# Doon Public School

A New Generation Sr. Sec. School | Affiliated to CBSE
Sector 21, Panchkula - 134 112 (Haryana)

# Class- XI (Science)
# Syllabus for the Session 2026-27

**Note: The syllabus for Periodic Test II will be uploaded to the school website in the first week of December.**

## English Core

| **Book Prescribed: NCERT** | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | Chapter No.1 : The Portrait of a Lady (Prose), Hornbill | **Students will be able to:**<br>**Remember:** The key events , character sketch of grandmother, moral values, and message of the chapter<br>**Understand:** The bonding between grandmother and Khushwant Singh, grandmother's love for animals<br>**Apply:** Grand mothers' values, love for animals and adaptability in real life<br>**Analyze:** The difference in village school education and city school education |
| | | A Photograph (poem), Hornbill | **Students will be able to:**<br>**Remember:** The theme, message and personal experiences of the poet<br>**Understand:** The significance of photograph, poetic devices and the pain of losing mother<br>**Apply:** The poem's theme in real life situation and valuing every moment<br>**Analyze:** The events of mother's past and poet's past and how they create a beautiful bonding between mother and a daughter |
| | | Creative Writing- Note Making | **Students will be able to:**<br>**Remember:** The format of Note Making and key character of note making<br>**Understand:** The importance of note-making in learning and retention<br>**Apply:** Note making technique in various subjects for better understanding<br>**Analyze:** The effectiveness of note making |
| | | Chapter No.1: The Summer of the Beautiful White Horse (prose) Snapshots | **Students will be able to:**<br>**Remember:** The story events, characteristics of Mourad and Aram and setting of the chapter<br>**Understand:** The theme of honesty, family, morality through characters<br>**Apply:** The decision making , overcoming dilemma and choosing the right path qualities in real life<br>**Analyze:** The cultural values of the tribe |
| | | Chapter No. 2: We aren't Afraid to Die... if We can be together (prose) Hornbill | **Students will be able to:**<br>**Remember:** The message , character traits of all the characters and the events of the voyage<br>**Understand:** The importance of family, courage and togetherness<br>**Apply:** The moral values gained from the chapter in real life to create better family bonding<br>**Analyze:** The days of January 3rd to January 5th and analyse the behaviour and support of every character |

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| | | Creative Writing- Classified Advertisement , Speech Writing | **Students will be able to:**<br>**Remember:** The format of advertisement and speech writing<br>**Understand:** The purpose and structure of a classified advertisement and coherence in speech writing<br>**Apply:** The writing skills in real life situation<br>**Analyze:** The importance of correct format and content |
| | **June** | **SUMMER BREAK** | |
| | **July** | Chapter No. 2 : The Address ( Prose) Snapshots | **Students will be able to:**<br>**Remember:** The decision making in midst of mental struggles of a doctor and his medical ethics<br>**Understand:** The effect of war, significance of address in character's life<br>**Apply:** The concept of attachment-dettachment, importance of memories over materialism in real life to move ahead<br>**Analyze:** The emotional journey and character development with the course of event |
| | | Integrated Grammar | **Students will be able to:**<br>**Remember:** The key rules to use subject verb and tenses<br>**Understand:** The importance of grammar in using right syntax<br>**Apply:** Correct usage of language in real life situation<br>**Analyze:** The importance of correct use of language |
| | | The Laburnum Top ( Poem) Hornbill | **Students will be able to:**<br>**Remember:** The theme, message and personal experiences of the poet<br>**Understand:** The significance of Laburnum tree and goldfinch's behaviour; poetic devices<br>**Apply:** The poem's theme in real life situation and work silently and enjoy the activity in phase in life<br>**Analyze:** The poet's use of language and structure |
| | **August** | **PERIODIC TEST I** | |
| | | Chapter No. 3: Discovering Tut (prose) Hornbill | **Students will be able to:**<br>**Remember:** The key facts about King Tut's life and tomb<br>**Understand:** The possible reason of his death and about his family tree<br>**Apply:** The understanding of ancient Egyptian history to contextualize current events<br>**Analyze:** The impact of King Tut's tomb discovery on the understanding of ancient Egyptian history |
| | **September** | **TERM I EXAMINATION** | |
| **TERM-II** | **October** | Chapter 3 : Mother's Day (Prose,Play) Snapshots | **Students will be able to:**<br>**Remember:** The events, setting, and characteristics of the main character<br>**Understand**: The effect of significant change in mother's behaviour<br>**Apply:** The concept of self worth<br>**Analyze:** The emotional journey of a mother with the course of time |
| | | Chapter 4: The Adventure (Prose-Short Story) Hornbill | **Students will be able to:**<br>**Remember**: The concept of parallel worlds<br><br>**Understand:** The importance of historical event and its deep impact on human beings<br>**Apply:** The understanding of reality and science and fiction in real life<br>**Analyze:** The impact of small incidents on history |
| | | Chapter 4 : Birth ( Prose) Snapshots | **Students will be able to:**<br>**Remember:** The events, setting, and characteristics of the main character<br>**Understand:** The struggle of a mother and unborn child<br>**Apply:** The concept of professional responsibilities and ethical |

