DELHI PUBLIC SCHOOL
CHAS, BOKARO

CBSE Affiliation No.
3430369

TERM AND MONTH-WISE SPLIT-UP SYLLABI OF CLASS – XI
FOR THE SESSION 2024-2025

SUBJECT: ENGLISH

   Text Books : 1. HORNBILL
   2. SNAPSHOTS

Month	WD/ NOP	Chapter/Sub- Topics	Key Terms and Concept	Art Integration Topics	Project / Practical Work	Research Work Blended Learning
JUNE	21	**The Portrait of the Lady** (Hornbill)	In this story, the author draws a pen portrait of his grandmother. He beautifully unfolds his relationship with her while describing her appearance and daily activities.The grandmother herself was not formally educated but was serious about the author's education	Prepare a Thank You Card for your grandmother and in it mention one of her character traits that inspires you the most.	What is the theme of the story? How does the author use time, place and character to convey this theme Select a character form in the lesson. Write a message this character would write on social media on education. Imagine you are Khuswant Singh. How would you portray your grandmother? Mention one characteristics trait of her which is similar to the grandmother of the story.	The students will talk with their family members about elderly people who they have been intimately connected with and who are not there with them now. They will Write a short description of someone they like
		A Photograph (Hornbill)	The poem is to capture moments from life which remains as pictures in our minds. It is about the moments in life which leave an indelible imprint on our minds and past memories keep flashing back into our mind when we look at the photograph years later. It highlights that when death strikes we humans are expected to accept the loneliness, the vaccum it creates.	A hand made creative photo frame with a self- created ten lines poem on your mother.	A comparative study of the prose **The Portrait of a Lady and the poem A Photograph.** Collect photographs of the Armenian Tribe.	
		Advertisement	Format, design and layout of an advertisement to be given. Skill taught and key concepts, persuasive			

			strategies, analyses, advertising information. Types of advertisement- i. classified ii. commercial			
		The Summer of the Beautiful White Horse [Snapshots]	The story is about the two boys and their desire to ride a horse.They were extremely poor and could not afford to buy one so they stole a horse but as they belonged to the family who were known for their honesty, their conscience got pricked and they returned the horse back to its owner.	Shavian Asthana – India's grand hope for an Asian Games Gold in Horse Riding.	Write down a story which reflect on the significance of human connection, empathy, and the persuit of redemption.	The story' nostalgic beginning create a mood of reminiscence, share a childhood incident from your own life that could make a compelling story.
		The Voice of the Rain (Hornbill)	The poem is an imaginary dialogue between the poet and the rain. Surprisingly, the rain answers the questions asked by the poet and tells about its birth and end. The poet has drawn a parallelism between the rain and a song.	Musical presentation of rain	Poetry writing on the wind, sun, moon or snow- highlighting the pride in their narration.	The students will compare the cyclic movement of the rain brought out in the poem to what they have learnt in science.
JULY	26	**WRITING SKILLS** **Speech and Debate**		Speech Videos	Sample speech and debate will be read out in the class.	
		The Laburnum Top (Hornbill)	The name itself present a picture of hanging yellow flowers that relaxes our mind and takes us to the world of nature's beauty.	Pics of Laburnum tree and goldfinch bird will be shown with an animated video.	Painting of Goldfinch and Laburnum Tree	Look for some other poem on a bird or a tree in English or any other language
		We're Not Afraid to Die **(Hornbill)**	This is a story of extreme courage and skill exhibited by a family of four comprising of the narrator, his wife Mary and two children Suzanne and Jonathan	Video clipping of Titanic movie.	Read and write the summary of the poem The Rime of the Ancient Marriner.	Peer interaction about subjective responses to the text, empathy with and comment on universal experiences and human behavior related to risk- taking and adventure.
AUGUST	23	**Reading skills** **Note making**	Understanding important ideas	They will listen to speech and try		

			Writing them down, abridging the verbs Avoiding examples, explanations, repetition.	to make the notes.		
		Summarizing	Understand important ideas. Writing them down, abridging the verbs Avoid examples, explanations, repetition	They will be able to summarize any topic from different domains.		
		The Address (Snapshots)	The story is about the human predicament that follows the pre-war and post-war periods	reading novel – Great Expectations	Paragraph – Memory about a place where you lived earlier	Jot down the name of objects that evoke memories of earlier life.
SEPTEM BER	12	**Discovering Tut: The Saga Continues** (Hornbill)	The story tells us about the intricate details of the boyish PharaohTutankhamen, his mysterious death, his power, his forensic reconstruction and his CT Scanning for investigation purpose.	Debate-rediscovering history with the help of technology.	Extinction of language and language preservatio n.	
		Poster Making	Format for creating posters; the design and layout of a poster in English.	Presentations based on skills. (PPT/Word file)	Newspaper cuttings of posters.	Work on aesthetics that are both appealing and startling.
		The Adventure (Hornbill)	Single event can change the course of history of a nation; the method of inquiry are same.	Guest lecture by Science faculty on "Quantum Theory"	List some scientific theories you know.	The story is called The Adventure , compare it with the Adventure describe in ' We are not adfraid to die'
OCTOBE R	16	**Silk Road** (Hornbill)	The sensitive behavior of hill-folk; why people undergo the travails difficult journey willingly; the account of exotic places in legends and reality.	Video on 'Mount Kailash'	Discussion on "Adventure in life" and "Importance of Travelling"	
		Father to Son (Hornbill)	The poem highlights a universal problemgeneration gap and the lack of communication between father and son. The father laments for not understanding his son and later the realisation dawns upon him that they must live	Song for father	Write a diary entry expressing your confession of being responsible of cold indifferences between you and your	

			together.		parents and finding solutions to the problem	
		Childhood (Hornbill)	The story highlights about the process of growing up, individuality, rationalism and realization of falsehood and hypocrisy of adult world. The poet further teaches us the values of self belief, determination, self learning and insight formation	Collect pictures and write small details about some lost Childhood games	Write up on the most memorable and adorable childhood experiences	
		Mother's Day (Snapshots)	The following play is a humorous portrayal of the status of the mother in a family. The humour springs from the unusual situation where the personalities of two ladies(Ms. Fitzgerald and Ms. Pearson) get exchanged. Their subsequent behaviour is in total contrast to the previous one is the powerful source of laughter.	A video on generation gap followed by discussion "How do you value elderly?"	Script a drama showcasing family ties.	
NOVEM BER	17	**Birth** (Snapshots)	The chapter is about an impressive story of a doctor's successful efforts to resuscitate the precious life of a new born baby hopelessly given up as a still born child by an experienced mid-wife. It is about a young doctor's relentless efforts – determination, will power, satisfaction, sense of achievement and fulfillment	Video clipping of the movie 3 Idiots	Noble profession of doctors and service to mankind.	
		The Tale of Melon City (snapshots)	It's a poem of mockery on government system, through the Melon city , the poet represents any nation whose policies are on the basis of superstations and old age beliefs.	Read - Akbar Birbal	Article - How can peace and liberty be maintained in a state?	
Dec	22	**Worksheets**				
Jan	19	**Revision Practice Test / Remedial Classes**				
Feb	07	**Final Exam**				

SUBJECT: MATHEMATICS

PRESCRIBED TEXT BOOKS : 1. Mathematics -A Textbook for class XI (NCERT).

