



CAMBRIDGE SCHOOL

Greater Noida

ANNUAL PLANNER (2024-25) CLASS XI

SUBJECT: ENGLISH (301)

Month	Unit/Book	Chapter	Topics
April	Introduction and Curriculum Overview Hornbill- Lesson 1	The Portrait of a Lady by Khushwant Singh (Hornbill) A Photograph by Shirley Toulson	i. The background knowledge of the author and his works would be given. ii. Difficult words and terms would be discussed. The prose will be explained. iii. All possible questions and answers would be discussed and assigned.
May	Creative Writing Skills Poetry:	Advertisement- Classified	i. Situation Vacant ii. Situation wanted i. Theme ii. Figures of Speech
July	Lesson — 1 (Snapshots) Lesson 2-(Hornbill)	The Summer of the Beautiful White Horse by William Saroyan We're not Afraid to Die by Gordon Cook & Alan East (Hornbill)	Analysis of Plot, setting Character Sketch Textbook questions Vocabulary Exercises. Competency based questions. Integrated Grammar
August	Hornbill and Snapshots Reading Skills	<ul style="list-style-type: none"> •Discovering Tut: the Saga Continues •The Laburnum Top (Poem) • The Voice of the Rain (Poem) Note Making and Summary	Read, comprehend, identify & relate to real life situation. Understand, Identify & relate to the various themes. Figures of Speech

September	Snapshots	The Address by Marga Minco Poem-Childhood Speech Writing Poster Making	Snapshots: Mother's Day Writing: Speech Grammar: Editing, Omission
October	Hornbill Snapshot	The Adventure The Tale of melon City. (Poem) Silk Road	Hornbill: Silk Road, The Adventure Writing: Advertisement Discussion on theme & value-based Qs Group Activity & Individual activity - Worksheets
November	Snapshot Grammar	Mother's Day Father to Son Birth	Prose/ Poem- analysis of characters, plot and setting. Dramatization. Writing Skills: Debate Writing Grammar: Integrated Grammar
December		Revision	

SUBJECT: PHYSICS (042)

TERM1(APRIL to SEPTEMBER)			
MONTH	UNIT	CHAPTERS	TOPICS
APRIL	Unit I: Physical World and Measurement	Chapter 2: Units and 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.
	Unit II: Kinematics	3. Motion in a straight line	Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion , uniform and non- uniform motion, and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment).
MAY	Unit II: Kinematics	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.
JULY	Unit III: Laws of Motion	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).
AUGUST	Unit IV: Work, Energy and Power	6. Work, Energy 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.
	Unit V: Motion of System of	7. Motion of System of Particles and	Centre of mass of a two-particle 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

	Particles and Rigid Body	Rigid Body	and its applications. 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 (no derivation).
UNIT TEST 1 Ch.1 : Physical World and Measurement Ch.2 : Motion in a Straight Line Ch. 3: Motion in a Plane			TERM 1 SYLLABUS Ch.2: Physical World and Measurement Ch.3: Motion in a Straight Line Ch.4: Motion in a Plane Ch.5: Laws of Motion Ch.6: Work, Energy and Power Ch.7: Motion of System of Particles and Rigid Body
EXPREIMENTS: 1. To measure diameter of a given wire and thickness of a given sheet using screw gauge. 6. To find the weight of a given body using parallelogram law of vectors. 9. To study the relationship between force of limiting friction and normal reaction and to find the co- efficient of friction between a block and a horizontal surface. 10.To find the downward force, along an inclined plane, acting on a roller due to gravitational pull of the earth and study its relationship with the angle of inclination θ by plotting graph between force and $\sin \theta$			ACTIVITIES: 1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm. 2. To determine mass of a given body using a metre scale by principle of moments. 5. To study the variation in range of a projectile with angle of projection.

TERM II (OCTOBER to MARCH)			
MONTH	UNIT	Chapter	TOPICS
OCTOBER	Unit VI: Gravitation	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 speed, orbital velocity of a satellite.
	Unit VII: Properties of Bulk Matter	9. Elasticity	Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy
NOVEMBER	Unit VII: Properties of Bulk Matter	10. Bulk properties of liquids	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 simple 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.

		11. Thermal properties of matter	Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; C_p , C_v - 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 .
DECEMBER	Unit X: Oscillations and Waves	14. Oscillations 15. Wave motion	Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) and its equations of motion; 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. 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.
JANUARY	Unit VIII: Thermodynamics Unit IX: Behavior of Perfect Gases and Kinetic Theory of Gases	12. Thermodynamics 13. Kinetic Theory of Gases:	Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: gaseous state of matter, change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes. 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.
UNIT 2:		Ch.8: Gravitation Ch. 9: Bulk Properties of Matter Ch. 10: Thermal Properties of Matter	
ANNUAL EXAM		Ch.2 to Ch. 15	
EXPERIMENTS: 1. To find the force constant of a helical spring by plotting a graph between load and extension. 2. To determine the surface tension of water by capillary rise method. 3. To determine the coefficient of viscosity of a given viscous		ACTIVITIES: 1. To observe change of state and plot a cooling curve for molten wax. 2. To observe and explain the effect of heating on a bi-metallic strip. 3. To note the change in level of liquid in a container on heating and interpret the observations. 4. To study the effect of detergent on surface tension of water by	

liquid by measuring terminal velocity of a given spherical body. 4. To study the relation between frequency and length of a given wire under constant tension using sonometer.	observing capillary rise. 5. To study the factors affecting the rate of loss of heat of a liquid. 6. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle. 7. To observe the decrease in pressure with increase in velocity of a fluid.
---	--

SUBJECT: CHEMISTRY (043)

Month	Unit	Chapter	Topics
April	Unit I	Some Basic Concepts of Chemistry	General Introduction: Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry.
May	Unit II Unit III	Structure of Atom Classification of Elements and Periodicity in Properties	Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells 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 and Hund's rule, electronic configuration of atoms, stability of half-filled and completely filled orbitals. Significance of classification, a brief history of the development of the periodic table, modern periodic law and the present form of the 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.
July	Unit IV	Chemical Bonding and Molecular Structure	Valence electrons, ionic bond, covalent bond, bond parameters, Lewis's 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 and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules (qualitative idea only), Hydrogen bond.
August	Unit VIII	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, applications of redox reactions.