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| | **November** | Poem - The Voice of the Rain - Hornbill | **Students will be able to:**<br>**Remember:** The theme, message and personal experiences of the poet<br>**Understand:** The significance of rain<br>**Apply:** The poem's theme in real life situation and work silently and enjoy the activity in phase in life<br>**Analyze:** The poet's use of language and structure |
| | | Writing - Poster Making & Debate Writing | **Students will be able to:**<br>**Remember:** The format of Poster making and Debate writing<br>**Understand**: The purpose and structure of Poster making and debate writing<br>**Apply:** The writing skills in real life situations<br>**Analyze:** The importance of correct format and content |
| | **December & January** | **PERIODIC TEST II** | |
| | | Poem - Childhood - Hornbill | **Students will be able to:**<br>**Remember:** The theme, message and personal experiences of the poet's childhood<br>**Understand:** The significance of innocence of childhood and poetic devices<br>**Apply:** The poem's theme in real life situations<br>**Analyze:** The poet's use of language and structure |
| | | Chapter 5 : Silk Road (Prose-Travelouge) - Hornbill | **Students will be able to:**<br>**Remember:** The theme of adventure exploration<br>**Understand**: The cultural encounter of the Tibetian lifestyle and beliefs<br>**Apply:** The various facts related to Mount.Kailash in real life<br>**Analyse:** The writer's approach to man vs.nature |
| | | Chapter 6: Father to Son (Poem) Hornbill | **Students will be able to:**<br>**Remember:** The universal parent -child conflict<br>**Understand:** The speaker's emotions and perspective on their relationship with their son<br>**Apply:** The poem's themes to personal experience or observations about family relationships<br>**Analyze:** The poem's use of language, imagery, and symbolism to convey the speaker's emotions |
| | | Chapter 4 : The Tale of the Melon City (Prose) - Snapshots | **Students will be able to:**<br>**Remember**:The poem's, theme,message and the central idea<br>**Understand:** The poem's satire on bureaucracy and societal norms<br>**Apply:** The themes to real-life situations or observations about bureaucracy and conformity<br>**Analyze:** The author's commentary on human nature, power, and societal expectations |
| | | Integrated Grammar, Reading Comprehension (Revision) | **Students will be able to:**<br>**Remember:** The key rules to use subject verb and tenses<br>**Understand:** The importance of grammar in using right syntax<br>**Apply:** Correct usage of language in real life situation<br>**Analyze:** The importance of correct use of language |
| | | **REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Physics