REFERENCE BOOKS: 1. Mathematics class XI (volume I and II) R.D Sharma
2. Laboratory manual Mathematics class XI by **Arihant Prakashan.**

Month	Topics to be taught	Activity
June 21	**Sets:** Sets and their representations. Empty set. Finite and Infinite sets. Equal sets. Subsets. Subsets of a set of real numbers especially intervals (with notations). Power set. Universal set. Venn diagrams. Union and Intersection of sets. Practical Problems based on sets. **Relations & Functions:** Ordered pairs, Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the sets of real with itself. Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. **Function;** Function as a special kind of relation from one set to another. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions: constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs.	**Activity-3,4**
July 25	**Trigonometric Functions:** Positive and negative angles. Measuring angles in radians and in degrees and conversion of one into other. Definition of trigonometric functions with the help of unit circle. Truth of the $\sin^2 x + \cos^2 x = 1$, for all x. Signs of trigonometric functions . Domain and range of trigonometric functions and their graphs. Expressing sin $(x \pm y)$ and cos $(x \pm y)$ in terms of sinx, siny, cosx & cosy and their simple application. Deducing identities like the following: $$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}, \cot(x \pm y) = \frac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$$ $$\sin x + \sin y = 2\sin\frac{x+y}{2}\cos\frac{x-y}{2}, \cos x + \cos y = 2\cos\frac{x+y}{2}\cos\frac{x-y}{2},$$ $$\sin x - \sin y = 2\cos\frac{x+y}{2}\sin\frac{x-y}{2}, \cos x - \cos y = -2in\frac{x+y}{2}\sin\frac{x-y}{2},$$ Identities related to sin2x, cos2x, tan2x, sin3x, cos3x and tan3x. **Sequence & Series** Arithmetic Progression (A.P.). Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.	**Activity 11**
August 23	**Complex Numbers** Need for complex numbers. Algebraic properties of complex numbers. **Quadratic Equations** Statement of Fundamental Theorem of Algebra, solution of quadratic equations in the complex number system. **Linear Inequations** Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line. Graphical solution of linear inequalities in two variables. Graphical solution of system of linear inequalities in two variables. **Permutations and Combinations:** Fundamental principle of counting. Factorial n. Permutations and combinations and their connections, simple applications.	Activity -12

	Binomial Theorem: Binomial theorem, general term, Middle term,	
SEPT 12	Revision for half yearly examination. Half early examination. Discussion of half yearly exam question paper.	
OCT 16	**Straight Lines:** Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line, parallel to axis, point-slope form, slope-intercept form, two-point form, intercept form and normal form. General equation of a line. Distance of a point from a line. **Circle:** General equation in all three form	**Activity -29**
NOV 17	**Conic Sections:** Sections of a cone: circles, ellipse, parabola, hyperbola . Standard equations and simple properties of parabola, ellipse and hyperbola. **Introduction to Three–dimensional Geometry:** Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points and section formula.	Activity -18
DEC 22	**Limits and Derivatives:** Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions, trigono**metric function.** **Derivatives:** Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions, trigonometric, exponential and logarithmic functions. metric, exponential and logarithmic functions. Definition of derivative, relate it to slope of tangent of a curve, derivative of sum, difference, product and quotient of functions. The derivative of polynomial and trigonometric functions**.**	Activity -14
JAN 19	**Probability:** Random experiments, outcomes, sample spaces (set representation). Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events,. Probability of an event, probability of 'not', 'and' and 'or' events. **Statistics Measures of dispersion**; Range, mean deviation, variance and standard deviation of ungrouped/grouped data. Comprehensive Revision for annual examination.	Activity- 32
FEB 07	Revision	
MAR 13	**ANNUAL EXAM**	

SUBJECT: PHYSICS

Text Book: 1. Physics Part-I, Textbook for Class XI, Published by NCERT
2. Physics Part-II, Textbook for Class XI, Published by NCERT

Month	W. I	Chapter/Unit	Concepts/Terms/ Learning Objects	Activity	Project / Practical Work	Smart Board Activity
June	21	**Unit-1** **Chapter–2: Units and Measurements**	**Chapter–2** Measurements: Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units; significant figures. Dimensions of physical quantities, dimensional analysis and its applications		To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume. To measure diameter of a given wire and thickness of a given sheet using screw gauge.	Smart Board to explain precision of measuring instruments, errors in measurement.
		Unit-II: Kinematics	**Chapter–3: Motion in a Straight Line** Frame of reference, Motion in a straight line: Position-time graph, speed and velocity. Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, average speed and instantaneous velocity, uniformly accelerated motion, velocity - time and positiontime graphs. Relations for uniformly accelerated motion (graphical treatment).	To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).	To determine volume of an irregular lamina using screw gauge. To determine radius of curvature of a given spherical surface by a spherometer.	Smart Board to explain average speed and instantaneous velocity.
july	25	**Unit-II kinematics**	**Chapter–4: Motion in a Plane** Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration projectile motion, uniform circular			

			motion.			
August	23	**Unit-III Laws of motion**	**Chapter–5 Laws of Motion:** Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).			
		Unit IV: Work, Energy and Power	Chapter–6: Work, Engery and Power: Work done by a constant force and a variable force; kinetic energy, work energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non conservative forces: motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.			
Sept	12	**REVISION**				
Oct	16	**Unit V: Motion of System of Particles and Rigid Body**	Chapter–7: System of Particles and Rotational Motion: Centre of mass of a twoparticle system, momentum conservation and centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications			Smart Board to explain law of conservation of angular momentum and its applications. Smart Board to explain Kepler's laws of planetary motion.
Nov	17	**Unit V: Motion of System of Particles and Rigid Body**	. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects	To observe the decrease in pressure with increase	To determine the mass of two different objects using a beam balance.	Smart Board to explain Kepler's laws of planetary motion.

		Unit VI: Gravitation	(no derivation). Chapter –8: Gravitation : Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellites	in velocity of a fluid.		
Dec	22	**Unit VII: Properties of Bulk matter**	Chapter –9: Mechanical Properties of Solids : Elastic behaviour, Stress - strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity, Poisson's ratio; elastic energy.		To study the relationship between the temperature of a hot body and time by plotting a cooling curve.	Smart Board to explain First law of thermodynamics, isothermal and adiabatic processes.
		Unit VII: Properties of Bulk Matter	Chapter –10: Mechanical Properties of Fluids : Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise Chapter-11 thermal properties of matter Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law,			

Jan	19	**Unit VIII: Thermodynamics** **Unit IX: Behaviour of Perfect Gases and Kinetic Theory of Gases**	Chapter–12: Thermodynamics: Thermal equilibrium and definition of temperature (zeroth law of thermodynamics), heat, work and internal energy. First law of thermodynamics, isothermal and adiabatic processes. Second law of thermodynamics: reversible and irreversible processes, Heat engine and refrigerator.Heat engine and refrigerator chapter–13: Kinetic Theory: Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.	To study the factors affecting the rate of loss of heat of a liquid.	To find the weight of a given body using parallelogram law of vectors.	Smart Board to explain First law of thermodynamics, isothermal and adiabatic processes.
Feb	7*	**Unit X: Oscillations and Waves**	Chapter–14: Oscillations: Periodic motion - time period, frequency, displacement as a function of time, periodic functions. Simple harmonic motion (S.H.M) and its equation; phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period. Free, forced and damped oscillations (qualitative ideas only), resonance. Chapter–15: Waves: Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats, Doppler effect	To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.	To study variation of time period of a simple pendulum of a given length by taking bobs of same size but different masses and interpret the result.	Smart Board to explain Kinetic interpretation of temperature; rms speed of gas molecules. Smart Board to explain principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes.
March		**REVISION**				

