revaluation of assets and liabilities • Preparation of balance sheet of the reconstituted firm **Admission of a partner** • Calculation of new and sacrificing ratio • Accounting treatment of Goodwill in case of admission of a partner as per AS – 26 • Preparation of Revaluation account, Partner's capital account and Balance sheet • Adjustment of Capital: When total capital is known; when total capital in unknown and hidden goodwill	**Acquisition of knowledge:** To enable them to know- Concept of reconstitution of partnership **Development of skills:** • To enable the students to develop the skills of calculating & treatment of: • Sacrificing ratio and gaining ratio • Accounting treatment of goodwill, Reserves, Accumulated profit, • Revaluation of assets and liabilities • Preparation of balance sheet of the reconstituted firm. **Acquisition of knowledge:** To enable them to know- Concept of Admission of partner Effects of admission of partner **Development of skills:** To enable the students to develop the skills of calculating & treatment of: • Calculation of new and sacrificing ratio • Accounting treatment of Goodwill in case of admission of a partner as per AS - 26 • Preparation of	**Integrated with** Painting and Sketch Poster Making, Role plays on treatment of goodwill, adjustment of capital, treatment of reserve and accumulated profit & loss etc.	Some relevant topics in the chapter to be integrate with the other subjects. For example- Calculation of ratio to be integrated with subject Mathematics. & Work sheet based on CBSE exam	Project on effect of change in profit sharing ratio of an imaginary partnership firm. Project on effect of admission of a partner in case of imaginary partnership firm.	*Conceptual learning *Thought provoking *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	**The students will be able to know and learn:** the accounting treatment of goodwill, revaluation assets and re-assessment of liabilities and treatment of reserve by preparing revaluation account and balance sheet. **The students will be able to know and learn:** the effect of change in profit sharing ratio on admission of a new partner. **The students will be able to know and learn:** treatment of goodwill as per AS-26, preparation of revaluation account, partners' capital account and balance sheet.

			Revaluation account, Partner's capital account and Balance sheet • Adjustment of Capital: When total capital is known; when total capital in unknown and hidden goodwill					
July	**26**	**Retirement of a partner** • Calculation of new and gaining ratio • Accounting treatment of goodwill in case of retirement of a partner. • Preparation of Revaluation account, Partner's capital account and Balance sheet • Adjustment of Capital: When total capital is of the new firm is known. • when total capital of the remaining partners is to be in new profit-sharing ratio. • When total capital is of the new firm is equal to total capital before retirement. • When retiring partner is to be paid through amount brought by the remaining partners in a manner to make their capital proportionate to • their new profit-sharing ratio and also leave a desired cash balance.	**Acquisition of knowledge:** To enable them to know- Concept • Provisions of partnership Act regarding retirement of a partner. • Accounting treatment of goodwill in case of retirement of a partner **Development of skills:** To enable the students to develop the skills of calculating & treatment of: • Calculation of share of profit of deceased partner. • Calculation based on time & turnover. • Executor's account. Adjustment of Capital: • When total capital is of the new firm is known. • when total capital of the remaining partners is to be in new profit-sharing ratio. • When total capital is of the new firm is equal to total capital before retirement. • When retiring partner is to be paid through amount brought by the remaining partners in a manner to make their capital proportionate to their new profit- sharing ratio and also leave a desired cash balance.	Integrated with Painting and Sketch Poster Making of Dissolution of partnership and partnership form.	**Some relevant topics in the chapter to be integrate with the other subjects.** For example- Calculation of ratio to be integrated with subject Mathematics. & Work sheet based on CBSE exam	Project on accounting treatment of different items on retirement & death of a partner in case of imaginary partnership firm. Project on the provisions of act regarding the dissolution of partnership firm.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	**The students will be able to know and learn**: the effect of retirement/death of a partner on change in profit sharing ratio. **The students will be able to know and learn**: the skill of calculation of deceased partner's share till the date of his death. **The students will be able to know and learn**: preparation of deceased partners executor's account. **The students will be able to know and learn**: the preparation of the capital account of remaining partner and the balance sheet of the firm after retirement. **The students will be able to know and learn:** The situations under which a partnership firm can be dissolved. **The students will be able to know and learn:**

		Death of a partner • Computation of amount due to a deceased partner • Calculation of profit based on time and sales • Preparation of deceased partner's capital account. • Preparation of executor's account **Dissolution of a partnership Firm** • Accounting entries for dissolution of firm • Preparation of dissolution or realization account, partners' capital account and bank account.	**Acquisition of knowledge:** To enable them to know- Concept • Distinction between dissolution of firm and dissolution of partnership • Modes of dissolution of firm • Settlement of accounts (Section 48) • Payment of firm's debt and private debt (section 49) • Preparation of dissolution or • realization account. • partners' capital account • Bank account.					Hoe to preparation of realization account and other related accounts.
Aug	**24**	**PART- B Company Accounts** • Accounting for share capital • Accounting treatment of issue of share at par and premium • Under subscription of shares • Over subscription of shares • Issue of shares for consideration other than cash • Forfeiture and re-issue of shares **Issue of Debentures** • Issue of debentures for cash at par, premium and discount from the point of view of	**Meaning and characteristics of a company** Kind of companies (i) One person company (ii) Private company (iii) Public company Meaning of share capital Kinds of shares Difference between equity and preference shares **Development of skills:** To enable the students to develop the skills of calculating & treatment of: Accounting treatment of issue of share at par and premium Under subscription of shares **Acquisition of knowledge:** To enable them to know- • Meaning of debentures	Integrated with Painting and Sketch Poster Making of One person company, Private Company, Public Company, Equity shares, Preference shares etc. **Integrated with** Painting and Sketch Poster of types of debentures issued by the company	**Some relevant topics in the chapter to be integrate with the other subjects.** For example- One person company, Private Company, Public Company, Equity shares, Preference shares Over-subscription, Under-subscription.to be integrated with subject Business Studies. & Work sheet based on CBSE exam **Some relevant topics in the chapter to be integrate with the other subjects.** For example- One person company, Private	Project on a Public Ltd. Regarding accounting entries of issue of shares and their provisions on Co. Act 2013. Project on any Indian Public Ltd. Co. about the types of debentures issued in the financial market and presentation of debenture in the balance sheet of the company as per schedule III part I of the company act 2013.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	The students will be able to know and learn: the meaning of private placement of shares. The students will be able to know and learn: the accounting treatment of share capital transactions regarding issue of shares. The students will be able to know and learn: the understanding of accounting treatment of forfeiture and re- issue of forfeited shares. **The students will be able to know and learn**: the understanding and skill of writing off discount/loss on issue of debenture.