| Book Prescribed: NCERT | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | Chapter 1: Units and Measurements | **Students will be able to:**<br>**Remember:** Need for measurement and systems of units<br>**Understand:** Concept of SI units, fundamental ,derived units and significant figures<br>**Apply:** Concept of dimensions of physical quantities to dimensional analysis and its applications<br>**Analyze**: Concept of the uncertainty in result to explore accuracy and precision |
| | | Chapter 2: Motion in a Straight Line | **Students will be able to:**<br>**Remember:** Frame of reference and concept of one-dimensional motion using position-time and velocity-time graphs<br>**Understand:** Concept of average speed, average velocity, and instantaneous velocity to solve numerical problems<br>**Apply**: Concept of 2D motion on graphical interpretation of motion and hence solve related problems<br>**Analyze:** Basic differentiation and integration concepts to derive equations of motion under uniform acceleration |
| | | Chapter 3: Motion in a Plane | **Students will be able to:**<br>**Remember:** Scalar and vector quantities with examples and identify vector notations<br>**Understand:** Vector operations and resolve vectors into components using graphical and analytical methods<br>**Apply**: Motion in a plane concept to the cases of uniform velocity, uniform acceleration- projectile motion and uniform circular motion<br>**Analyze:** Resolution of a vector in a plane in its rectangular components to compute Scalar and Vector product of vectors |
| | **June** | **SUMMER BREAK** | |
| | **July** | Chapter No. 4: Laws of Motion | **Students will be able to:**<br>**Remember:** Newton's laws of motion and related concepts like force, inertia, and momentum with examples.<br>**Understand:** Laws of motion to real-life scenarios such as vehicles on curved roads.<br>**Apply:** Types of friction, concept of uniform circular motion, centripetal force and centripetal acceleration to real world problems.<br>**Analyze:** Concepts learned to develop competency to solve numerical problems. |
| | | Chapter No. 5 : Work, Energy and Power | **Students will be able to:**<br>**Remember:** Work, energy, conservative and non-conservative forces.<br>**Understand:** Work-energy theorem and calculate energy in systems including springs and circular motion.<br>**Apply:** Concept of power in mechanical systems using real-life contexts.<br>**Analyze:** Problems on the concept of work, energy, collisions in one and two dimensions. |
| | **August** | **PERIODIC TEST I** | |

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| | | Chapter No. 7 : Gravitation | **Students will be able to:**<br>**Remember:** Kepler's laws of planetary motion and universal law of gravitation.<br>**Understand:** Acceleration due to gravity and its variation with altitude and depth<br>**Apply:** The concept of Gravitational potential energy and gravitational potential in real world situations.<br>**Analyze:** Concept of escape speed , orbital velocity and energy of an orbiting satellite to geostationary. |
| | **September** | **TERM I EXAMINATION** | |
| **TERM-II** | **October** | Chapter No. 8: Mechanical Properties of Solids | **Students will be able to:**<br>**Remember:** Elasticity, stress, strain, Hooke's law, Young's modulus, bulk modulus, shear modulus (modulus of rigidity), Poisson's ratio, elastic energy, and applications of elastic behaviour<br>**Understand:** Stress–strain relationship and the concepts of elasticity, Hooke's law, elastic moduli, Poisson's ratio, and elastic energy<br>**Apply:** The gained knowledge to calculate stress, strain, elastic moduli, Poisson's ratio, and elastic energy; solve numerical problems using Hooke's law and the stress–strain relationship<br>**Analyze:** The stress–strain curve, compare elastic moduli, and analyze the applications of elastic behaviour in engineering and everyday life |
| | | Chapter No. 9: Mechanical Properties of Fluid | **Students will be able to:**<br>**Remember:** Fluid pressure, Pascal's law, viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem, surface tension, surface energy, angle of contact, excess pressure, capillary rise, and their applications<br>**Understand:** Pressure due to a fluid column, the effect of gravity on fluid pressure, Pascal's law, viscosity, Stokes' law, Bernoulli's theorem, surface tension, angle of contact, excess pressure across a curved surface, and capillary rise<br>**Apply:** Pascal's law, Stokes' law, Bernoulli's theorem, Torricelli's law, fluid pressure, terminal velocity, excess pressure, and capillary rise to solve numerical and real-life problems<br>**Analyze:** Streamline and turbulent flow, the effect of viscosity and gravity on fluid motion, Bernoulli's theorem, and the applications of hydraulic systems, dynamic lift, drops, bubbles, and capillary rise in different situations |
| | **November** | Chapter No. 10: Thermal Properties of Matter | **Students will be able to:**<br>**Remember: Key terms related to** Heat and temperature, Wien's displacement law, and Stefan's law<br>**Understand:** Thermal expansion of solids, liquids, and gases; anomalous expansion of water; specific heat capacity, calorimetry, change of state, modes of heat transfer, thermal conductivity, blackbody radiation, Wien's displacement law, and Stefan's law<br>**Apply:** The gained knowledge to solve numerical and real-life problems<br>**Analyze:** The modes of heat transfer, analyze the thermal |