Month	W. D.	Chapter/Unit	Concepts/Terms/ Learning Objects	Project / Practical Work
June	6+15	Chapter : Some Basic Concept of Chemistry	• General Introduction : • Importance and scope of chemistry. • Atomic and molecular masses. • Mole concept and molar mass • Percentage composition • Empirical and molecular formula • Chemical reactions, stoichiometry and calculations based on stoichiometry • Concentration of solutions	**A. Basic Laboratory Techniques** 1. Cutting glass tube and glass rod 2. Bending a glass tube 3. Drawing out a glass jet 4. Boring a cork **B. Characterization and Purification of Chemical** Substances 1. Determination of melting point of an organic compound. 2. Determination of boiling point of an organic compound.
		Chapter: Structure of Atom –	• Bohr's model and its limitations • Concept of shell and subshells • Dual nature of matter and light, de-Broglie's relationship • Heisenberg uncertainty principle • Concept of Orbitals • Quantum numbers • Shapes of s, p, and d–orbitals • Rules for filling electrons in orbitals(Aufbau principle) • Pauli's exclusion principle • Hund's Rule. • Electronic configuration of atoms. • Stability of half filled and completely filled orbitals.	
July	25	Chapter: Classification of Elements and Periodicity in Properties	• Modern periodic law and the present form of periodic table. Periodic trends in properties of elements (atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency), Nomenclature of elements with atomic number greater than 100.	C. **Quantitative Estimation** i. Using a mechanical balance/electronic balance. ii. Preparation of standard solution of Oxalic acid. iii. Determination of strength of a given solution of Sodium hydroxide by titrating it against Standard solution of Oxalic acid.
		Chapter: Chemical Bonding & Molecular Structure	• Octet rule • Valence electrons • Types of chemical bonding • Ionic bond • Covalent bond and their examples • Lewis dot structure • Polar character of covalent bond • Covalent character of ionic bond • Valence bond theory, resonance • Geometry of covalent molecules • VSEPR theory • Concept of hybridization, involving s, p and d-orbitals, • Shapes of some simple molecules. • Molecular orbital theory of homo nuclear diatomic molecules (qualitative idea only)	

			Hydrogen bond.	
Aug	23	Chapter : Redox Reactions	• Concept of oxidation and reduction • Redox reactions • Oxidation number • Balancing redox reactions in terms of loss and gain of electrons and change in oxidation number	iv. Preparation of standard solution of Sodium carbonate. v. Determination of strength of a given solution of hydrochloric acid by titrating it against Standard Sodium Carbonate solution.
		Chapter: Organic Chemistry: Some basic Principles and Techniques	• General introduction • Classification and IUPAC nomenclature of organic compounds. • Electronic displacements in a covalent bond • Inductive effect • Electromeric effect • Resonance and hyper conjugation. • Homolytic and heterolytic fission of acovalent bond • Free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.	
Sep	5+7	Chemical Thermodynamics:	• Concepts of System and types of systems • Surroundings • work, heat, energy, extensive and intensive properties, state functions. • Hess's law • ΔU and ΔH • First law of thermodynamics • Internal energy and enthalpy • Measurement of of constant heat summation • Enthalpy of bond dissociation • Combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution	Crystallization of impure sample of any one of the following: Alum, Copper Sulphate, Benzoic Acid.
Oct	16	Chemical Thermodynamics:	• Second law of Thermodynamics (brief introduction) • Introduction of entropy as a state function • Gibb's energy change for spontaneous and nonspontaneous processes. • Third law of thermodynamics (brief introduction)	Inorganic Salt Analysis
		Equilibrium:	• Equilibrium in physical and chemical processes • Dynamic nature of equilibrium • Law of mass action • Equilibrium constant • Factors affecting equilibrium – Le Chatelier's principle • Ionic equilibrium	

			- Ionization of acids and bases - Strong and weak electrolytes - Degree of ionization - Ionization of poly basic acids, acid strength - Concept of Ph - Buffer solution - Solubility product - Common ion effect (with illustrative examples).	
Nov	17	Hydrocarbons:	• Classification of Hydrocarbons Aliphatic Hydrocarbons: **Alkanes** – • Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions. **Alkenes** – • Nomenclature, structure of double bond (ethene)	Inorganic Salt Analysis
Dec	22	Hydrocarbons:(continued)	• Geometrical isomerism • Physical properties, methods of preparation Chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition • **Alkynes** – Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of – hydrogen, halogens, hydrogen halides and water.	Detection of -Nitrogen, Sulphur, Chlorine in organic compounds.
Jan	19	Aromatic Hydrocarbons:	- Introduction, IUPAC nomenclature of benzene - Resonance - Aromaticity, chemical properties: - Mechanism of electrophilic substitution. - Nitration - Sulphonation - Halogenation	
Feb	7	Aromatic Hydrocarbons:	- Friedel Craft's alkylation and acylation - Directive influence of functional group in monosubstituted benzene. - Carcinogenicity and toxicity.	

SUBJECT: BIOLOGY
Text Book: NCERT

Month	W. D.	Chapter/Unit	Concepts/Terms/ Learning Objects	Project / Practical Work	Art Integration Topics / Inclusive Teaching
JUNE	21	**Unit-I Diversity of Living Organisms**	**Chapter-1: The Living World** Biodiversity; Need for classification; three domains of life; concept of species and taxonomical hierarchy; binomial nomenclature. **Chapter-2: Biological Classification** Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids. **Chapter-4: Animal Kingdom** Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level (salient features and distinguishing features and a few examples of each category). (No live animals or specimen should be displayed.)	B.1 Parts of a compound microscope. B.3 Virtual specimens/slides/models and identifying features of - *Amoeba, Hydra,* liverfluke, *Ascaris*, leech, earthworm, prawn, silkworm, honeybee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit. A7 Test for the presence of sugar, starch, protein and fats in suitable plant and animal materials.	**Activity – Making a Herbarium File**
July	25	**Unit-II Structural Organization in Animals and Plants**	**Chapter-3: Plant Kingdom** Classification of plants into major groups salient and distinguishing features and a few example of-Algae, Bryophyta, Pteridophyta and Gymnospermae. **Chapter-5: Morphology of Flowering Plants** Morphology of different parts of flowering plants, roots, stem, leaf, inflorescence flower and seed. Description of family: Solanaceae **Chapter-6: Anatomy of flowering plants**: Anatomy and functions of tissue system in dicot and monocots.	B.2 Specimens/slides/models and identification with reasons - Bacteria, *Oscillatoria, Spirogyra, Rhizopus*, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen. A1 Study and describe a locally available common flowering plant, from any one family: Solanaceae	Activity : Make a bouquet of flowers using paper cutting / origami & decorative materials. The flowers to belong to various inflorescence categories.

				(Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams). Types of root (tap and adventitious) types of stem (herbaceous and woody) leaf arrangement, shape, venation, simple and compound. A2 Preparation and study of TS of dicot and monocot roots and stems (primary) B5 Different types of influences (cymose and racemose)	
			Chapter-7: Structural Organization in Animals Morphology, anatomy and function of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog		
August	23	**Unit-III Cell: Structure and Function**	**Chapter-8: Cell-The Unit of Life** Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus. **Chapter-9: Biomolecules** Chemical constituents of living cells: biomolecules, structure	A3 Study of osmosis by Potato osmometer. A4 Study of plasmolysis in epidermal peels (eg. Rhoeo/Lily leaves or flashy scale leaves of onion bulb.)	Activity: Make 3D models of biomolecules using balls & sticks

			and function of proteins carbohydrates, lipids, nucleic acids; Enzymes- types, properties, enzyme action.		
			Chapter-10: Cell Cycle and Cell Division Cell cycle, mitosis, meiosis and their significance	B4 Mitosis in onion root tip cells and animal cells (grasshopper) from permanent slides.	
Sep	12		Revision & Examination		
Oct	16	**Unit-V Human Physiology**	**Chapter-17: Breathing and Exchange of Gases** Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders. **Chapter-13: Photosynthesis in Higher Plants** Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis.	A5 Study of distribution of stomata with upper and lower surface of leaves	
Nov	17	**Unit-V Human Physiology**	**Chapter-18: Body Fluids and Circulation** Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human	A8 Separation of plant pigments through paper chromatography.	

			heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure. **Chapter-14: Respiration in Plants** Exchange of gases; cellular respiration, glycolysis fermentation (anaerobic) TCA cycle & electron transport system (aerobic) energy relations- number of ATP molcecules generator, amphbibolic pathway, respiratory quotient.	A9 Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.	
Dec	22		**Chapter-19: Excretory Products and their Elimination** Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi nephritis; dialysis and artificial kidney, kidney transplant **Chapter-15: Plant-Growth and Development** Seed germination, phases of plant growth and plant growth rate, condition for growth, differentiation, dedifferentiation, redifferentiation, sequence of developmental processes in a plant cell, plant Growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.	Test for presence of sugar in urine. Test for presence of albumin in urine.	Activity: Draw a concept map on endocrine glands

Month	Date	Unit	Content		Activity
Jan	19	**Unit-V Human Physiology**	**Chapter-20: Locomotion and Movement** Types of movement, Cilliary, flagellar, muscular, skeletal, muscle, contractile protein and muscle contraction, skeletal system and its function; joints, disorder of muscular and skeletal system-myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis gout. **Chapter-21: Neural Control and Coordination** Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse.	B6 Human skeleton and different types of joints with the help of virtual image/model only.	Activity : Make a info-graphic poster related to occupational hazards (any one)
Feb	07		**Chapter-22: Chemical Coordination and Integration** Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease. **Note:** Diseases related to all the human physiological systems to be taught in brief.		Activity : Paper presentation on any one hormonal disorder.