		REVISION FOR FIRST TERM EXAM
UNIT TEST 1	Unit 1: Some Basic Concepts of Chemistry Unit 2: Structure of Atom	Term 1 Exam Syllabus Unit 1: Some Basic Concepts of Chemistry Unit 2: Structure of Atom Unit 3: Classification of Elements and Periodicity in Properties Unit 4: Chemical Bonding and Molecular Structure Unit 8: Redox Reactions

Term II			
Month	Unit	Chapter	Topics
October	Unit XII	Organic Chemistry -Some Basic Principles and Techniques	General introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyperconjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.
November	Unit XIII:	Hydrocarbons	Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, the structure of double bond (ethene), 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, the 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. Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of the functional group in monosubstituted benzene. Carcinogenicity and toxicity.

December	Unit VII	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, hydrolysis of salts (elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).
	Unit VI	Chemical Thermodynamics	Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH , Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. Second law of Thermodynamics (brief introduction) Introduction of entropy as a state function, Gibb's energy change for spontaneous and non- spontaneous processes, criteria for equilibrium. Third law of thermodynamics (brief introduction).
January			REVISION FOR TERM II EXAM
UNIT TEST 2	Unit 12: Organic Chemistry - Some Basic Principles and Techniques Unit 13. Hydrocarbons		TERM 2 EXAM SYLLABUS Unit 1: Some Basic Concepts of Chemistry Unit 2: Structure of Atom Unit 3: Classification of Elements and Periodicity in Properties Unit 4: Chemical Bonding and Molecular Structure Unit 6: Chemical Thermodynamics Unit 7: Equilibrium Unit 8: Redox Reactions Unit 12: Organic Chemistry -Some Basic Principles and Techniques Unit 13. Hydrocarbons
	Unit 13. Hydrocarbons		

SUBJECT: BIOLOGY (044)

TERM 1			
MONTH	UNIT	CHAPTER	TOPICS
APRIL	UNIT-I DIVERSITY OF LIVING ORGANISMS	CHAPTER-1: THE LIVING WORLD	Characteristics of living organism. Biodiversity in the living world. Need for classification. Taxonomic categories of life. Taxonomy and systematic. Binomial nomenclature. Tools for study of taxonomy-museums, zoological parks, herbaria, botanical gardens.
APRIL	UNIT-II STRUCTURAL ORGANIZATION IN PLANTS AND ANIMALS	CHAPTER-2: BIOLOGICAL CLASSIFICATION	Five kingdom classification. Salient features and classification of: Monera Protista Fungi Lichens, Viruses and Viroids.
		CHAPTER-3: PLANT KINGDOM	Salient features and classification of plants into major groups – Algae Bryophyta Pteridophyta Gymnospermae (three to five salient and distinguishing features and at least two examples of each category).
MAY		CHAPTER-4: ANIMAL KINGDOM	Salient features of the following phylum: Porifera Coelentrata Tinophora Platyhelminthes Nematodes Annelid Arthropoda Mollusca

			<p>Echinodermata Hemichordata Chordate Salient features of the following classes of chordate: Pisces Amphibians Reptilia Aves Mammalia</p>
JULY		CHAPTER-5: MORPHOLOGY OF FLOWERING PLANTS	<p>Morphology of root and its modifications. Morphology of stem and its modifications. Morphology of leaves and its modifications. The inflorescence. Flower, androecium, gynoecium, placentation, seeds, etc.</p>
JULY		CHAPTER-6: ANATOMY OF FLOWERING PLANTS	<p>Anatomy and functions of different parts of flowering plants: Root Stem Leaf Inflorescence Flower Fruit Seed Anatomy and functions of tissue systems in dicot and monocot root, stem and leaf.</p>
AUGUST		CHAPTER-7: STRUCTURAL ORGANISATION IN ANIMALS	<p>Morphology, Anatomy and functions of different systems: Digestive system of Frog Circulatory system Frog Respiratory system Frog Nervous system of Frog Male and female Reproductive system of frog.</p>
AUGUST	UNIT-III CELL: STRUCTURE AND FUNCTION	CHAPTER-8: CELL- THE UNIT OF LIFE	<p>Cell theory and cell as the basic unit of life. Structure of prokaryotic and eukaryotic cells. Cell envelope, cell membrane, cell wall. Different cell organelles: Cell organelles - structure and function; endomembrane system, endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids. Microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function).</p>

			Nucleus, nuclear membrane, chromatin, nucleolus.
AUGUST		CHAPTER-10: CELL CYCLE AND CELL DIVISION	Cell cycle Mitosis and its significance. Meiosis and its significance.
OCTOBER	UNIT-V HUMAN PHYSIOLOGY	CHAPTER-14: BREATHING AND EXCHANGE OF GASES	List all the respiratory organs in different animals. Describe the entire mechanism of breathing, exchange of gases, transport of gases and regulation of respiration. Make a flow chart of respiratory volume of human beings. State the cause and symptom of different disorders related to respiration - asthma, emphysema, occupational respiratory disorders.
OCTOBER		CHAPTER-15: BODY FLUIDS AND CIRCULATION	Composition of blood, blood groups, coagulation of blood. Composition of lymph and its function. Human circulatory system - Structure of human 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.
NOVEMBER		CHAPTER-16: 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 - uraemia, renal failure, renal calculi, nephritis. Dialysis and artificial kidney.
NOVEMBER		CHAPTER-17: LOCOMOTION AND MOVEMENT	Types of movement - ciliary, flagellar, muscular. Skeletal muscle-contractile proteins and muscle contraction. Human skeletal system. Disorders of muscular and skeletal system - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.
DECEMBER		CHAPTER-18: 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.
DECEMBER		CHAPTER-19: CHEMICAL	Endocrine glands and hormones. Human endocrine system - hypothalamus, pituitary, pineal, thyroid,

		COORDINATION AND INTEGRATION	parathyroid, adrenal, pancreas, gonads. Mechanism of hormone action. Hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease.
DECEMBER	UNIT-IV PLANT PHYSIOLOGY	CHAPTER-11: PHOTOSYNTHESIS IN HIGHER PLANTS	Photosynthesis as a mean of autotrophic nutrition, site of photosynthesis, pigments involved in photosynthesis. Photochemical and biosynthetic phases of photosynthesis. Cyclic and non cyclic photophosphorylation. Chemiosmotic hypothesis. Photorespiration. C3 and C4 pathways. Factors affecting photosynthesis.
JANUARY		CHAPTER-12: RESPIRATION IN PLANTS	Cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic). Energy relations - number of ATP molecules generated. Amphibolic pathways. Respiratory quotient.
JANUARY		CHAPTER-13: PLANT - GROWTH AND DEVELOPMENT	Seed germination; phases of plant growth and plant growth rate; conditions of growth. Differentiation, dedifferentiation and redifferentiation. Sequence of developmental processes in a plant cell. Growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.