		redemption • Issue of debentures for consideration other than cash • Issue of debentures as collateral security • Accounting treatment of interest on debentures • Writing off discount or loss on issue of debentures	• Features • Difference between shares and debenture • Types of debentures **Development of skills:** To enable the students to develop the skills of calculating & treatment of: • Issue of debentures for cash at par, premium and discount from the point of view of redemption • Issue of debentures for consideration other than cash • Issue of debentures as collateral security • Accounting treatment of interest on debentures Writing off discount or loss on issue of debentures		Company, Public Company, types of debentures, shares Over-subscription, Under-subscription. to be integrated with subject Business Studies & Economics. & Work sheet based on CBSE exam			**The students will be able to know and learn**: the understanding the concept of collateral security and its presentation in balance sheet. **The students will be able to know and learn**: the skill of calculating interest on debenture and its accounting treatment.
Sept	**23**	**Revision for Term - 1**						
Oct	**22**	**PART - C** **Analysis of financial statements** • Format of balance sheet. • Heads and contents of balance sheet • Preparation of comparative and common size income statement. • Preparation of comparative and common size balance sheet **Accounting ratios** • Liquidity Ratios: Current ratio; Liquid ratio • Solvency ratios: Debt - equity ratio; Total	**1.Acquisition of knowledge:** To enable them to know- • Nature of financial statements • Contents of annual report • Objectives of financial statements • Limitations of financial statements • Format of balance sheet • Heads and contents of balance sheet • Comparative and common size income statement and balance sheet • Meaning and purpose of comparative income statement • Meaning and purpose of comparative balance sheet • Meaning and purpose of	Integrated with Painting and Sketch Poster of types ratio calculate by the company, formula used to calculate the ratio etc Poster of types ratio calculate by the company, formula used to calculate the ratio etc	Some relevant topics in the chapter to be integrate with the other subjects. For example- Ratio, percentage, times. to be integrated with subject Mathematics. & Work sheet based on CBSE exam integrate with the other subjects. For example- Ratio, percentage, times. to be integrated with subject Mathematics. & Work sheet based on CBSE exam	Project on the comparative and common size income statement and balance sheet, accounting ratio calculated with the help of financial statement of any public ltd. Co. statement and balance sheet, accounting ratio calculated with the help of financial statement of any public ltd. Co.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	**The students will be able to know and learn:** the understanding of major headings and sub-heading of financial statement as per schedule III part I of the company act 2013. **The students will be able to know and learn:** the meaning of different tools of financial statement analysis. **The students will be able to know and learn:** the understanding of computation of current and quick ratio.

		assets to debt ratio; Proprietary ratio; Interest coverage ratio • Activity ratios: Inventory turnover ratio; Trade receivable ratio; Trade payable ratio; working capital turnover ratio • Profitability ratios: Gross profit ratio; Net profit ratio; Operating ratio; operating profit ratio; return on investment.	common size income statement • Meaning and purpose of common size balance sheet • Meaning • Objectives • Limitations				*Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	**The students will be able to know and learn:** the skill of computation of different ratio's with the help of financial statement. of major headings and sub-heading of financial statement as per schedule III part I of the company act 2013.
Nov	**16**	**Cash Flow Statement** Computation of cash flow from different activates: Cash flow from operating activities Cash flow from investing activities Cash flow from financing activities Preparation of cash flow statement.	**1.Acquisition of knowledge:** To enable them to know- Meaning Objectives & Importance or uses of cash flow Limitations of cash flow **Development of skills:** To enable the students to develop the skills of calculating & treatment of: Computation of cash flow from different activates: Cash flow from operating activities Cash flow from investing activities Cash flow from financing activities Preparation of cash flow statement.		Work sheet based on CBSE exam	Comprehensive and specific projects on Cash flow of any public Ltd.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc	**The students will be able to know and learn**: the understanding of preparation of cash flow statement using indirect method as per AS-3 with given adjustments. **The students will be able to know and learn**: Identify the operating, investing and financing activities.
Dec	**24**	**Revision (Sample Paper)**		**Pre Board**				
Jan	**14**	Revision	(Sample Paper)					
Feb	**22**							