SUBJECT: <u>Information Practice (065)</u>

Textbook :   1. TEXT BOOK NCERT
    2. Informatics Practices with Python by Preeti Arora

Month	WD	Chapter/Sub-Topics	Key Terms and Concept	Art Integration	Project / Practical	Research Work Blended earning
JUNE	21	**UNIT 1: Introduction to Computer System:** • Introduction to Computing, evolution of computer devices, components of a computer system and their interconnection, input/output devices ●Computer Memory: Units of memory, types of memory primary and secondary, data deletion, its recovery and related security concerns. • Software: purpose and types – system and application software, generic and specific purpose software	• Computer evolution • Computer devices • Computer memory • Software and its types	Make a project using waste computer device.	Identifying various components of Computer. Students will check the hardware specification of their devices and check the performance of device.	To impart knowledge and information regarding fundamental concept of Computer.
JULY	25	**UNIT 2: Introduction to Python** • Basics of Python programming, execution modes: - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operator, precedence of operators, data types, mutable and immutable data types, statements, expression evaluation. comments, input and output statements, data type conversion, debugging. • Control Statements: if-else, if-elif-else, while loop, for loop • Lists: list operations- creating, initializing, traversing and manipulating lists, list methods and built-in functions - len(), list(), append(), insert(), count(), index(),remove(), pop(), reverse(), sort(), min(), max(), sum()	• Python introduction • Keywords and operators • Conditional statements • Iterative statements • List	Make a maze puzzle which follows the flow of control and there will be one way to reach on center of the maze.	Identify program writing concepts, learn syntax to write python program	Clarity of Concept through thought-provoking quizzing, critical thinking, logical reasoning, comprehending, high order thinking, assertion and reasoning, case- based, oral drilling etc.
AUG	23	**UNIT 2: Introduction to Python (Cntd.)** • Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions – dict(), len(),	• Dictionary • Functions of dictionary	-	• Identify program writing concepts, learn syntax to write python program • Assignment based on functions of dictionary	Students will understand about programming language and how to write it. Students will understand how to use dictionary functions to write a program.

		keys(), values(), items(), update(), del, clear()				
SEPT	5+7=12	Revision				
OCT	16	**Unit 3: Database concepts and the Structured Query Language** • Database Concepts: Introduction to database concepts and its need, Database Management System. • Relational data model: Concept of domain, tuple, relation, candidate key, primary key, alternate key Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language, • Introduction to MySQL, creating a database using MySQL, Data Types	• Introduction • Need and importance of DBMS • Keys of DBMS • Types of DBMS • MySQL	Prepare a project report on how student data is maintained in school.	• Identify concepts of writing query • Assignment based on various types of query	Students will understand about database and how to write query. Students will understand how the database work does, how data gets saved and retrieved.
NOV	17	**Unit 3: Database concepts and the Structured Query Language (Cntd.)** • Data Definition: CREATE DATABASE, CREATE TABLE, DROP, ALTER • Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL • Data Manipulation: INSERT, DELETE, UPDATE	• Introduction of DDL and DML	-	• Identify concepts of writing query • Assignment based on various types of query	Students will understand about database and how to write query. Students will understand how the database work does, how data gets saved and retrieved.
DEC	22	**Unit 4: Introduction to the Emerging Trends** • Artificial Intelligence, Machine Learning, Natural Language Processing • Immersive experience (AR, VR), Robotics, Big data and its characteristics • Internet of Things (IoT), Sensors, Smart cities • Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.	• Introduction of AI and NLP • IoT • Cloud computing	Make a project using some AI tools.	• Identify concepts of AI • New technologies to be explored	Students will understand about new technologies. How does the robots work and built.
JAN	19	Revision				
FEB	7	Revision Classes				

SUBJECT: ECONOMICS

Text Book : 1, NCERT 2.V.K GLOBAL 3. SANDEEP GARG

Month	WD	Chapter/Sub-Topics	Key Terms and Concept	Art Integration	Project / Practical	Research Work Blended Learning
June	21	**PART A Statistics for Economics** . Unit 1: Introduction What is Economics? Meaning, scope, functions and importance of statistics in Economics Part B: Introductory Microeconomics Unit 4: Introduction Meaning of microeconomics and macroeconomics; positive and normative economics What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost,	scarce resources production, consumption, and distribution collecting, analyzing, and interpreting households and firms, including inflation, unemployment, and economic growth	Create infographics: Infographics are a great way to visually represent economic concepts, Students can create infographics on topics such as the production possibility frontier, opportunity cost, or the central problems of an economy, They can use images and graphics to make these concepts more accessible and engaging, Artistic representation of economic concepts: Students can create artwork that represents economic concepts, For example, they can create a painting that represents the idea of opportunity cost or a sculpture that represents the production possibility frontier, This can be a creative way to engage students and help them understand the concepts better,	Draw a diagram and graphical presentation of PPC	This research could delve into the different ways in which micro and macroeconomic approaches to resource allocation decisions consider the concept of opportunity cost, The study could analyze how microeconomic principles focus on individual decision-making processes, considering the trade-offs involved in the allocation of limited resources for individual consumers, firms, or markets, On the other hand, macroeconomic principles address resource allocation decisions on a broader scale, analyzing the aggregate effects of decisions made by governments, institutions, and the global economy,
July	25	**Unit 2: Collection, Organization and Presentation of data** Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation, Organisation of Data: Meaning and types of variables; Frequency Distribution, 3 Presentation of Data: Tabular Presentation	Collection,Organi sation,presentatio n,Census of India,NSSO Geometric forms (bar diagrams and pie diagrams), Frequency diagrams (histogram, polygon and Ogive) ,Arithmetic line graphs (time series graph),	Artistic data collection: students to collect data in an artistic way, such as through sketches or paintings, For example, they can observe their surroundings and draw the different types of vehicles they see on the road, This activity will help them understand the concept of primary data collection and sampling, Data mapping: students to create a map of their school or neighborhood and plot the different types of businesses and shops they see, This activity will help them understand the concept of secondary data collection and the importance of data organization, Collaborative Graphing: You can divide your class into groups and ask them to	Make a project on NSSO and Census	The research is expected to reveal the most accurate and efficient sampling method for collecting data in market research, Additionally, the study will provide insights into the importance of sample size, sample selection, and data collection methods in market research

		and Diagrammatic Presentation of Data: (i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series graph),		create different types of graphs, such as bar diagrams, pie diagrams, or frequency histograms, Once each group has created their graph, they can collaborate to compare and contrast their results, This activity will help them understand the concept of data presentation		
Aug	23	Unit 5: Consumer's Equilibrium and Demand Consumer's equilibrium - meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis, Indifference curve analysis of consumer's equilibrium-the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map)	Utility, Marginal Utility, Budget Set, Budget line, Indifference Curve, indifference map	Art History Project: Students can create an art history project by studying different art movements, styles, and artists from different time periods, They can create a timeline or a visual representation of their research using various art forms, such as painting, sculpture, photography, or digital media, Art and Math Project: Students can create an art and math project by exploring the relationship between art and math, They can use mathematical principles, such as symmetry, patterns, and geometry, to create their own artwork or analyze the artwork of others,	Make a project on consumer,s utility and marginal utility with two commodities	How do changes in income affect the consumer's equilibrium level of consumption and the demand for different goods? How do changes in the price of one good affect the demand for that good and the demand for other goods? How do income and substitution effects interact in determining the consumer's response to a change in the price of a good? How does the shape of the indifference curves affect the consumer's equilibrium, and how does this vary across different types of goods? How do different assumptions about consumer preferences, such as the presence of complementarity or substitutability between goods, affect the results of the analysis?
Sept	12	conditions of consumer's equilibrium, Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method and total expenditure method, REVISION FOR THE TERM -I	Demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand			