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| | | | behaviour of materials and water, and explain heat transfer and blackbody radiation in everyday life and practical situations |
| | | Chapter No. 11: Thermodynamics | **Students will be able to:**<br>**Remember:** The first and second laws of thermodynamics and defines terms like internal energy, isothermal, adiabatic and isobaric processes<br>**Understand:** The difference between heat, work and internal energy and interprets the sign conventions.<br>**Apply:** The laws of thermodynamics, equation of state, and thermodynamic processes to solve numerical and conceptual problems<br>**Analyze:** The difference between thermodynamic processes and analyze energy transfer and transformations using the laws of thermodynamics |
| | | Chapter No. 6: System of Particles and Rotational Motion | **Students will be able to:**<br>**Remember:** Centre of mass, momentum conservation, moment of force, torque, and angular momentum, equilibrium of rigid bodies, rotational motion, moment of inertia, radius of gyration, and moments of inertia of simple geometrical objects.<br>**Understand:** Centre of mass of a two-particle system, a rigid body, and a uniform rod; centre of mass motion; conservation of momentum and angular momentum; equilibrium of rigid bodies; rotational motion; comparison of linear and rotational motion; moment of inertia and radius of gyration.<br>**Apply:** The laws of conservation of momentum and angular momentum; solve numerical problems on rotational motion.<br>**Analyze:** Linear and rotational motion and rotational equilibrium and conservation of angular momentum in real-life situations |
| | **December & January** | | |
| | | Chapter No. 12: Kinetic Theory | **Students will be able to:**<br>**Remember:** Equation of state of a perfect gas, kinetic theory of gases, pressure, rms speed, degrees of freedom, law of equipartition of energy, mean free path, and Avogadro's number.<br>**Understand:** Work done in compressing a gas, assumptions of kinetic theory, kinetic interpretation of temperature, rms speed, degrees of freedom, equipartition of energy, mean free path, and Avogadro's number<br>**Apply:** The gained knowledge to solve numerical and conceptual problems<br>**Analyze:** Gas behaviour using kinetic theory, relate temperature to molecular motion, and compare the effect of degrees of freedom on specific heat capacities. |
| | | Chapter No. 13: Oscillations | **Students will be able to:**<br>**Remember:** The definition of SHM, its basic terms like time period, frequency, amplitude, phase and the equation $x=A\sin(\omega t+\phi)$<br>**Understand:** Periodic motion, SHM, uniform circular motion, restoring force, energy in SHM, and the time period of a simple pendulum<br>**Apply:** The formulas of time period of simple pendulum and spring-mass system to solve numerical problems in daily life |