SUBJECT: MATHEMATICS (041)

Month	Unit	Chapter	Topics
April	Sets	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. Difference of sets. Complement of a set. Properties of Complement.
May	1. Linear Inequalities	Linear Inequalities	Linear Inequalities: 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 method of finding a solution of system of linear inequalities in two variables
May	2. Relations and Functions	Relations and Functions	Relations & Functions: Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (up to $\mathbb{R} \times \mathbb{R} \times \mathbb{R}$). Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. 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. Sum, difference, product and quotients of functions.
July	Trigonometric Functions	Trigonometric Functions	Trigonometric Functions: Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin^2 x + \cos^2 x = 1$, 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 $\sin x$, $\sin y$, $\cos x$ & $\cos y$ and their simple applications. Deducing identities like the following: $\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}$,

			$\cot(x \pm y) = \cot x \cot y \mp 1 / \cot y \pm \cot x$, $\sin \alpha \pm \sin \beta = 2 \sin 1/2(\alpha \pm \beta) \cos 1/2(\alpha \mp \beta)$ $\cos \alpha + \cos \beta = 2 \cos 1/2(\alpha + \beta) \cos 1/2(\alpha - \beta)$ $\cos \alpha - \cos \beta = -2 \sin 1/2(\alpha + \beta) \sin 1/2(\alpha - \beta)$ Identities related to $\sin 2x$, $\cos 2x$, $\tan 2x$, $\sin 3x$, $\cos 3x$ and $\tan 3x$. General solution of trigonometric equations of the type $\sin y = \sin a$, $\cos y = \cos a$ and $\tan y = \tan a$.
August	1. Principle of Mathematical Induction 2. Complex Numbers and Quadratic Equations 3. Binomial Theorem	1. Principle of Mathematical Induction 2. Complex Numbers and Quadratic Equations 3. Binomial Theorem	Principle of Mathematical Induction: Process of the proof by induction, motivating the application of the method by looking at natural numbers as the least inductive subset of real numbers. The principle of mathematical induction and simple applications. Permutations and Combinations: Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of Formulae for ${}^n C_r$ and their connections, simple applications. Binomial Theorem: Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, General and middle term in binomial expansion, simple applications.
September	TERM 1 Examination		
TERM 2			
October	1. Sequence and Series 2. Straight Lines	1. Sequence and Series 2. Straight Lines	Sequence and Series: Sequence and 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. Formulae for the following special sums. Straight Lines: Brief recall of two-dimensional geometry from earlier classes. Shifting of origin. 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. Equation of family of lines passing through the point of intersection of two lines. Distance of a point from a line.

November	Conic Sections Introduction to Three-dimensional	1. Conic Sections 2. Introduction to Three-dimensional	Conic Sections: Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle. Introduction to Three-dimensional Geometry: Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points and section formula.
December	Statistics Probability	1. Statistics 2. Probability	Statistics: Measures of Dispersion: Range, mean deviation, variance and standard deviation of ungrouped/grouped data. Analysis of frequency distributions with equal means but different variances. Probability: Random experiments; outcomes, sample spaces (set representation). Events; occurrence of events, ‘not’, ‘and’ and ‘or’ events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of ‘not’, ‘and’ and ‘or’ events.
January	Limits and Derivatives	Limits and Derivatives	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 trigonometric, exponential and logarithmic functions. Definition of derivative relateit to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.

SUBJECT: INFORMATICS PRACTICES (065)

Month	Unit	Chapter	Topics
April & May	Unit 3: Database concepts and the Structured Query Language	Chapter 7 Database Concepts	<ul style="list-style-type: none"> • Introduction • File System • Database Management System • Relational Data Model • Keys in a Relational Database
April & May	Unit 3: Database concepts and the Structured Query Language	Chapter 8 Introduction to Structured Query Language (SQL)	<ul style="list-style-type: none"> • Introduction • Structured Query Language (SQL) • Data Types and Constraints in MySQL • SQL for Data Definition • SQL for Data Manipulation • SQL for Data Query • Data Updation and Deletion
April & May	Unit 3: Database concepts and the Structured Query Language	Chapter 5 Understanding Data	<ul style="list-style-type: none"> • Introduction to Data • Data Collection • Data Storage • Data Processing • Statistical Techniques for Data Processing
July	Unit 2: Introduction to Python	Chapter 3 Brief Overview of Python	<ul style="list-style-type: none"> • Introduction to Flow charts • Introduction to Python • Python Keywords • Identifiers • Variables • Data Types • Operators • Expressions • Input and Output • Debugging • Functions and its types • if..else Statements
August	Unit 2: Introduction to Python	Chapter 3 Brief Overview of Python	<ul style="list-style-type: none"> • for Loop • While Loop • Nested Loops

August	Unit 2: Introduction to Python	Chapter 4 Working with Lists and Dictionaries	<ul style="list-style-type: none"> • Introduction to List • List Operations • Traversing a List • List Methods and Built-in Functions • List Manipulation
September	Term I Assessment (Practical + Practical File + Viva+ Written)		
October	Unit 2: Introduction to Python	Chapter 4 Working with Lists and Dictionaries	<ul style="list-style-type: none"> • Introduction to Dictionaries • Traversing a Dictionary • Dictionary Methods and Built-in Functions • Manipulating Dictionaries
October	Unit 2: Introduction to Python	Chapter 6 Introduction to NumPy	<ul style="list-style-type: none"> • Introduction • Array • NumPy Array • Indexing and Slicing
November	Unit 2: Introduction to Python	Chapter 6 Introduction to NumPy	<ul style="list-style-type: none"> • Operations on Arrays • Concatenating Arrays • Reshaping Arrays • Splitting Arrays • Statistical Operations on Arrays • Introduction to CSV files
December	Unit 1: Introduction to Computer System	Chapter 1 Computer System	<ul style="list-style-type: none"> • Computer System • Introduction to Computer System • Evolution of Computer • Computer Memory • Software
January	Unit 4: Introduction to the Emerging Trends	Chapter 2 Emerging Trends	<ul style="list-style-type: none"> • Emerging Trends • Introduction to Emerging Trends • Artificial Intelligence (AI) • Big Data • Internet of Things (IoT) • Cloud Computing • Grid Computing • Blockchains