SUBJECT : BUSINESS STUDIES

Text Book : 1. N.C.E.R.T
2. V.K Publication

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	**23**	**Nature and significance of management** • Modern Concept of Management • meaning of management • Characteristics • Objectives of management • Importance of management • Nature of management • Levels of management • Functions of management • Coordination **Principles of Management** • Meaning of principles of management • Features • Importance of Management principles • Fayol's principles of management • Scientific management developed by F.W.Taylor • Comparison between Fayol and Taylor	**1.Acquisition of knowledge:** • To enable them to know- • Modern Concept of Management meaning of management Characteristics Objectives of management Importance of management • Nature of management Meaning of principles of management Features • Importance of Management principles **1. Development of understanding**: • To enable students to understand • Levels of management Functions of management Coordination • Fayol's principles of management • Scientific management developed by F.W. Taylor **3. Development of skills** • To enable the students to develop the skills • Comparison between Fayol and Taylor	**Integrated with** Painting and Sketch Poster of principles of management, scientific principle of management, levels of management and the people included in it etc.	Some relevant topics in the chapter to be integrate with the other subjects. Levels of management and their functions is to be integrated with subject Accountancy. Work sheet based on CBSE exam	Project on evaluation on management principle Project on work of F.W. Taylor	*Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehen ding *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	**The students will be able to know and learn:** the concept of management. **The students will be able to know and learn**: the meaning of Effectiveness & Efficiency. **The students will be able to know and learn:** the importance of management. **The students will be able to know and learn**: the nature of management as a science, art and profession. **The students will be able to know and learn**: the concept of principles of management. **The students will be able to know and learn**: the contribution of Fayol & Taylor.
		Business Environment • Meaning of Business Environment	**1.Acquisition of knowledge:** To enable them to know- Meaning of Business	**Integrated with** Painting and Sketch Poster of Dimension of	Some relevant topics in the chapter to be integrate with the other	Project on different dimensions of business	Conceptual learning *Thought provoking.	**The students will be able to know and learn**: the concept of Business

May	**07**	• Features / Nature of business environment • Importance of business environment • Dimensions of business environment • The features of new economic policy	Environment Features / Nature of business environment **2.Development of understanding:** *To enable students to understand Importance of business environment Dimensions of business environment **3. Development of skills** *To enable the students to develop the skills The features of new economic policy	Business environment (Social, Political, Technological, Legal etc.)	subjects. Demonetization Liberalization, Privatization & globalization. is to be integrated with subject Economics. & Work sheet based on CBSE exam	environment which effect the business organisation.	*Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	Environment & its importance. **The students will be able to know and learn**: the various dimensions of Business Environment. **The students will be able to know and learn**: the managerial response to change in business environment.
June	**16**	**Planning** Meaning of planning Features of planning Importance of planning Limitations of planning Planning process Types of plans **Organizing** Concept of organizing Features of organizing Organizing process Significance/ importance of organizing.	**Acquisition of knowledge:** To enable them to know- Meaning of planning Features of planning Importance of planning Limitations of planning Concept of organizing Features of organizing Significance/ importance of organizing. **Development of understanding:** *To enable students to understand Planning process Plan Types of plans Organizing process Delegation & Decentralization.	**Integrated with** Painting and Sketch Poster of planning process, organizational structure, formal & informal organization, functional & divisional structure Delegation & de-centralization.	**Some relevant topics in the chapter to be integrate with the other subjects.** Framing of planning commission and its implementation is integrated with subject political science & Economics. & Work sheet based on CBSE exam	Project on organizational structure and the list of the directors / managers and their working style.	*Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	**The students will be able to know and learn**: the concept of planning. **The students will be able to know and learn**: the importance & limitations of planning. **The students will be able to know and learn**: an understanding of single and standing plans. **The students will be able to know and learn**: the concept of organizing as a structure and as a process. **The students will be able to know and learn**: the steps in the process of organizing. **The students will be able to know and learn**: the concept of delegation and decentralization.
		Organizing • Organizational structure • Formal and informal organization • Delegation of authorities • Centralization and	**Organizational structure** Formal and informal organization Delegation of authorities Centralization and decentralization Meaning and Introduction Features of Directing	**Integrated with** Painting and Sketch Poster of organizational chart of TISCO & Staffing process of Infosys	**Some relevant topics in the chapter to be integrate with the other subjects.** Internship, vestibule etc. are integrated with Economics. &	Project on organizational chart of TISCO & Staffing process of Infosys	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and	**The students will be able to know and learn**: the importance of decentralization. **The students will be able to know and learn**: the importance of delegation.

July	**26**	decentralization **Staffing** • Concept • Importance of staffing • Staffing and human resource management • Staffing process • Components/ Elements/ • Aspects of staffing • Methods of training: on the job and off the job **Directing** • Meaning and Introduction • Features of Directing • Importance of directing • Elements of directing • Supervision • Motivation • Leadership • Communication	Importance of directing Elements of directing Concept **1.Acquisition of knowledge:** To enable them to know- Concept Importance of staffing Staffing and human resource management **2.Development of understanding:** *To enable students to understand Staffing process Components/ Elements/ Aspects of staffing Methods of training: on the job and off the job		Work sheet based on CBSE exam		Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	**The students will be able to know and learn**: Diff. Between delegation & decentralization. **The students will be able to know and learn**: the concept and importance of staffing. **The students will be able to know and learn**: the specialization duties and activities performed by Human Resource Management. **The students will be able to know and learn**: the meaning and source of recruitment. **The students will be able to know and learn**: on the job and off the job training.
Aug	**24**	**Controlling** Concept Nature of controlling Importance of controlling Relationship between planning and controlling Controlling process **PART- B** **Financial management** • Meaning and characteristics of financial management • Objectives of financial management • Financial decisions • Financial planning • Capital structure. • Fixed and working capital. • Working capital (Short term investment	**1.Acquisition of knowledge:** Nature of controlling Importance of controlling **2. Development of understanding:** *To enable students to understand: - Supervision. Motivation Leadership Communication Barriers of communication. **3.Development of skills** *To enable the students to develop the skills: - Relationship between planning and controlling Controlling process **1.Acquisition of knowledge:** To enable them to know- Meaning and characteristics of	**Integrated with** Painting and Sketch Poster of Maslow's Hierarchy of need, Barriers of communication. **Integrated with** Painting and Sketch Poster of Instruments use to collect money from money market & capital market, functions of SEBI.	**Some relevant topics in the chapter to be integrate with the other subjects.** Leadership integrates with Economics & political science. Motivation is integrated with moral science and live skill. & Work sheet based on CBSE exam **Some relevant topics in the chapter to be integrate with the other subjects.** Money market & stock exchange integrates with	Project on Financial & non- financial incentives provided by TATA Steel Ltd. Project on objective & functions of SEBI.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc. Conceptual learning *Thought provoking.	**The students will be able to know and learn**: the concept and importance of directing. **The students will be able to know and learn**: an understanding of Maslow's Hierarchy of needs. **The students will be able to know and learn**: the concept of leadership and its various styles. **The students will be able to know and learn**: the various barriers of effective communication. **The students will be able to know and learn**: the concept and importance of Controlling. **The students will be able to know and learn**: the relationship between planning and controlling.