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| | | Chapter No. 14: Waves | **Students will be able to:**<br>**Remember:** Wave motion, transverse and longitudinal waves, speed of a travelling wave, progressive wave, superposition of waves, reflection of waves, standing waves, fundamental mode, harmonics, and beats<br>**Understand:** Transverse and longitudinal waves, progressive waves, superposition, reflection, standing waves in strings and organ pipes, fundamental mode, harmonics, and beats<br>**Apply:** The gained knowledge to solve numerical and conceptual problems<br>**Analyze:** The difference between transverse and longitudinal waves, compare progressive and standing waves, and analyze the formation of harmonics and beats in different wave phenomena |
| | | **REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Chemistry

| **Book Prescribed: NCERT** | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM -I** | **April & May** | Chapter No. 1: Some Basic Concepts of Chemistry | **Students will be able to:**<br>**Remember**: The concept of mole, molar mass, and significant figures<br>**Understand:** The laws of chemical combination and mole concept<br>**Apply:** The concept in solving numerical problems on mass, mole, and volume<br>**Analyze:** The limiting reagent and percentage yield in reactions |
| | | Chapter No. 2: Structure of Atom | **Students will be able to:**<br>**Remember:** The atomic models and subatomic particles<br>**Understand**: The Bohr's model and quantum numbers<br>**Apply:** The knowledge to write electronic configurations using rules<br>**Analyze:** The different atomic models and their limitations |
| | | Chapter No. 3: Classification of Elements and Periodicity in Properties | **Students will be able to:**<br>**Remember:** The modern periodic law and periodic table structure<br>**Understand:** The periodic trends in properties<br>**Apply:** The knowledge to predict element properties based on position<br>**Analyze:** The trends and justify periodic behaviour |
| | **June** | **SUMMER BREAK** | |
| | | Chapter No. 4: Chemical Bonding and Molecular Structure | **Students will be able to:**<br>**Remember:** The types of bonds and octet rule<br>**Understand:** The VSEPR theory and hybridization<br>**Apply:** Lewis structures and predict molecular shape<br>**Analyze:** The bond types and explain molecular geometry |

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| | **July** | Chapter No. 5: Chemical Thermodynamics | **Students will be able to:**<br>**Remember:** The key thermodynamic terms and define system, surroundings<br>**Understand:** The laws of thermodynamics and enthalpy changes<br>**Apply:** The acquired knowledge to solve problems on heat, work, and internal energy<br>**Analyze:** The various thermodynamic processes and diffrentiate between them |
| | **August** | **PERIODIC TEST I** | |
| | | Chapter No. 6: Equilibrium | **Remember:** Define dynamic equilibrium and related terms.<br>**Understand:** Explain Le Chatelier's Principle and equilibrium constants.<br>**Apply:** Calculate Kc and Kp; predict shift in equilibrium.<br>**Analyze:** Compare physical and chemical equilibria with examples. |
| | **September** | **TERM I EXAMINATION** | |
| **TERM -II** | **October** | Chapter No. 7: Redox Reactions | **Students will be able to:**<br>**Remember:** Oxidation, reduction, and redox reactions.<br>**Understand:** Oxidation number and redox concepts<br>**Apply:** The redox changes and balance redox equations.<br>**Analyze**: The redox reactions in different chemical systems. |
| | **November** | Chapter No. 8:<br><br>Organic Chemistry Basic Principles and Techniques | **Students will be able to:**<br>**Remember:** The terms like homologous series, functional groups.<br>**Understand:** The concept of IUPAC naming, isomerism, and reaction mechanisms.<br>**Apply:** The knowledge to write structural formulas and name organic compounds.<br>**Analyze:** The different types of isomerism and reactions. |
| | **December & January** | | |
| | | Chapter No. 9:<br><br>Hydrocarbons | **Students will be able to:**<br>**Remember:** Define hydrocarbons and identify alkanes, alkenes, alkynes and aromatic hydrocarbons.<br>**Understand:** Explain the structure, nomenclature, isomerism and chemical properties of hydrocarbons.<br>**Apply:** Write structural formulae, IUPAC names and balanced chemical equations for important reactions of hydrocarbons**.**<br>**Analyze:** Differentiate between saturated and unsaturated hydrocarbons and compare their chemical properties and reactions. |
| | | **REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Biology