February			• Revision
March	Term II Assessment (Practical + Practical File + Viva + Project File)		

SUBJECT: ECONOMICS (030)

TERM 1			
Month	Unit	Chapter	Topics
APRIL	Unit:1	Introduction & meaning and scope of statistics	What is Economics? Meaning, scope, functions and importance of statistics in Economics
MAY	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.
JULY	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) and 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.
	UNIT TEST	Unit:1 Statistics Unit :4 Micro Economics	
AUGUST	Unit :7	Price Determination and simple applications.	Determination of market equilibrium and effects of shifts in demand and supply. (Short Run Only) Simple Applications of Demand and Supply: Price ceiling, Price floor.

	Unit :2	Collection, Organisation 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. Presentation of Data: Tabular Presentation 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).
SEPTEMBER		REVISION	Term 1 syllabus:- Unit 1, Unit 2, Unit 4, Unit 5 & Unit 7
TERM 2			
OCTOBER	Unit 6	Producer Behaviour and Supply	Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product. Returns to a Factor Cost – Short run costs - Total Cost, Total Fixed Cost, Total Variable Cost; Average Cost; Average Fixed Cost, Average Variable Cost and Marginal Cost - meaning and their relationships. Revenue – Total Revenue, Average Revenue and Marginal Revenue - meaning and their relationship. Producer's Equilibrium - meaning and its conditions in terms of Marginal Revenue ,Marginal Cost. Supply, market supply, determinants of 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 method.
NOVEMBER	Unit 7	Perfect Competition	Perfect competition - Features.
	Unit 3	Statistical Tools and Interpretation	Measures of Central Tendency- Arithmetic mean, Median and Mode
DECEMBER	Unit 3	Statistical Tools and Interpretation	Correlation – meaning and properties, scatter diagram; measures of correlation - Karl Pearson's method (two variables ungrouped data) Spearman's rank correlation (Non-Repeated Ranks and Repeated Ranks).
JANUARY	Unit 3		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, Simple Aggregative Method.
FEBRUARY	REVISION & ANNUAL EXAMINATION		Complete syllabus

SUBJECT: PSYCHOLOGY

Month	Unit	Chapter	Topics
April	CHAPTER -1	WHAT IS PSYCHOLOGY?	Psychology as a Discipline, Psychology as a Natural Science, Psychology as a Social Science, Understanding Mind and Behaviour, Popular notions about the discipline of Psychology, Evolution of Psychology, Branches of Psychology, Psychology and Other Disciplines, Psychology in Everyday Life
	CHAPTER -2	METHODS OF ENQUIRY IN PSYCHOLOGY	Goals of Psychological Enquiry, Steps in Conducting Scientific Research, Nature of Psychological Data, Observational Method, Experimental Method, Correlational Research, Survey Research, Psychological Testing, Case Study, Analysis of Data: Quantitative Method and Qualitative Method, Limitations of Psychological Enquiry, Ethical Issues.
May	CHAPTER -4	HUMAN DEVELOPMENT	Meaning of Development, Life-Span Perspective on Development, Factors Influencing Development, Prenatal Stage, Infancy, Childhood, Gender and Sex Roles, Challenges of Adolescence, Adulthood and Old Age.
	PRACTICAL	PRACTICAL ON SERIAL VERBAL LEARNING.	To study the effect of Nonsense syllables on Serial Verbal Learning.
July	CHAPTER -5	SENSORY, ATTENTIONAL AND PERCEPTUAL PROCESSES	Knowing the World, Attentional Processes, Selective Attention, Divided Attention, Sustained Attention, Span of Attention, Perceptual Processes, The Perceiver, Principles of Perceptual Organisation, Perception of Space, Depth, and Distance, Monocular Cues and Binocular Cues, Perceptual Constancies, Illusions, Socio-Cultural Influences on Perception.
August	CHAPTER -6	LEARNING	Nature of Learning, Classical Conditioning, Determinants of Classical Conditioning, Operant/Instrumental Conditioning, Determinants of Operant Conditioning, Key Learning Processes, Observational Learning, Cognitive Learning, Verbal Learning, Skill Learning, Concept Learning, Factors Facilitating Learning, Learning Disabilities.
September	TERM I EXAMINATION		

October	CHAPTER -7	HUMAN MEMORY	Nature of Memory, Information Processing Approach: The Stage Model Memory Systems, Levels of Processing, Types of Long-term Memory, Declarative and Procedural; Episodic and Semantic, Nature and Causes of Forgetting, Forgetting due to Trace Decay, Interference and Retrieval Failure, Enhancing Memory, Mnemonics using Images and Organisation
	CHAPTER -8	THINKING	Building Blocks of Thought, Problem Solving, Reasoning, Decision-making, Nature and Process of Creative Thinking, Nature and Process of Creative Thinking, Thought and Language, Development of Language and Language Use.
November	CHAPTER -9	MOTIVATION AND EMOTION	Nature of Motivation, Types of Motives: Biological Motives & Psychosocial Motives, Maslow's Hierarchy of Needs, Nature of Emotions, Expression of Emotions, Culture and Emotional Expression, Managing Negative Emotions, Enhancing Positive Emotions.
	PRACTICAL	PRACTICAL ON INTERFERENCE EFFECT	To study the effect of Interference on Free recall of Nonsense syllables.
December & January	REVISION		
February	TERM II EXAMINATION		