		EXAMINATION			
Oct	16	Unit 3: Statistical Tools and Interpretation Measures of Central Tendency- Arithmetic mean, median and mode Correlation – meaning and properties, scatter diagram;,	Mean,Median,Mode,Measures of Central Tendency	Use movement and music to illustrate how measures of central tendency and correlation work, student can create a dance or theatrical performance that shows how the mean, median, and mode can be used to analyze data, For example, you can create a dance performance that uses different movements to represent the different measures of central tendency,	Make a project on a chart paper regarding scattered diagram	N,A,
Nov	17	Measures of correlation - Karl Pearson's method (two variables ungrouped data) Spearman's rank correlation, Introduction to Index Numbers - meaning, types - wholesale price index, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers	Index Numbers - meaning, types - wholesale price index, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers		Make a project on Karl's Pearson's method	N,A,
Dec	22	Unit 6: Producer Behaviour and Supply Forms of Market and Price Determination under Perfect Competition with simple applications, Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply, Simple Applications of Demand and Supply: Price ceiling, price floor, supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change	Demand and Supply: Price ceiling, price floor, supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply;	To illustrate the concept of market equilibrium and the effects of shifts in demand and supply, the artist could create a series of before-and-after images that show how changes in consumer demand or production costs can impact the market price and quantity of a good or service, For example, one image could show a crowded farmers' market with high prices due to a shortage of fresh produce, while another image could show the same market with lower prices and more abundant produce after a successful harvest,	Make a project on price determination under perfect competition	To analyze the producer behavior and supply in a particular market that operates under perfect competition, You could gather data on the market, such as the number of firms, the level of competition, and the production costs of the firms, Using this data, you could analyze the behavior of producers in the market and how they respond to changes in demand and supply

		method,			
Jan	19	Unit 7: Forms of Market and Price Determination under Perfect Competition with simple applications, Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply, Simple Applications of Demand and Supply: Price ceiling, price floor,	Determination of market equilibrium and effects of shifts in demand and supply, Simple Applications of Demand and Supply: Price ceiling, price floor,	Forms of Market and Price Determination under Perfect Competition with simple applications, Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply, Simple Applications of Demand and Supply: Price ceiling, price floor,	Market Equilibrium Analysis: Conduct a study on the determination of market equilibrium under perfect competition using real-life examples, You can select any product, for example, mobile phones, and collect data on its demand and supply, and analyze the equilibrium price and quantity in the market, Effects of Shifts in Demand and Supply: Investigate the effects of shifts in demand and supply on the equilibrium price and quantity in a perfectly competitive market, You can choose any product and analyze the market behaviour in response to changes in consumer income, population, technology, and other factors,
Feb	07				

SUBJECT : ACCOUNTANCY

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

2. DOUBLE ENTRY BOOK KEEPING (T.S. Grewal)

Month	WD	Chapter/Sub-Topics	Key Terms and Concept	Art Integration	Project / Practical	Research Work Blended Learning
April	23					
May	10					
June	21	**Introduction to Accounting** Accounting: concept; objectives, advantages, and limitations. Types of accounting information Users of accounting information Qualitative characteristics of accounting information Role of accounting in business. **Basic Accounting Terms** Transactions; Capital; Drawings; Assets (Types of assets); Liabilities (Types of liabilities); Expenditure(Types of expenditures); Income ; Profit ; gain; loss; purchase; sale; debtors; creditors; discount (Types); stock (Types) and other terms. **Theory base of accounting** Meaning and nature of accounting principles Features of accounting principles Importance of accounting principles Fundamental accounting assumptions: Business entity; Money measurement; Going concern; Accounting period; cost concept; Dual aspect; Revenue recognition; Matching; Full disclosure; consistency; conservatism; Materiality; objectivity etc. Basis of accounting: Cash and accrual Accounting standards: Concept; Objectives; International Financial Reporting System (IFRS) and Indian Accounting	Accounting Bookkeeping Accountancy Accounting cycle Recording Classifying Summarizing Interpreting Analyzing Attributes of accounting information Events Transactions Drawing Liabilities (current, on-current, outside,) Assets(current, fixed, tangible, intangible, fictitious) Trade receivable Trade parables Inventory Insolvent Goods Vouchers Expenses (capital & revenue) Accounting conventions Accounting concepts Business entity; Money measurement; Going concern; Accounting period; cost concept; Dual aspect; Revenue recognition; Matching; Full disclosure; consistency; conservatism; Materiality. Accounting standards IFRS	**Integrated with** Painting and Sketch Poster of users of accounting information, types of Assets & Liabilities & Principles of Accounting.	Project on accounting principle	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link of accounting principles followed to maintain the books of accounts.

		Standards (IAS)				
July	25	**Accounting Equation** Meaning Rules for accounting equation Process of preparing accounting equation Numerical problems Meaning of an account Meaning of debit and credit Rules of debit and credit: Modern approach and traditional approach **Accounting procedures** Source documents Meaning of voucher Types of vouchers Preparation of vouchers (Numerical) **Journal** Meaning of Journal Characteristics and advantages Limitations Passing of journal entries (Numerical **Ledger** Meaning of ledger Features Importance Preparation of ledger accounts (Numerical) Balancing of ledger	Double entry system Natural personal account Artificial personal account Representative personal account Real account Nominal account Modern approach Traditional approach Cash memo Invoice/bill Receipts Debit note Credit note Pay-in-slip. Cheques Cash Vouchers Noncash vouchers Transfer vouchers Books of original entry Rules of journalizing Ledger folio Trade discount Cash discount Compound journal Simple journal Opening entry Special entry	**Integrated with** Painting and Sketch Poster of source document prepared by the business, Golden rules & modern rules of journal of journal.	Project on a Public Ltd. Regarding their source documents.	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link of rules of journal, source documents, accounting equation etc.
Aug	23	**Trial Balance** Meaning of Trial Balance. Objectives Preparation pf T.B. (Numerical) **Cash Book** Meaning of cash book. Classification Objectives Features Types (Single column, double and triple column) Numerical problems of cash book Petty Cash book Numerical problems of	Special purpose subsidiary book Simple cash book Double column cash book (cash & bank, cash & discount, bank & dis.) Petty cash book (imprest & analytical) Contra entry Day book Journal proper.	**Integrated with** Painting and Sketch Poster of formats of single and double column cash book,	Project on trial balance prepared by any Public Ltd.	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link single, double and petty cash book, subsidiary book etc.