		decision) **Financial Market** • Meaning of Financial market • Features of financial markets • Money Market • Tools of money market • Capital market. • Tools of capital market • Stock Exchange	financial management Objectives of financial management Meaning of Financial market. Features of financial market Money Market. Capital market. **2.Development of understanding:** *To enable students to understand: -Financial decisions. Financial planning Capital structure. Fixed and working capital. Working capital **3. Development of skills** *To enable the students to develop the skills: - Tools of money market Tools of capital market Stock Exchange		Economics.		*Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	**The students will be able to know and learn**: The Steps in the process of controlling. **The students will be able to know and learn**: the concept and importance of financial management. **The students will be able to know and learn**: the role of financial management in an organization. **The students will be able to know and learn**: the three financial decisions and factors affecting it. **The students will be able to know and learn**: the concept and importance of financial market. **The students will be able to know and learn**: capital market and money market as types of financial market. **The students will be able to know and learn**: various money market instruments. **The students will be able to know and learn**: primary and secondary market and its diff. **The students will be able to know and learn**: of flotation of new issue in the primary market. **The students will be able to know and learn**: the objectives and functions of SEBI.
Sept	**23**	**Revision , Sample paper, Pre board Exam**						
		Marketing Management Meaning of Marketing management Marketing What can be marketed? Marketing and selling Marketing management	**1.Acquisition of knowledge:** To enable them to know- Meaning of Marketing management Marketing **2. Development of understanding:** *To enable students to	**Integrated with** Painting and Sketch Poster of Sales promotion, slogans for publicity of product in market.	**Some relevant topics in the chapter to be integrate with the other subjects.** Marketing strategy integrates with Economics.	Project on marketing management of a particular product.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking	**The students will be able to know and learn**: the concept features, function s & importance of marketing. **The students will be able to know and learn**: the

Oct	**22**	philosophy Functions of marketing Marketing mix Advertisement Sales promotion & Tools	understand: - What can be marketed? Marketing and selling Marketing management philosophy Functions of marketing				*Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	marketing philosophies. **The students will be able to know and learn**: the concept of marketing mix. **The students will be able to know and learn**: the elements of marketing mix. **The students will be able to know and learn**: the concept branding, labelling and packaging.
Nov	**16**	**Consumer protection** Importance of consumer protection Legal protection to consumers. Consumer rights Consumers responsibilities Redressal agencies under the consumer protection Act 1986 and their jurisdiction Role of consumer organization and NGOs	**1.Acquisition of knowledge:** To enable them to know- Importance of consumer protection Legal protection to consumer **2.Development of understanding:** *To enable students to understand: - Consumer rights Consumers responsibilities Redressal agencies under the consumer protection Act 1986 and their jurisdiction Role of consumer	**Integrated with** Painting and Sketch Poster of Consumer rights Consumers responsibilities Redressal agencies under the consumer	**Some relevant topics in the chapter to be integrate with the other subjects.** Consumer rights Consumers responsibilities integrate with Economics.	Project on Redressal agencies under the Consumer rights Consumers responsibility es.	Conceptual learning *Thought provoking. *Critical thinking *Logical reasoning *Analyzing, *Comprehending *High order thinking *Assertion and Reasoning *Picture based *Source based learning *Story telling pedagogy *Oral drilling *Quizzing *Creating and engaging *Mind mapping etc.	**The students will be able to know and learn**: the concept and importance of consumer protection. **The students will be able to know and learn**: the scope of consumer protection act 1986 **The students will be able to know and learn**: the consumer rights and responsibilities. **The students will be able to know and learn**: the role of consumer organizations and NGOs.
Dec	**24**	Revision	(Sample Paper)					
Jan	**14**	Revision	(Sample Paper)					
Feb	**22**							