SUBJECT: LEGAL STUDIES

TERM 1			
MONTH	UNIT	CHAPTER	TOPICS
April	Unit-1	<p><u>Unit 1: Introduction to Political Institutions</u></p> <p>Chapter 1: Concept of State</p> <p>Chapter 2: Forms and Organs of Government</p>	<p>Unit 1: Chapter 1</p> <p>(i)What is a State; (ii)The concept of State and Article 12 of the Constitution of India; (iii) What is Government; (iv)Emergence of the State from Society; (v) Definition of State; (vi) Theories on the origin of State (vii) Elements of a State; and (viii) Role of a State</p> <p>Unit 1: Chapter 2</p> <p>(i)Introduction to the Organs of Government; (ii) Forms of Government; (iii) Main Organs of Government and its Functions</p>
May	Unit-1	<p><u>Unit 1: Introduction to Political Institutions</u></p> <p>Chapter 3: Separation of Powers</p> <p><u>Briefing of CBSE Project (Term-I) and selection of Topics.</u></p>	<p>Unit 1: Chapter 3</p> <p>(i)Concept of Separation of Powers; (ii) Historical Background and Evolution of Montesquieu’s Doctrine of Separation of Powers; (iii) Montesquieu’s Doctrine of Separation of Powers ; (iv) Basic Features of the Doctrine Separation of Powers as enunciated by Montesquieu; (v) Checks and Balances of Power (vi) Impact of the Doctrine; (vii) Evaluation of the Doctrine of Separation of Powers (viii) Key Benefits and Advantages of The Doctrine of Separation of Powers (ix) Defects of the Doctrine (x) Separation of Powers in Practice (India, US, Britain)</p>
<p><u>SUMMER BREAK:</u></p> <p><u>HOLIDAY HOMEWORK</u></p> <p>1. <u>Prepare a Research Project:</u> Students are required to prepare a research project addressing legal issues related to any topic from the textbook or around them that needs immediate redressal. Some suggested topics- • Uniform Civil Code • Law reforms in India • Juvenile Justice • Death Penalty • Right to Freedom of speech or any other course related topic.</p>			

<p>2. <u>Write Book Review</u> on one (1) book involving Legal Literature (non-fiction) based on Facts, which includes expository, argumentative, functional, and opinion pieces; essays on art or literature; biographies; memoirs; journalism; and historical, scientific, technical, or economic writings, Academic Paper, etc</p>			
July	Unit 2	<p><u>Unit 2 Basic Features of the Constitution of India</u></p> <p>Chapter 1: Salient Features of the Constitution of India</p> <p>Chapter 2: Administrative Law</p>	<p><u>Unit 2: Chapter 1</u></p> <p>(i) Meaning of the term Constitution; (ii) Definition of the term Constitution (iii) Historical perspective of the Constitution of India(iv). Salient Features of the Constitution of India</p> <p><u>Unit 2: Chapter 2</u></p> <p>(i)Background; (ii) Administrative Law and Constitutional Law: Key Differences; (iii) Reasons for Growth, Development and Study of Administrative Law; (iv) Types of Administrative Actions; (v) Fundamental Principle of Administrative Law: Rule of Law (vi) Droit System</p>
August	Unit 3	<p><u>Unit 3 Jurisprudence, Nature and Sources of Law</u></p> <p>Chapter 1: Jurisprudence, Nature and Meaning of Law</p> <p>Chapter 2: Classification of Laws</p> <p>Chapter 3: Sources of Laws</p> <p><u>Follow up of Project (Term-I)</u></p>	<p><u>Unit 3: Chapter 1</u></p> <p>(i)Introduction; (ii) Historical Perspective; (iii) Schools of Law; (iv) Function and Purpose of Law</p> <p><u>Unit 3: Chapter 2</u></p> <p>Classification of law based on (i) Subject Matter (ii) Scope of Law (iii) Jurisdiction</p> <p><u>Unit 3: Chapter 3</u></p> <p>(i) Where does law come from (ii) Custom as a Source of Law; (iii) Importance of Custom as a Source of Law in India; (iv) Judicial Precedent as a Source of Law; (v) Legislation as a Source of Law</p>
September		Revision For First Terminal Examination	

October	Unit 3	<p><u>Unit 3 Jurisprudence, Nature and Sources of Law</u></p> <p>Chapter 4: Law Reforms</p> <p>Chapter 5: Cyber Laws, Safety and Security in India</p> <p><u>Briefing of CBSE Project (Term-II) and selection of Topics.</u></p>	<p><u>Unit 3: Chapter 3</u></p> <p>(i)Need for Law Reform (ii) Law Reforms in India and (iii) Recent Law reforms in Independent India</p> <p><u>Unit 3: Chapter 4</u></p> <p>(i)Introduction (ii) Why do we need Cyber Laws? (iii) What is Cyber law? (iv) What is Cyber safety and Security? (v) What is Cyber-crime? (vi) Categories of Cyber-crime. (vii) Cyberlaw in India (viii) Scope or Extent of The Information Technology Act, 2000; (ix) What was Section 66 A IT Act, 2000</p>
November	Unit 4	<p><u>Unit 4-Judiciary: Constitutional, Civil and Criminal Courts and Processes</u></p> <p>Chapter 1: Judiciary: Constitutional, Civil and Criminal Courts and Processes</p> <p><u>Court Visits for Students [in 3 batches, that means three school days]</u></p>	<p><u>Unit 4:</u></p> <p>I. Introduction</p> <p>II. Judiciary: it's Constitution, Roles and Impartiality a. Independence and Impartiality of the Supreme Court b. Structure and Hierarchy of the Courts in India c. The Civil Process and functioning of Civil Courts</p> <p>III. The Civil Court Structure a. Common Legal Terminologies b. Types of Jurisdiction c. Res subjudice and Res judicata in Code of Civil Procedure, 1908</p> <p>IV. Structure and Functioning of Criminal Courts in India a. Types of Offences b. Criminal Investigations and First Information Report (FIR) c. Criminal Process - Investigation and Prosecution d. Doctrine of autrefois acquit and autrefois convict (i.e. previously acquitted or previously convicted) e. Function and Role of Police</p> <p>V. Other Courts In India a. Family Courts b. Administrative Tribunals</p>
December	Unit 5	<p><u>Unit 5: Family Justice System</u></p> <p>Chapter 1: Institutional Framework -</p>	<p><u>Unit 5: Chapter 1</u></p> <p>(i)Nature of Family Laws in India (ii) Human Rights and Gender Perspective (iii) Institutional Framework – Family (iv) Role of Women</p>