		petty cash book **Day books** Purchase daybook: Meaning and preparation of purchase book Sales daybook: Meaning and preparation of sales book Return Inward book: Meaning and preparation. Return outward book: Meaning and preparation. Journal proper: Meaning and preparation.				
Sept	12	**Bank Reconciliation Statement** Meaning Objectives Methods of preparing BRS Preparation of BRS (Numerical) Preparation of adjusted. cash book BRS. (Numerical) **Provision and Reserves** Concept of provision Importance of provision Concept of reserve Types of reserves: Revenue reserve, capital reserve and secret reserve Difference of provision and reserve	Cash book Passbook Bank statement Favorable balance Unfavorable balance Overdraft balance Amended cash book. Legal rights Reserve Provision Revenue reserve Capital reserve. Specific reserve General reserve Secrete reserve. Investment fluctuation reserve Workmen compensation reserve Debenture redemption reserve Dividend equalization reserve	**Integrated with** Painting and Sketch Poster of different types of reserve maintain by the company.	Project on provision and reserve maintain by any Public Ltd. & Collect bank statement and copy of cash book of any company and prepare BRS statements	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link different types of reserve maintain by the company.
Oct	16	**Depreciation** Meaning Causes of depreciation Objectives of depreciation Depreciation, amortization and depletion concept Methods of depreciation: Straight line and Reducing balance Provision for depreciation account Assets disposal account. Numerical problems	Obsolescence Depletion Scrap value Useful life of assets Cost of assets Straight line method WDV method Provision for depreciation Assets disposal account	**Integrated with** Painting and Sketch Poster of different types of methods used to maintain the depreciation by the company & different methods used to calculate the depreciation.	Collect information about the methods of depreciation used by the limited co. from financial statement of company	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding the methods of depreciation, calculation of depreciation and its need.
Nov	17	**Financial statements of sole**	Financial statement Trading account	**Integrated with** Painting and	Project on a Public Ltd.	**Face to face interaction through**

		proprietorship Meaning Objectives Preparation of Trading Account Preparation of Profit and loss account Preparation of Balance sheet Preparation of final account without adjustment Preparation of final account with adjustment Marshalling of assets and liabilities	Profit & loss account Gross profit Net profit Operating profit direct expanses, direct income, indirect expanses/income Grouping & marshalling of assets & liabilities COGS Accrued income. Unearned income Deferred revenue expenditure	Sketch Poster of different types of income and expenditure recorded in trading and profit & loss account, types of assets and liabilities recorded in balance sheet.	Regarding their final account	**digital learning like** educational video/ documentary/YouTube link regarding the different types of income and expenditure recorded in trading and profit & loss account, types of assets and liabilities recorded in balance sheet.
Dec	22	**Rectification of errors** Classification of errors Errors do not affect the Trial Balance Passing the journal entries before preparation of T. B and after preparation of T.B. Concept of suspense and preparation of suspense account. And **Revision**	Two sided errors One sided error Suspense account Error of omission Error of commission Error of principle Error of posting	**Integrated with** Painting and Sketch Poster of different types of errors.		**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding the different types of errors.
Jan	19	Revision				
Feb	07					

SUBJECT: BUSINESS STUDIES

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

           2. V.K Publication

Month	WD	Chapter/Sub-Topics	Key Terms and Concept	Art Integration	Project / Practical	Research Work Blended Learning
April	23					
May	10					
June	21	**PART- A Foundation of Business Nature and Purpose of business** ⬜ Modern Concept of business. ⬜ Characteristics ⬜ Comparison of business, profession and employment ⬜ Classification of business activities: Industry, Commerce, Trade and auxiliaries to trade ⬜ Objectives of Business ⬜ Business risk ⬜ Nature of business risk ⬜ Causes of business risk **Forms of Business Organization** ⬜ Introduction ⬜ Sole proprietorship ⬜ Features, merits, and demerits ⬜ Join Hindu family business ⬜ Features, merits and demerits ⬜ Partnership ⬜ Features, merits and demerits, Types of partners ⬜ Types of partnership ⬜ Partnership deed: Registration and consequences of nonregistration ⬜ Co-operative societies ⬜ Features, merits and demerits, Types of Co operatives ⬜ Joint Stock Company ⬜ Features of Jon Stock Companies ⬜ Types of companies ⬜ Distinguish between private and public companies ⬜ Choice of form of business Organisation	Business Profession Employment Business activities Commerce & trade Import & export. Business risk Sole proprietorship Minor as partner. Partnership deed Active partner. Sleeping partner. Dormant partner. Nominal partner. LLP HUF Co-operative Organisation Public co. Private co. Promotion Incorporation MOA AOA	**Integrated with** Painting and Sketch Poster of different types of partners in a partnership firm.	Project on form of business Organisation.	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding the different types of partners in a partnership firm, form of business Organisation.
July	25	**Private, Public and Global enterprises** ⬜ Introduction	Private sector Public sector Departmental	**Integrated with** Painting and Sketch Poster of	Project on form of public, global	**Face to face interaction through digital learning like** educational video/

Private and public sector Forms of public sector Departmental undertaking: Meaning, Features, merits and demerit Statutory Corporation: Meaning, Features, merits and demerit Government Company: Meaning, Features, merits and demerit Global enterprises: Meaning, Features, merits and demerit **Business Services** Comparison of public sectors Nature of services Types of services Differences between goods and services Banking: Types of Banks. Functions of commercial bank E- banking: Benefits Insurances: Fundamental principles of insurance Types of insurance Life insurance: Types Fire insurance Marine Insurance: Types Differences between life, fire and marine. insurance Communication services Postal services, Telecom services Warehousing: Meaning, Types, Functions.	undertakings statutory/public corporations. government companies. joint sector. MNCs PPP Joint venture E- Banking Insurance & assurance Principle of life insurance Marine insurance General insurance Traditional mode of comm. Fax Internet E-Mail	different form of private, public & global enterprises.	& private sectors enterprise & causes of business risk.	documentary/YouTube link regarding the different types of public, private & global enterprises, different types of insurance.
Emerging modes of Business Give the meaning of e-business. Discuss the scope of e-business. Appreciate the benefits of e-business Distinguish e-business from traditional business. **Social Responsibilities of Business** Concept of social responsibilities Case of social responsibilities Responsibilities towards different groups Role of business in	Online transaction e-commerce Outsourcing of service business process outsourcing (BPO) knowledge process outsourcing (KPO) B2B Commerce B2C Commerce C2C Commerce social responsibilities Business & environment protection business ethics	**Integrated with** Painting and Sketch Poster on social responsibilities of business Organisation towards different groups.	Project on social responsibilities of business towards different groups.	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding the Online transactions & benefits of e-commerce & social responsibilities of business Organisation towards different groups.

The first row of the table above is preceded in the left margin by month/week columns which are blank for the first row; the second row shows "Aug" and "23".

		environment ⬜ Business ethics concept and elements				
Sept	12	**PART- B** **Sources of business finance** ⬜ Meaning, Features and significance of business finance ⬜ Classification of sources of funds ⬜ Sources of finance ⬜ Retained Earnings: Features, merits, and demerits ⬜ Trade credit: Features, merits, and demerits ⬜ Factoring: Features, merits, and demerits ⬜ Commercial paper: Features, merits, and demerits ⬜ Equity shares: Features, merits, and demerits ⬜ Debentures: Features, merits, and demerits	MOA AOA PROSPECTUS Name clause. Situation clause Objective clause Liabilities clause Capital clause. Association & subscription clause Issue & allotment of shares. Share certificates. Minimum subscription Calls on shares. Dividend on shares Underwriter Preliminary expenses Promotors Auditors business finance equity shares preference shares Debentures retained earnings. public deposits GDRs ADRs IDRs	**Integrated with** Painting and Sketch Poster on different sources of business finance, its merit & demerits.	Project on a Public Ltd. Regarding source of finance.	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding the finance collect by a company through different sources of finance.
Oct	16	**Small Business** ⬜ Meaning of small business ⬜ Nature of small business ⬜ Role of small business in India ⬜ Problems of small business ⬜ Government assistance to small Industries and small units ⬜ Institutional support for small business ⬜ Marketing support to MSME ⬜ What can be marketed?	small scale Organisation Entrepreneurship Intellectual property Intellectual property rights NSIC DIC NABARD RRB Patent Copyright Trademark	**Integrated with** Painting and Sketch Poster on Government assistance and special schemes for industries in rural, backward, and hilly areas.	Project on Government schemes for MSME	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding the Government assistance and special schemes for industries in rural, backward and hilly areas.
Nov	17	**Internal Trade** ⬜Wholesale trade: Concept and services ⬜Retail trade: concept and services ⬜Types of retail trade ⬜Itinerant Retailers ⬜Fixed shop retailers ⬜Departmental shop: Features, merits, and demerits ⬜Chain stores: Features, merits, and demerits	internal trade direct trade Indirect trade internal trade wholesale trade Retailers departmental stores. supermarket chain stores. GST CGST SGST IGST	**Integrated with** Painting and Sketch Poster on different types of internal trade.	Project on different types of wholesale & retail business.	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding the wholesale trade Retailers departmental stores. supermarket chain stores.