SUBJECT: Physical Education

Textbook: 1. **Saraswati Health and Physical Education**

Month	WD	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April	23	• Chapter 1: Management of Sporting Events • Chapter 2: Children and Women in Sports	• Understand the importance of planning and management in sports events. • Identify different committees required for organizing sports competitions. • Understand the importance of sports for children's development. • Recognize challenges faced by women in sports.	• Design a sports event poster or invitation card. • Create a flowchart showing steps in organizing a sports event. • Poster on "Women Empowerment through Sports".	• Assign different planning roles to students (announcer, coordinator, organizer). • Encourage participation from all students in planning activities. • Encourage equal participation of boys and girls in activities.	• Prepare a plan to organize a school sports day including committees and responsibilities. • Survey on sports participation among boys and girls in school.	• Students work in groups to organize a mock sports event. • Group discussion on barriers faced by women in sports.	• Plan and manage small sports events effectively. • Demonstrate teamwork and leadership skills. • Explain the importance of sports for children and women. • Promote equal opportunities in sports participation.
May	07	• Chapter 3: Yoga as Preventive Measure for Lifestyle Diseases • Chapter 4: Physical Education and Sports for CWSN (Children with Special Needs)	• Understand how yoga helps prevent lifestyle diseases. • Learn techniques of selected yoga asanas. • Understand the importance of inclusive sports. • Identify different types of disabilities.	• Draw diagrams of yoga postures and their health benefits. • Poster on "Sports for All".	• Provide alternative poses for students with physical limitations. • Adapt sports activities to ensure participation of all students.	• Demonstrate five yoga asanas with steps and benefits. • Case study on a para-athlete or sportsperson with disability.	• Daily short yoga sessions and breathing exercises. • Simulation activities showing challenges faced by CWSN.	• Perform yoga asanas correctly. • Explain how yoga improves physical and mental health. • Promote inclusive sports environments. • Show empathy and respect toward persons with disabilities.
June	16	• Chapter 5: Sports and Nutrition	• Understand the importance of proper nutrition for athletes. • Identify different nutrients and their functions.	• Prepare a balanced diet chart for athletes.	• Discuss regional and affordable healthy food options.	• Maintain a food diary for one week.	• Plan a nutrition chart for a sportsperson.	• Explain the role of nutrition in sports performance. • Plan healthy dietary habits.

July	26	• Chapter 6: Test and Measurement in Sports • Chapter 7: Physiology and Injuries in Sports	• Learn methods of measuring physical fitness. • Understand body responses to exercise. • Learn prevention and treatment of sports injuries.	• Chart showing different fitness test procedures. • Diagram of muscles or joints involved in sports.	• Modify fitness tests for different ability levels. • Use visual demonstrations for injury prevention techniques.	• Conduct fitness testing and record results. • Demonstration of basic first aid for sports injuries.	• Analyze test scores and suggest improvements. • Role play of injury management during sports events.	• Conduct and interpret fitness tests. • Explain causes and prevention of sports injuries. • Provide basic first aid.
Aug	24	• Chapter 8: Biomechanics and Sports	• Understand the principles of body movement in sports.	• Draw diagrams explaining sports movements (running, jumping).	• Demonstrate movements using simple activities.	• Analyze movements used in different sports.	• Observe and correct body posture during activities.	• Apply biomechanical principles to improve performance.
Sep	23	Revision and Term 1 Examination						
Oct	22	• Chapter 9: Psychology and Sports • Chapter 10: Training in Sports	• Personality and sports performance • Motivation • Stress management • Understand principles and methods of sports training.	• Understand psychological factors affecting athletes. • Chart showing training methods and exercises.	• Mind map showing psychological traits of successful athletes. • Provide exercises suitable for different fitness levels.	• Encourage open discussion about emotions in sports. • Prepare a weekly training program for a sport.	• Survey on motivation in sports among students. • Practice training drills and exercises.	• Apply motivational techniques in sports. • Apply training principles to improve fitness and performance.
Nov	16	Revision						
Dec	24	Revision						
Jan	14	Revision						
Feb	22	Revision						

SUBJECT :GRAPHICS

Text Book : 1. History of Indian art part 2 (NCERT)
PANORMIC INDIAN PAINTING

Month	WD	Chapter/Sub-Topics	Learning Objectives	Key Terms and Concept	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
APRIL		Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print Theory; Chapter – 1 Introduction to Indian Miniature School a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of	Learning about Manuscript Painting done in our Upanishad and Purana and Buddhist and Jainism books	Elements of art Knowledge of manuscript Knowing Indian artists during Rajput period , their paintings, Technique, And Feature , Themes of paintings	History- our ancient books	History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print , Wood cut print , or Serigraphy	**Giving Notes and MCQ on the topic, taking LOA**	**Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print**
	23	2.Rajasthani school of miniature a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of . 1.Maru Ragini 2.Chaugan Players a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of							
		3.Krishna on Swing 3.Radha Bani Thani 4.Bharat Meets Rama at Chitrakoot							
		2. Pahari School of miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of							

		1.Krishna with Gopis 2.Nand Yashoda and Krishna with Kinsmen going to Vrindavan Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
MAY		Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print Revision of chapter 1,2.3	Learning about Rajasthani Miniature	Origin and development of Rajasthani art and its sub school Indian artists during Rajput period , their paintings, Technique, And Feature , Themes of paintings	History- our ancient books Handling , various tools used in making stencils, or silk screen printing	History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print. Wood cut print , or Serigraph y	**Giving Notes and MCQ on the topic, taking LOA**	**Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print**
		Theory; Chapter -2 The Rajasthani School of Painting							
		Practical - Landscape painting in water colour							
	0 7	Practical - Landscape painting in water colour							
JUNE			Learning about Rajasthani Miniature	Indian artists during Mughal period , their paintings, Technique, And Feature , Themes of paintings	In maths in various topics as trigonometry, mensuration History- our ancient books Handling, various	In maths in various topics as trigonometry, mensuration History- our ancient books Handling, various tools used in making stencils, or	Making Graphic Layout to Stencil of Mylar sheet/Silk screen and taking Print. Wood cut print , or	**Giving Notes and MCQ on the topic, taking LOA**	**Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print**
	16	Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print Chapter-4 Mughal School of Miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of 1.Krishna Lifting Mt. Govardhan 2.Falcon on Bird Rest							