		<p>Marriage and Divorce</p> <p>Chapter 2: Child Rights</p> <p>Chapter-3: Adoption</p>	<p>in the Creation of Family Courts (v) Role of Lawyers and Counselors in Family Courts (vi) Role of Counsellors and Gender Issues (vii) Marriage and Divorce</p> <p><u>Unit 5: Chapter2</u></p> <p>(i)Child Rights (ii) Right to Education (iii) Right to Health (iv). Right to Shelter (v) Child Labour (vi) Sexual Abuse (vii) Juvenile Justice</p> <p><u>Unit 5: Chapter 3</u></p> <p>(i)Adoption (ii) Minor custody and Guardianship</p>
January	Unit 5	<p><u>Unit 5: Family Justice System</u></p> <p>Chapter 4: Property, Succession and Inheritance</p> <p>Chapter 5: Prevention of Violence against Women</p> <p><u>Follow up of Project (Term-II)</u></p>	<p><u>Unit 5: Chapter 4</u></p> <p>(i)Concept of Property: Joint Family Property and Separate Property (ii) Inheritance and Succession; (iii) Intestate Succession; (iv). Rules relating to Intestate Succession; (v) Testamentary Succession</p> <p><u>Unit 5: Chapter 5</u></p> <p>(i)What is Domestic abuse/violence? (ii) International Legal Framework (iii) Laws in India on Prevention of Violence against Women</p>
February & March		<p><u>Revision</u></p> <p>Moot court Intra-school or amongst Legal Studies Students.</p>	
		<p>Annual Examination</p>	

SUBJECT: ENTREPRENEURSHIP

Month	Unit	Chapter	Topics
April	Unit 1	Ch-1 Entrepreneurship: Concept and Functions	<ul style="list-style-type: none"> • Entrepreneurship – Concept, Functions and Need • Why Entrepreneurship for You • Myths about Entrepreneurship • Advantage and Limitations of Entrepreneurship • Process of Entrepreneurship • Entrepreneurship – The Indian Scenario • Project work guidelines to be given to the students on ‘Consumer demand survey on buying habits of’ so that they can choose their topic and start project work.
May	Unit 2	Ch-2 An Entrepreneur	<ul style="list-style-type: none"> • Why be an entrepreneur • Types of Entrepreneurs • Competencies and characteristics • Entrepreneurial Values, Attitudes and Motivation • Intrapreneur: Meaning and Importance
July	Unit 3	Ch-3 Entrepreneurship Journey	<ul style="list-style-type: none"> • Idea generation. • Feasibility Study and opportunity assessment • Business Plan: meaning, purpose and elements • Execution of Business Plan
	1-Unit Test Syllabus	Ch- 1 and 2 (Entrepreneurship: Concept and Functions, An Entrepreneur)	
August	Unit 4	Ch-4 Entrepreneurship as Innovation and Problem Solving	<ul style="list-style-type: none"> • Entrepreneurs as problem solvers • Innovations and Entrepreneurial Ventures – Global and Indian • Role of Technology – E-commerce and Social Media • Social Entrepreneurship – Concept
September		Term 1 exam syllabus Ch- 1-4	Practical; Project File (Questionnaire) and Viva vice
October	Unit 5	Understanding the Market	<ul style="list-style-type: none"> • Market: Concept, Types • Micro and Macro Market Environment

			<ul style="list-style-type: none"> • Market Research - Concept, Importance and Process • Marketing Mix
	2-Unit Test	Ch-4 & 5(Entrepreneurship as Innovation and Problem Solving, Understanding the Market)	
November	Unit 6	Business Finance and Arithmetic	<ul style="list-style-type: none"> • Unit of Sale, Unit Price and Unit Cost – for single product or service • Types of Costs - Start up, Variable and Fixed • Break Even Analysis - for single product or service
December	Unit 7	Resource Mobilization	<ul style="list-style-type: none"> • Types of Resources – Physical, Human, Financial and Intangible. • Selection and utilization of human resources and professionals like Accountants, Lawyers, Auditors, Board Members etc.
	3-Unit Test	Ch-6,7 (Business Finance and Arithmetic & Resource Mobilization)	
January	Project work and revision	Sample Papers	Project work
February & March	Revision And Project Work	Sample Papers	
	2-Term Exam	Ch-1-7	Practical Exam- Project File & Viva Vice

SUBJECT: PHYSICAL EDUCATION (048)

MONTH	UNIT	Chapter	TOPICS
APRIL	Unit I: Changing Trends and Careers in Physical Education	Changing Trends and Careers in Physical Education:	<p>Concept, Aims & Objectives of Physical Education</p> <p>Development of Physical Education in India – Post Independence</p> <p>Changing Trends in Sports- playing surface, wearable gear and sports equipment, technological advancements</p> <p>Career options in Physical Education</p> <p>Khelo-India Program and Fit – India Program</p>
MAY	Unit II: Olympism Value Education	Olympism Value Education	<p>Olympism – Concept and Olympics Values (Excellence, Friendship & Respect)</p> <p>Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind</p> <p>Ancient and Modern Olympics</p> <p>Olympics - Symbols, Motto, Flag, Oath, and Anthem</p> <p>Olympic Movement Structure - IOC, NOC, IFS, Other members</p>
JULY	Unit III: Yoga	Yoga	<p>Meaning and importance of Yoga</p> <p>Introduction to Astanga Yoga</p> <p>Yogic Kriyas (Shat Karma)</p> <p>Pranayama and its type</p> <p>Active Lifestyle and stress management through Yoga</p>
AUGUST	Unit IV: Physical Education and Sports for Children with Special Needs	Physical Education and Sports for Children with Special Needs	<p>Concept of Disability and Disorder</p> <p>Types of Disability, its causes & nature (Intellectual disability, Physical disability).</p> <p>Disability Etiquette</p> <p>Aim and objectives of Adaptive Physical Education</p> <p>Role of various professionals for children with special needs (Counselor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist, and Special Educator)</p>
	Unit V: Physical Fitness, Wellness, and Lifestyle	Physical Fitness, Wellness, and Lifestyle	<p>Meaning & importance of Wellness, Health, and Physical Fitness</p> <p>Components/Dimensions of Wellness, Health, and Physical Fitness</p> <p>Traditional Sports & Regional Games for promoting wellness</p> <p>Leadership through Physical Activity and Sports</p> <p>Introduction to First Aid – PRICE</p>