		□Mail order house: Features, merits, and demerits □Consumers co-operative store: Features, merits, and demerits □Supermarket: Features, merits, and demerits □Vending machine □Role of commerce and Industry association in promotion of internal trade	Cash memo. Invoice/bill. Receipts Debit note. Credit note. Pay-in-slip. international business.			GST CGST SGST IGST
Dec	22	**International Trade** □ Concept □ International business versus domestic business □ Scope of international business □ Benefits of international business □ Modes of entry into international business □Introduction □Export procedure □Import procedure □Foreign Trade promotion measures and scheme □Organizational support □IMF: Objectives and functions □WTO: Objectives and functions □World Bank: Functions & Project	Trade enquiry Import license. Foreign exchange Indent Letter of credit Shipment Document of title Clearing agent Railway receipts Octroi duty World Trade Organisation	**Integrated with** Painting and Sketch Poster on procedure of import and export and Economics.	Project on import and export procedure & functions of WTO.	**Face to face interaction through digital learning like** educational video/ documentary/YouTube link regarding functions of WTO
Jan	19	Revision				
Feb	07					

SUBJECT: PHYSICAL EDUCATION

Text Book: ESSENTIALS OF PHYSICAL EDUCATION
        By Dr. Loveleena Nadir and Dr. Anil Nadir
PUBLICATION: SULTAN CHAND

Month	WD / NOP	Chapter/ Sub-Topics	Learning Objectives	Key Terms and Concept	Art Integration	Inclusive Teaching	Project / Practical	Periodic Portion
June	21	**CH – 1** = **Changing Trends & Career in Physical Education** ●Concept, Aims & Objectives of Physical Education **Development of Physical Education in India** – Post Independence Career Options in Physical Education ●Changing Trends in Sports- playing surface, wearable gears and sports equipment, technological advancements ●Career Options in Physical Education ●Khelo-India and Fit-India Program	• To enable students to understand various aspect of development • To understand that people have different perspectives • To know the ways by which the students can arrive at common indicators of development. • To analyze development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	• Concept, aim & Objectives of Physical Education • Changing trends in Physical education. • Career options in physical education • Khelo-India and Fit-India.	Poster Making of various committees and fixtures.	MCQ practice	Practical in ground by touching different types of clay and sports equipment.	PT – I CH – 1,2
July	25	**CH – 2** = **Olympic Value Education** ● Olympism – Concept and Olympics Values (Excellence, Friendship & Respect)	• To enable students to understand various aspect of development • To understand that people have different perspectives • To know the ways by which the students can	• Ancient Olympics • Modern Olympics • Olympism • Olympic values • Olympics symbols • Olympics Movemen	• Making of Picture chart	MCQ practice	Practical by practice of Olympic activities.	

		Olympic Value Education- Joy of Effort, Fair Play, Respect for Others, Pursuit Of Excellence, Balance among body, Will & Mind **Ancient and Modern Olympics** ● Olympics - Symbols, Motto, Flag, Oath, and Anthem ● Olympic Movement Structure - IOC, NOC, IFS, Other members. __CH – 3__ = __Yoga__ ● Meaning & Importance of Yoga ● Introduction to Ashtanga Yoga ● Introduction to Yogic Kriyas (Shat Karma) Pranayama and its types Active life Style and stress management through yoga.	arrive at common indicators of development. ● To analyze development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	t				
Aug	23	__CH – 4__ = __Physical Education & Sports for CWSN (Children with Special Needs - Divyang)__ ● Concept of Disability and Disorder ● Types of Disability, its causes & nature (Intellectual	● To enable students to understand various aspect of development ● To understand that people have different perspectives ● To know the ways by which the students can arrive at common indicators of development. ● To analyze	• Disability • Disorder • Types of disability & disorder • Adaptive physical education • Role of various professionals	Making of Picture chart	MCQ practice	Practice of physical activities according to the need of CWSN.	PT – II CH – 3,4,5

Sept	12	disability, Physical disability) Disability Etiquettes ● Aim & Objective of Adaptive Physical Education ● Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator) **CH – 5 = Physical Fitness, Health and Wellness** ● Meaning and Importance of Wellness, Health and Physical Fitness ●Components/Dimensions of Wellness, Health and Physical Fitness ● Traditional Sports & Regional Games for promoting wellness Leadership through physical activity and sports Introduction of First- Aid - PRICE	development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	• Wellness • Health & Physical fitness • Dimensions • Traditional Sports & Regional games.			Practice of traditional sports & regional games.	
Sept	12	**CH – 6 =**	• To enable students to understand	• Test, Measurement &	Making of Picture	MCQ practice	Practice of test, measurement	PT – III

Month	No	Topic	Objectives	Content	Activity	Assessment	Learning Outcome	
		Test, Measurement & Evaluation ● Define Test, Measurement & Evaluation ● Importance of Test Measurement & Evaluation in Sports. Classification of test in physical education and sports ● Test, administration guidelines in physical education and sports BMI, Waist Hip Ratio, Skinfold measures	various aspect of development • To understand that people have different perspectives • To know the ways by which the students can arrive at common indicators of development. • To analyze development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	Evaluation in Physical Education • Classification of test • Test administration guidelines in physical education	chart		& evaluation through activities.	CH- 6,7
Oct	16	**CH – 7 Fundamentals of Anatomy, Physiology in Sports** ● Definition and Importance of Anatomy and Physiology in exercise and sports ● Functions of Skeletal system, classification of bone and types of joints. Properties and Functions of Muscles. ● Function and Structure of Circulatory system and heart. ● Function and Structure of Respiratory system.	• To enable students to understand various aspect of development • To understand that people have different perspectives • To know the ways by which the students can arrive at common indicators of development. • To analyze development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	• Definition and importance of Anatomy and Physiology in sports • Functions of skeletal system • Classification of bones and types of joints, • Circulatory system • Respiratory system	Making of Picture chart	MCQ practice	Knowledge of Anatomy, Physiology in sports through practice of exercises and physical activities.	
Nov	17	**CH - 8 = Fundamentals**	• To enable students to	• Kinesiology and	Making of	MCQ practice	Knowledge of Kinesiology	PT – IV

Month	Date	Topic	Learning Objectives	Subtopics	TLM	Assessment	Learning Outcome	Reference
		of Kinesiology and Biomechanics in Sports ● Definition and Importance of Kinesiology and Biomechanics in sports ● Principles of Biomechanics ● Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation ● Axis and Planes – Concept and its application in body movements	understand various aspect of development • To understand that people have different perspectives • To know the ways by which the students can arrive at common indicators of development. • To analyze development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	Biomechanics • Types of body movements • Axis and Planes	Picture chart		and biomechanics in sports through practice of exercises and physical activities.	CH – 8,9,10
Dec	22	**CH – 9 = Psychology & Sports** ● Definition & Importance of Psychology in Physical Education & Sports Developmental Characteristics at Different Stages of Development. ● Adolescent Problems & Their Management ● Team Cohesion and Sports Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness.	• To enable students to understand various aspect of development. • To understand that people have different perspectives. • To know the ways by which the students can arrive at common indicators of development. • To analyze development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	• Definition & importance of Psychology • Adolescent problems • Team cohesion	Making of Picture chart	MCQ practice	Practical through knowledge of behaviors and mental status.	PT – IV CH – 8,9,10