		3.Kabir and Raidas Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print			tools used in making stencils, or silk screen printing	silk screen printing	Serigraph y		
		4. Marriage Procession of Dara Shikoh Chapter-5 Deccan School of Miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of. 1.Chand Bibi Playing Polo 2.Hazrat Nizamuddin Auliya &Amir Khusro							
		Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
JULY	26	Theory chapter -5 Deccan School of Miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of. 1.Chand Bibi Playing Polo 2.Hazrat Nizamuddin Auliya &Amir Khusro REVISION	Learning about Deccan miniature, Sub Schools like Ahmad Nagar Golkonda Bijapur Hyderabad Tanjore	Origin and development of Deccan art and its sub school Indian artists during Deccan period , their paintings, Technique, And Feature , Themes of paintings	**Shapes and mensuratio n maths**	**Shapes and mensuration maths**	Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print, Wood cut print , or Serigraph y	**Giving Notes and MCQ on the topic, taking LOA**	**Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print**
		REVISION OF CHAPTER 4 & 5 Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
		Theory. Chapter 6							

		New Era in Indian Art Chapter-7 National Flag of India and the Symbolic Significance of its form and colors							
		Chapter-8 The Bengal School of Painting a. Origin & Development b. Sub- Schools c. Features of the School							
AUG		Chapter-9 Appreciation of following Bengal school Paintings. 1.Journeys end 2.Shiv and Sati Chapter 10 Contribution by Indian Artists towards National Freedom movement	<u>Learning about art work done in southern part of India, Bijapur ,Golconda etc</u>	Origin and development of Deccan art and its sub school	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Making Graphic Layout to Stencil of Mylar sheet/Silk screen and taking Print, Wood cut print , or Serigraph y	**Giving Notes and MCQ on the topic, taking LOA**	**Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print**
	24	3.Radhika 4.Meghdoot							
		Revision chapter 7,8,9,10 (Bengal School) Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
		REVISION FOR TERM -1 Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
SEPT		REVISION FOR TERM -1 CHAPTER 1 TO 5	<u>To learn art work of Kangra, Kulu, Chamba , Jammu in Himalayan region</u>	Origin and development of Pahari art and its sub school			Making Graphic Layout to Stencil of Mylar sheet/Silk	**Giving Notes and MCQ on the topic, taking LOA**	**Graphic Students will Draw and Paint Graphic Layout in**
		REVISION FOR TERM -1 CHAPTER 6 TO 10							
		Term 1 exam							

	2 3	Term 1 exam					screen And taking Print, Wood cut print , or Serigraph y		**black, blue or red color, Wood print and Serigraphy print**
OCT	22	CHAPTER 11 Introduction to Modern Trends in Indian Art. Practical -Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print CHAPTER 12 Painting of Contemporary (Modern) Indian Artists 1. Mother and child 2. Haldi Grinder 3. Mother Teresa 4. Ram Vanquishing The pride of Ocean	<u>To learn about Art and Famous Artist of Bengal area.</u>	Origin and development of Bengal art and its sub school	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Making Graphic Layout to Stencil of Mylar sheet/Silk screen and taking Print . Wood cut print , or Serigraph y	**Giving Notes and MCQ on the topic, taking LOA**	**Graphic Students will Draw and Paint Graphic Layout in black, blue or red color, Wood print and Serigraphy print**
		CHAPTER -13 Graphic Prints of Contemporary (Modern) Indian Artists 1.The Children 2.The Devi 3.Of Walls 4. Man women and Tree							
		CHAPTER -14 Sculptures of Contemporary(Modern) Artists. 1.Triumph of Labour 2.Santhal family 3.Cries Unheard 4.Ganesha							

		Practical- -Making Graphic Layout to Stencil of Mylar sheet/Silk screen and taking Print Total 10 layout +10 Prints							
NOV			Here we will learn about modern Artist like Yamini Roy , Ram Kinkar, This chapter will deal with folk art of Indian traditions . god, goddess, etc	Origin and development of The Modern Indian Art art and its sub school	History- our ancient books Handling, various tools used in making stencils, or silk screen printing	History- our ancient books Handling, various tools used in making stencils, or silk screen printing		To learn our cultural heritage To learn our cultural heritage	
		Theory; REVISION OF CHAPTER 12, 13 And 14							
		TERM 2 EXAM							
	16	TERM 2 EXAM							
DEC	**24**	**PRE-BOARD -1**							
		PRE-BOARD -1							
JAN	**14**	**PRE-BOARD -2**							
		PRE-BOARD -2							
FEB	22								

SUBJECT :GRAPHICS

Text Book : 1. History of Indian art part 2 (NCERT)
PANORMIC INDIAN PAINTING

Month	WD	Chapter/Sub-Topics	Learning Objectives	Key Terms and Concept	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
APRIL		Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print Theory; Chapter – 1 Introduction to Indian Miniature School a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of	Learning about Manuscript Painting done in our Upanishad and Purana and Buddhist and Jainism books	Elements of art Knowledge of manuscript Knowing Indian artists during Rajput period , their paintings, Technique, And Feature , Themes of paintings	History- our ancient books	History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting <u>Minimum 2 still life or Object has to be done</u>	**Giving Notes and MCQ on the topic, taking LOA**	**Painting Students will make the painting. Still life, Nature study and Composition in Water Color**
	23	2.Rajasthani school of miniature a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of . 1.Maru Ragini 2.Chaugan Players a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of							
		3.Krishna on Swing 3.Radha Bani Thani 4.Bharat Meets Rama at Chitrakoot							
		2. Pahari School of miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School							