SEPTEMBER			TERM I EXAMINATION
			Physical Education Test /Practical 1. Fitness Test – SAI Khelo India Fitness Test in school Age group 5-8 years/ class 1-3: BMI, Flamingo Balance Test
SYLLABUS: <u>UNIT TEST:</u> Changing Trends and Careers in Physical Education Olympism Value Education			SYLLABUS: <u>TERM 1 EXAMINATION:</u> 1.Changing Trends and Careers in Physical Education 2.Olympism Value Education 3. Yoga 4 Physical Education and Sports for Children with Special Needs 5. Physical Fitness, Wellness, and Lifestyle

TERM II (OCTOBER to MARCH)

MONTH	UNIT	CHAPTERS	TOPIC
OCTOBER	Unit VI: Test, Measurement & Evaluation	Test, Measurement & Evaluation	<ol style="list-style-type: none"> 1. Define Test, Measurements and Evaluation 2. Importance of Test, Measurements and Evaluation in Sports 3. Calculation of BMI, Waist – Hip Ratio, Skin fold measurement (3-site) 4. Somato Types (Endomorphy, Mesomorphy & Ectomorphy) 5. Measurements of health-related fitness
NOVEMBER	Unit VII: Fundamentals of Anatomy, Physiology in Sports	Fundamentals of Anatomy, Physiology in Sports	<ol style="list-style-type: none"> 1. Definition and importance of Anatomy and Physiology in Exercise and Sports 2. Functions of Skeletal System, Classification of Bones, and Types of Joints 3. Properties and Functions of Muscles 4. Structure and Functions of Circulatory System and Heart 5. Structure and Functions of Respiratory System
	Unit VIII: Fundamentals Of Kinesiology And Biomechanics in Sports	Fundamentals Of Kinesiology And Biomechanics in Sports	<ol style="list-style-type: none"> 1. Definition and Importance of Kinesiology and Biomechanics in Sports 2. Principles of Biomechanics 3. Kinetics and Kinematics in Sports 4. Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation 5. Axis and Planes – Concept and its application in body movements
DECEMBER	Unit IX: Psychology and Sports	Psychology and Sports	<ol style="list-style-type: none"> 1. Definition & Importance of Psychology in Physical Education & Sports 2. Developmental Characteristics at Different Stages of Development; 3. Adolescent Problems & their Management 4. Team Cohesion and Sports 6. Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness
JANUARY	Unit X: Training & Doping in Sports	Training & Doping in Sports	<ol style="list-style-type: none"> 1. Concept and Principles of Sports Training 2. Training Load: Over Load, Adaptation, and Recovery 3. Warming-up & Limbering Down – Types, Method & Importance 4. Concept of Skill, Technique, Tactics & Strategies 5. Concept of Doping and its disadvantages

SUBJECT: FASHION STUDIES

Months	Teaching Days	Topics	Activities
April	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 1 Overview of Fashion</p> <p>1.1 Understanding Fashion</p> <p>1.2 Factors Influencing Fashion</p> <ul style="list-style-type: none"> • Economics factors • Psychological factors • Social & Cultural factors • Textiles <p>CHAPTER 3 - Design Fundamentals</p> <p>3.1 Design, Designer and Design Process</p> <p>Designer</p> <p>Design concept</p> <p>The Design process</p> <p>3.2 Elements of Design</p> <ul style="list-style-type: none"> • Poin • Line <p>Vertical, horizontal, Curved, Broken, zigzag, staircase, spiral, Mountains, dashed-dotted, jagged etc.</p>	<p>Observe and analyse the Selected area and identify the Elements of design.</p> <p>Design develops by points and make a composition with different size of dots or bindi or flat pearls</p> <p>Draw different types of lines on A block size of 4x4’’</p> <p>Develop a design using different types of lines with black pen, marker and sketch pens.</p> <p>Make a composition of lines with different colour mediums.</p>
May	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 1 Overview of Fashion</p> <p>1.1 Understanding Fashion</p> <p>1.2 Factors Influencing Fashion</p> <ul style="list-style-type: none"> • factors • Geographical factors • Technological advancement in Textiles <p>1.3 Key concept and terminology</p> <p>1.4 Movement and direction of fabric</p>	<p>Make a composition of lines with different colour mediums.</p> <p>Draw different types of shapes in a block size of 4x4’’</p>

		<p>CHAPTER 3 - Design Fundamentals</p> <p>3.1 Design, Designer and Design Process</p> <p>3.2 Elements of Design</p> <ul style="list-style-type: none"> • Shapes Natural, geometric and abstract shapes • Texture • Space 	Create textures from different Material on a block size of 4x4''
July	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 1 Overview of Fashion</p> <p>1.3 Key concept and terminology</p> <p>1.4 Movement and direction of fabric</p> <p>1.5 Theories of fashion movement</p> <p>1.6 Consumer segment</p> <p>1.7 International trade in fashion</p> <p>1.8 Fashion regularity bodies in India</p> <p>CHAPTER 3 - Design Fundamentals</p> <p>3.3 Colour theory and Psychology of colours</p> <ul style="list-style-type: none"> • Hue ,Tint, Tones and Shades • Colour Theory: The Prang System • Colour Schemes <p>3.4 Colour Palette</p> <p>3.5 Colour Psychology</p> <p>BOOK 2- Employability Skills</p> <p>UNIT –I Communication Skills III</p> <ul style="list-style-type: none"> • Introduction to communication • Verbal & non-verbal communication • Communication Styles • Writing skills-part of speech & sentences • Greetings and introduction 	<p>Collect the information of famous Indian designers. Write about any one Indian designer who has a main label and pret label.</p> <p>Sketch any 1 object four times. Apply 4 colour schemes to each of them.</p>
August	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 2 – Introduction to Fabrics, Dyeing & Printing</p> <p>2.1 Introduction: Textile Fibers</p> <p>2.2 Classification of Textile Fibres</p>	Collect 5 different types of fibers and write down their properties and applications.