Jan	19	**CH – 10 =** **Training and Doping in Sports** ● Concept and Principles of Sports Training ● Training Load: Over Load, Adaptation, and Recovery Warming-up & Limbering Down – Types, Method Importance. Concept of Skill, Techniques & Strategies ● Concept of Doping and its disadvantages	• To enable students to understand various aspect of development • To understand that people have different perspectives • To know the ways by which the students can arrive at common indicators of development. • To analyze development using quantitative and qualitative indicators to enable better understanding of the theme discussed by learning the learners closer to the real-life situation.	•Principles of sports training •Training load •Doping	Making of Picture chart	MCQ practice	Practical of training load through practice physical activities.	PT – IV CH – 8,9,10
Feb	07	REVISIONS & CHAPTERWISE TEST						

SUBJECT : PAINTING/GRAPHICS

Text Book : History of Indian Art Part 1 (NCERT)

Month	W.D.	Chapter/Sub-Topics	Key Terms and Concept	Art Integration	Project / Practical	Research Work Blended earning
APRIL						
MAY						
JUNE	21	Theory; Chapter -1 Pre historic rock painting Chapter 2 Art of Indus Valley	Bhimbetka Roaring animal Wizard dance	In maths in various topics as trigonometry, mensuration	Minimum 2 still life or Object has to be done	To learn our cultural heritage
		Theory; Chapter -1 Pre historic rock painting Chapter 2 Art of Indus Valley				
		Practical- Still life/Object drawing and pencil shading				
		Practical- Still life/Object drawing and pencil shading				
JULY	25	Theory chapter -2 Introduction to Indus valley	Dancing girl Mother goddess Bull seal Harappa and Mohenjo-Daro	Shapes and mensuration maths	Minimum 2 still life or Object has to be done in coloured with water colour	To learn our cultural heritage
		Theory chapter -2 Introduction to Indus valley				
		Practical- Still life/Object drawing and pencil shading Water color composition				
		Practical- Still life/Object drawing and pencil shading Water color composition				
AUG	23	Theory; Chapter- 3 Buddhist, jain and indus	Lion capital Chauri bearer Bodhisattva head Buddha from katra Seated Buddha of sarnath Jain tirthankara	Shapes and mensuration maths	Minimum 2 flower has to be done in pencil shading or Charcoal	To learn our cultural heritage
		Theory; Chapter- 3 Buddhist, jain and hindus				
		Practical- Still life/Object drawing and pencil shading Water color composition				
		Practical- Still life/Object drawing and pencil shading Water color composition				
SEPT	12	Theory; Chapter -4	Padmapani			

		introduction to Ajanta	Bhodhisattva Mara vijay	Shapes and mensuration maths	Minimum 2 flower has to be done in water colour	To learn our cultural heritage
		Theory; Chapter -4 introduction to Ajanta				
		Practical- Still life/Object drawing and pencil shading Water color composition				
		Practical- Still life/Object drawing and pencil shading Water color composition				
OCT	16	Chapter 6 Indian Bronze sculpture	Descent of ganga Ravana shaking mount Kailash Trimurti Laxmi narayan Mother and child	Shapes and mensuration maths	Make a project file on Mughal miniature art Minimum 4 compositi	To learn our cultural heritage
		Chapter 6 Indian Bronze sculpture				
		Practical- Still life/Object drawing and pencil shading Water color composition				
		Practical- Still life/Object drawing and pencil shading Water color composition				
NOV	17	Artistic aspects of the Indo Islamic Architecture	Method of casting Natraja Devi (uma)	Shapes and mensuration maths	Make a project file on Mughal miniature art Minimum 4 compositi	To learn our cultural heritage
		Artistic aspects of the Indo Islamic Architecture				
		Practical- Still life/Object drawing and pencil shading				
		Practical- Still life/Object drawing and pencil shading				
DEC	22					
JAN	19					
FEB	7					

SUBJECT: GENERAL STUDIES
SUBJECT TEACHER: SANCHITA LAHA
Textbook: 1. N.C.E.R.T
 2.

Month	WD / NOP	Chapter/Sub-Topics	Learning Objectives	Key Terms and Concept	Art Integration	Inclusive Teaching	Project / Practical
June	15	• SCIENCE AND TECHNOLOGY	• To highlight Science as a necessary part of our everyday life. • To explore emerging technologies. • To analyze the impact of science and emerging technologies on our lives.	I Application of Science in everyday life Identifying role of science in daily activities e.g. cooking, communication, transportation etc. Improving life through knowledge of science II Emerging technologies III Science and Technology in the social context Science: discussion on use & abuse Uses and misuses of technology (in healthcare, agriculture, warfare, changing lifestyle etc.) Assistive technology for the differently abled	debate on the pros and cons of using social media, or on any other related topic	cyber safety day	solar panels, rainwater harvesting, e-waste manageme nt,
July	25	CURRENT TRENDS IN SOCIO-ECONOMIC STRUCTURE	To acquaint the students with the basic and distinctive features of the society they live in. To enable the students to understand different types of social institutions of their society. To understand the functions and significance of different social institutions of Indian society.	I. Meaning and importance of society and social structure/s. II. Distinctive features of Indian society III. Social institutions of Indian society Family and marriage Religion Economy Politics IV. Unity in diversity V. Continuity and change in Indian society	prepare a questionnaire containing 5-7 questions, collect data and analyze the findings by seeking opinion from different people of various age groups on different social institutions.	explore the relations hip between economi c status and occupati on.	present a glimpse of Indian culture by preparing scrapbooks , collecting photograph s or making PowerPoin t presentatio ns.
Aug	23	NATION BUILDING	To identify the available natural	Meaning and importance of national integration	make presentations	design a plan to	study their

			resources. create awareness about factors causing the depletion of natural resources. discuss the implications of the rising world population. To outline the importance of and need for conserving and promoting ecological balance. To inspire students to adopt an environment friendly lifestyle.	III. Understanding sustainable development IV. Strategies for environmental conservation	on initiatives and conservation movements made by individuals and organizations.	keep the school premises clean and save paper/pa per/elect ricity.	surroundi ngs, enlist local species and learn more about them.
Sep	12	PROMOTING GLOBAL UNDERSTANDIN G	To discuss the meaning and importance of national integration. appreciate how the national movement against British rule helped in national integration. To identify the challenges to national integration in our country. To appreciate the concept of secularism in the Indian context.	I. Understanding the meaning and importance of International integration Unified socio-economic, political structure and feeling of oneness on the basis of common history, society, values and culture Integration - fusion of norms and cultures- sharing of values II. Role of international movement in inrernational integration Freedom struggle awakening of national feeling among masses IV. Challenges to inernational integration Forces causing a divide among the people of the nation Casteism Communalism	collect passages/quo tes with universal messages from world literature.	write creative slogans on the themes that unite people of different commu nities, for example , music, cricket, etc.	read selected biographie s of great leaders and organize book discussions .
Oct	16	WORKFORCE EDUCATION SKILLS	To acquaint the students with the need, scope and importance of international understanding.	I. Meaning of internationalism and international understanding. Perspective on global citizenship II. Need,	Reading of the selected material, for example, "Education for	prepare a presenta tion for the class on	discuss how advances in technology have

				scope, dimensions and basic principles of international understanding III. International organizations and forums working for mutual cooperation and international understanding IV. Place and role of human rights in international understanding V. Peace conventions, international cooperation on environment and climate change	International Understanding" by Reuben R. Palm, United Nations brochure on peace keeping.	issues concerning women, children, elderly and persons with special needs in contemporary times.	changed the dynamics of international understanding
			To elaborate the structure, types and functions of different international organizations working for international harmony. To outline the importance of human rights with special reference to women and children. To create awareness about the importance of their rights and duties towards clean environment, peace and mutual cooperation. throw light upon how interdependence among countries has assumed added significance for the survival of humanity. To outline the importance of peace and economic cooperation.				
Nov	17	REVISION					
Dec	22	REVISION					
Jan	19	REVISION					
Feb	7	REVISION					

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