		Appreciation of 1.Krishna with Gopis 2.Nand Yashoda and Krishna with Kinsmen going to Vrindavan Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
MAY		Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print Revision of chapter 1,2.3	Learning about Rajasthani Miniature	Origin and development of Rajasthani art and its sub school Indian artists during Rajput period , their paintings, Technique, And Feature , Themes of paintings	History- our ancient books Handling, various tools used in making stencils, or silk screen printing	History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting <u>Minimum 2 still life or Object has to be done</u>	**Giving Notes and MCQ on the topic, taking LOA**	**Painting Students will make the painting. Still life, Nature study and Composition in Water Color**
		Theory; Chapter -2 The Rajasthani School of Painting							
		Practical - Landscape painting in water colour							
	0 7	Practical - Landscape painting in water colour							
JUNE			Learning about Rajasthani Miniature	Indian artists during Mughal period , their paintings, Technique, And Feature , Themes of paintings	In maths in various topics as trigonometry, mensuration History- our ancient books Handling, various tools	In maths in various topics as trigonometry, mensuration History- our ancient books Handling, various tools	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting	**Giving Notes and MCQ on the topic, taking LOA**	**Painting Students will make the painting. Still life, Nature study and Composition in Water Color**
	16	Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print Chapter-4 Mughal School of Miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of							

		1.Krishna Lifting Mt. Govardhan 2.Falcon on Bird Rest 3.Kabir and Raidas Making of Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print			History- our ancient books Handling, various tools used in making stencils, or silk screen printing	used in making stencils, or silk screen printing	Minimum 2 still life or Object has to be done		
		4. Marriage Procession of Dara Shikoh Chapter-5 Deccan School of Miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of. 1.Chand Bibi Playing Polo 2.Hazrat Nizamuddin Auliya &Amir Khusro							
		Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
JULY	26	Theory chapter -5 Deccan School of Miniature Painting a. Origin & Development b. Sub- Schools c. Features of the School Appreciation of. 1.Chand Bibi Playing Polo 2.Hazrat Nizamuddin Auliya &Amir Khusro REVISION	Learning about Deccan miniature, Sub Schools like Ahmad Nagar Golkonda Bijapur Hyderabad Tanjore	Origin and development of Deccan art and its sub school Indian artists during Deccan period , their paintings, Technique, And Feature , Themes of paintings	**Shapes and mensuration maths**	**Shapes and mensuration maths**	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting Minimum 2 still life or Object has to be done	**Giving Notes and MCQ on the topic, taking LOA**	**Painting Students will make the painting. Still life, Nature study and Composition in Water Color**
		REVISION OF CHAPTER 4 & 5 Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
		Theory.							

		Chapter 6 New Era in Indian Art Chapter-7 National Flag of India and the Symbolic Significance of its form and colors							
		Chapter-8 The Bengal School of Painting a. Origin & Development b. Sub- Schools c. Features of the School							
AUG		Chapter-9 Appreciation of following Bengal school Paintings. 1.Journeys end 2.Shiv and Sati Chapter 10 Contribution by Indian Artists towards National Freedom movement	Learning about art work done in southern part of India, Bijapur ,Golconda etc	Origin and development of Deccan art and its sub school	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting Minimum 2 still life or Object has to be done	**Giving Notes and MCQ on the topic, taking LOA**	**Painting Students will make the painting. Still life, Nature study and Composition in Water Color**
	24	3.Radhika 4.Meghdoot							
		Revision chapter 7,8,9,10 (Bengal School) Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
		REVISION FOR TERM -1 Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print							
SEPT		REVISION FOR TERM -1 CHAPTER 1 TO 5	To learn art work of Kangra, Kulu, Chamba , Jammu in Himalayan region	Origin and development of Pahari art and its sub school			Minimum 2 flower has to be done in pencil shading or Charcoal	**Giving Notes and MCQ on the topic, taking LOA**	**Painting Students will make the painting. Still life, Nature study and**
		REVISION FOR TERM -1 CHAPTER 6 TO 10							
		Term 1 exam							

	2 3	Term 1 exam					Practical Painting Minimum 2 still life or Object has to be done		**Composition in Water Color**
OCT	22	CHAPTER 11 Introduction to Modern Trends in Indian Art. Practical -Making Graphic Layout to Stencil of Mylar sheet/Silk screen And taking Print CHAPTER 12 Painting of Contemporary (Modern) Indian Artists 1. Mother and child 2. Haldi Grinder 3. Mother Teresa 4. Ram Vanquishing The pride of Ocean	To learn about Art and Famous Artist of Bengal area.	Origin and development of Bengal art and its sub school	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	**Shapes and mensuration maths** History- our ancient books Handling, various tools used in making stencils, or silk screen printing	Minimum 2 flower has to be done in pencil shading or Charcoal Practical Painting Minimum 2 still life or Object has to be done	**Giving Notes and MCQ on the topic, taking LOA**	**Painting Students will make the painting. Still life, Nature study and Composition in Water Color. Completing the art file and submission before Pre-board Exam**
		CHAPTER -13 Graphic Prints of Contemporary (Modern) Indian Artists 1.The Children 2.The Devi 3.Of Walls 4. Man, women and Tree							
		CHAPTER -14 Sculptures of Contemporary (Modern) Artists. 1.Triumph of Labour 2.Santhal family 3.Cries Unheard 4.Ganesha							