		<ul style="list-style-type: none"> i. Natural fibres ii. Manmade fibres iii. High performance fibers <p>2.3 Yarns</p> <p>CHAPTER 3 - Design Fundamentals</p> <p>3.6 Principles of Design</p> <ul style="list-style-type: none"> • Rhythm • Balance • Emphasis • Contrast • Proportion <p>3.7 Illustration Apparel on fashion figure</p> <ul style="list-style-type: none"> • The Block figure • Relative proportion of normal and fashion figure. • Steps to develop a pose from line Drawing to the croqui. <p>BOOK 2- Employability Skills</p> <p>UNIT-2- Self- management skills</p> <ul style="list-style-type: none"> • Strength and weakness analysis • Grooming and personal hygiene • Team Work • Networking Skills • Self- management • Goal setting and Time management <p>UNIT 3- ICT Skills</p> <ul style="list-style-type: none"> • Introduction to ICT • Basic Interface of Liber Office Writer • Saving, closing, opening & printing Document. Formatting Text in a Word Document. • Checking spelling & grammar, Inserting Lists, tables, Pictures & shapes. • Header, Footer and page number 	<p>Observe and analyse the Selected normal forms and Identify the Principles of Design.</p> <p>Steps to develop a pose from line drawing to the croqui.</p>
--	--	---	---

September	Tuesday & Wednesday only	REVISION for Mid-Term	
October	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 2 – Introduction to Fabrics, Dyeing & Printing</p> <p>2.3 Yarns</p> <p>2.4 Weaving</p> <p> i. Weaving process</p> <p> ii. Weave structure</p> <p>2.5 Dyeing</p> <p> i. Classification of dyes</p> <p> ii. Natural dyes</p> <p> iii. Synthetic dyes</p> <p> iv. General theory of dyeing</p> <p>CHAPTER 4 - Elements of Garment Making</p> <p>4.1 Elements of Garment Making</p> <p>Sewing Machine</p> <p> i. Lock Stitch Machine</p> <p> ii. Types of Lock Stitch Machine</p> <p> iii. Parts of Sewing Machine</p> <p> iv. Threading the Machine</p> <p>4.2 Sewing Tools and Safety Rules</p> <p> i. Safety Rules</p> <p> ii. Sewing Tools and Equipment and their uses</p> <p>4.3 Common Machine Problems</p> <p>4.4 Operating Power Machine and Domestic Machine</p> <p>BOOK 2- Employability Skills</p> <p>UNIT 4- Entrepreneur Skills</p> <ul style="list-style-type: none"> • Introduction to Entrepreneurship • Values of Entrepreneur • Attitude of an Entrepreneur • Thinking like an Entrepreneur • Coming up with Business Idea • Understanding the Market 	<p>Open any one yarn by untwisting it and remove the fibres or the filaments to observe the process of yarn Formation.</p> <p>Burning test of different fibers.</p> <p>Visit the market and identify various sewing machines from different brands and note their prices. Co-relate the prices with the functions that a machine can perform. Prepare a short report of about 5-6 pages.</p> <p>Familiarize with sewing Machine</p> <p>Objective:- To Stitch on Paper Practicing on machine</p> <p>Doing machine exercises on paper</p> <p>Working on paper without thread</p>

		<ul style="list-style-type: none"> • Business Planning 	
November	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 2 – Introduction to Fabrics, Dyeing & Printing</p> <p>2.6 Printing</p> <ol style="list-style-type: none"> Theory of printing Methods of printing Transfer printing Digital printing <p>CHAPTER 4 - Elements of Garment Making</p> <p>4.5 Hand Stitches:-</p> <ol style="list-style-type: none"> Temporary Stitches Permanent Stitches Decorative Stitches <p>4.6 Seam</p> <ol style="list-style-type: none"> Plain Seam Curved Seam Cornered Seam Seam Finishes Self-Enclosed seams Top Stitching Seams 	<p>Study the print design from printed fabric samples. Sketch the print design on Paper and write down how Many dyes have been used to Print the design.</p> <p>Making Samples of Hand stitches on cotton fabric or poplin fabric and window, mounting all the samples on A/4 size pastel sheets with necessary information on it.</p> <p>Making samples of machine seams on poplin fabric .sample size 10”X10”</p>
December	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 2 – Introduction to Fabrics, Dyeing & Printing</p> <p>Fabric Samples:</p> <ol style="list-style-type: none"> Cotton ,wool,silk, polyester and nylon Weaving samples :- Plain weave, Twill weave and Satin weave 5 printed samples of the following printing techniques : Block printing Screen printing Digital printing Any 20 samples consisting of different types of weaves, prints, structure etc. <p>CHAPTER 4 - Elements of Garment Making</p>	<p>Observe the type of print , colour, thickness, feel and the comfort properties of each sample.</p>

		<p>4.7 Seam with Fullness</p> <ol style="list-style-type: none"> i. Eased Seam ii. Gathered Seam <p>4.8 Pleats:-</p> <ul style="list-style-type: none"> Side Pleats /Knife Pleats Box Pleats Inverted Box Pleats Kick Pleats Accordion Pleats 	<p>Making samples of machine seams on poplin fabric .sample size 10”X10”</p> <p>Making samples of pleats on fine cotton fabric. Sample size 10x10</p>
January	Tuesday & Wednesday only	<p>BOOK -1 –FASHION STUDIES</p> <p>CHAPTER 4 - Elements of Garment Making</p> <p>4.9 Tucks</p> <p>Pin Tucks</p> <ul style="list-style-type: none"> Space Tucks Blind Tucks Crossed Tucks Released Tucks <p>4.10 Fashion Products</p> <ul style="list-style-type: none"> • Introduction to the fashion industry • Home fashion products • Unstitched category of home textile, apparel and floor covering • Traditional Indian products of leather <p>BOOK 2- Employability Skills</p> <p>UNIT 5- Green Skills</p> <ul style="list-style-type: none"> • Sectors of Green Economy • Policies for a Green Economy • Stakeholders in Green Economy • Government and Private Agencies 	<p>Making samples of Tucks on fine cotton fabric. Sample size 10x10</p>
February	Tuesday & Wednesday only	<p>FINAL SUBMISSION OF FILES AND ASSIGNMENTS</p> <p>Practical Examination</p> <p>REVISION FOR FINAL TERM</p>	

FEBRUARY	REVISION
MARCH	PRACTICAL/ FINAL EXAMINATION
<p>Physical Education Test</p> <p>1. Fitness Test – SAI Khelo India Fitness Test in school Age group 5-8 years/ class 1-3: BMI, Flamingo Balance Test</p>	<p>ACTIVITIES:</p> <ol style="list-style-type: none"> 1. Proficiency in Games and Sports (Skill of any one IOA recognized Sport/Game of Choice) 2. Yogic Practices 3. Record File 4. Viva Voce (Health/ Games & Sports/ Yoga)