		Practical- -Making Graphic Layout to Stencil of Mylar sheet/Silk screen and taking Print Total 10 layout +10 Prints							
NOV		Theory; REVISION OF CHAPTER 12, 13 And 14	Here we will learn about modern Artist like Yamini Roy , Ram Kinkar, This chapter will deal with folk art of Indian traditions . god, goddess, etc	Origin and development of The Modern Indian Art art and its sub school	History- our ancient books Handling, various tools used in making stencils, or silk screen printing	History- our ancient books Handling, various tools used in making stencils, or silk screen printing		To learn our cultural heritage To learn our cultural heritage	
	16	TERM 2 EXAM							
DEC	**24**	**PRE-BOARD -1**							
		PRE-BOARD -1							
JAN	**14**	**PRE-BOARD -2**							
		PRE-BOARD -2							
FEB	22								

SUBJECT: HINDUSTANI MUSIC (VOCAL)
SUBJECT CODE 034

Month	WD / NOP	Chapter/Sub-Topics	Learning Objectives	Art Integration	Inclusive Teaching	Project / Practical	Competency Based Activity Learning	Learning Outcomes
April May	23 07	Brief study of the following :- **Alankar, Kan, Meend, Khatka, Murki, Gamak** Taal - **"Rupak Dhamar and Jhaptaal" Parichay with Tala Notation and hand Demonstration with Thah, Dugun, Tigun and Chaugun Laykari.**	To know about Chalan of swar Variations in Swar and Harkat Knowing about Hand demonstration of taals Taali khali Bibhag and Sam for each Taal	Integration with Songs in this Particular taals	Defination of Pitch and Volume	Making Project file regarding this Taals and different Variations of it	Arranging Line and Matra Calculation for taals	Children will get to know about Chalan of swar Variations in Swar and Harkat Knowing about Hand demonstration of taals Taali khali Bibhag and Sam for each Taal
June July	16 26	Brief study of the following **Gram, Murchhana, Alap,Tana.** Raag **- Bhairav & Bageshri (** Parichay and One Drut Khayal with simple elaborations and few tanas along with **Tarana and Dhamar)**	To know about Raag Concepts and Swar Chalan in raag 3 Different Types of Gram and Murchana along with Usage of Alap and Taan in Raags	Integration with Songs in this Particular Raag	Bandish of this Raag along with Teentaal	Making projects regarding this raag Tarana and Dhamar for this	In practical Classes Use of different Song related to this raag	Children will get to know about Raag Concepts and Swar Chalan in raag 3 Different Types of Gram and Murchana along with Usage of Alap and Taan in Raags
Aug	24	Detail study of the following ➢ **Sangeet Ratnakar** ➢ **Sangeet Parijat** Life sketch and Contribution ➢ **Faiyaz Khan,** ➢ **Bade Ghulam Ali Khan,**	To know about Concept of Suddh komal and tivra Swar in Sangeet Ratnakar 22 Shruti Defination in Sangeet Parijaat Knowing About Contribution towards music	Integration with real life events of them and interveiws	Get to know about them through listening to their interviews	Writing about them in Describe mannor in project file	Activity of Write in borad and game of memory	Children will get to know about Concept of Suddh komal and tivra Swar in Sangeet Ratnakar 22 Shruti Defination in Sangeet Parijaat Knowing About Contribution towards music from Faiyaaz khan And Bade ghulam Ali khan

			from Faiyaaz khan And Bade ghulam Ali khan					
Sept	23							
Oct	22	Raag - **Malkoush and Suddh Sarang(** Parichay and One Drut Khayal with simple elaborations and few tanas along with **Tarana and Dhamar)** Life sketch and Contribution ➢ **Krishna Rao Shankar Pandit**	To know about Singing in Teentaal Bandsih along with the notation of the raag and Use of Aalap And taan with the help of this Raag notes	Integration with Songs in this Particular Raag	Bandish of this Raag along with Teentaal	Writing the notation of Bandish along with tha taal script	Activity Based on Shuffling the musical Notes	Children will get to know about Singing in Teentaal Bandsih along with the notation of the raag and Use of Aalap And taan with the help of this Raag notes
Nov	16							
Dec	24	➢ **Tuning of Tanpura** ➢ **Historical development of Time Theory of Ragas**	To know about the swar which we use during Tuning of tanpura in different raags Build Materials of Tanpura Time division of Raagas and conditions regarding Swar and Time	Integration with the raag timimgs and swar	Inclusive with all raag timigs and usgae of swars with reference to Vadi and Samvadi Swar	Project Regarding the Time theory And Concept of Poorvang and Utraang Swar Raag	Activity of Finding Out the swar of Time theory	Children will get know about the swar which we use during Tuning of tanpura in different raags Build Materials of Tanpura Time division of Raagas and conditions regarding Swar and Time
Jan	17							
Feb	22							

SUBJECT : GENERAL STUDIES

The course is divided into **5 units**:

Unit I: Science and Society **APRIL 2026**

- Nature of science
- Science as a social enterprise
- Role of science in society

Unit II: Contemporary Problems of Indian Society **MAY+ JUNE 2026**

- Issues related to women
- Health care system
- Contemporary social issues in India

Unit III: Career Pathways **JULY+ AUGUST 2026**

- Goal setting
- Common career options
- Internship as a bridge between school and university

Unit IV: Social Responsibility **OCTOBER + NOVEMBER 2026**

- Types of social responsibility
- Role of students in a group
- Principles of responsible behavior

Unit V: Human Rights **DECEMBER 2026**

- Universal Declaration of Human Rights and its significance
- Role of individuals, communities, and businesses in promoting human rights
- Link between human rights and sustainable development