| Books prescribed- NCE`RT | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM -I** | **April & May** | Chapter No. 1: The Living World | **Students will be able to:**<br>**Remember:** The characteristics of living organisms, biodiversity term.<br>**Understand:** Taxonomic hierarchy and need for classification.<br>**Apply:** The gained knowledge to identify living vs non-living based on characteristics.<br>**Analyze**: The importance of taxonomy in studying biodiversity |
| | | Chapter No. 2 : Biological Classification | **Students will be able to:**<br>**Remember:** Five kingdom classification, characteristics of Monera, Protista, Fungi.<br>**Understand**: Basis of classification and evolution.<br>**Apply:** The gained knowledge to classify organisms into kingdoms.<br>**Analyze:** The comparison of kingdoms based on features. |
| | | Chapter No.3: Plant kingdom | **Students will be able to:**<br>**Remember**: The characteristics of algae, bryophytes, pteridophytes, gymnosperms.<br>**Understand:** The classification based on reproduction and body organization.<br>**Apply**: The gained knowledge to identify different plant groups in surroundings.<br>**Analyze:** Life cycles and evolutionary trends in plant groups. |
| | | Chapter No. 4: Animal Kingdom | **Students will be able to:**<br>**Remember:** Basis of classification and phyla characteristics<br>**Understand**: Differences among chordates and non- chordates<br>**Apply:** The gained knowledge to classify animals based on features<br>**Analyze**: Evolutionary relationship among organisms |
| | | Chapter No. 5: Morphology of Flowering Plants | **Students will be able to:**<br>**Remember:** Parts of plants and types of root, stem and leaves<br>**Understand**: Modifications and functions of plant parts<br>**Apply:** The identification of plant parts in real specimens<br>**Analyze:** Comparison of morphological adaptations |
| | **June** | **SUMMER BREAK** | |
| | **July** | Chapter No. 6: Anatomy of Flowering Plants | **Students will be able to:**<br>**Remember: C**haracteristics of meristematic and permanent tissues, tissue systems, stomata, vascular bundles, and anatomical features of roots, stems and leaves<br>**Understand: O**rganization and functions of plant tissues, secondary growth, and internal structure of monocot and dicot root, stem and leaves<br>**Apply: A**natomical adaptations of plants to xeric, hydric and mesophytic habitats and interpret transverse sections<br>**Analyze:** The difference monocot and dicot anatomy, primary and secondary growth, and correlate structure with function |
| | | Chapter No. 7: Structural Organisation in Animals. | **Students will be able to:**<br>**Remember:** Characteristics, location and functions of epithelial, connective, muscular and neural tissues and organs of frogs<br>**Understand:** Tissue organization, organ systems and morphology and anatomy of the Frog<br>**Apply:** Tissue structure to physiological functions and identify tissues from diagrams and slides<br>**Analyze:** Different tissue types and evaluate organ-system level organization in animals |

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| | | Chapter No. 8:<br>Cell: The Unit of Life. | **Students will be able to:**<br>**Remember:** Cell theory, cell organelles, plasma membrane, cell wall and cell inclusions<br>**Understand:** Structure and functions of organelles, membrane transport and cell organization<br>**Apply:** Cell diagrams, electron micrographs and relate organelle functions to cellular activities<br>**Analyze:** The difference between prokaryotic and eukaryotic cells, plant and animal cells, and evaluate organelle interactions |
| | **August** | **PERIODIC TEST I** | |
| | | Chapter No. 9:<br>Biomolecules | **Students will be able to:**<br>**Remember:** Carbohydrates, proteins, lipids, nucleic acids, enzymes and their basic structures.<br>**Understand:** Composition, classification, functions and biochemical significance of biomolecules and enzymes.<br>**Apply:** The gained knowledge to perform and interpret biochemical tests and relate biomolecules to metabolism and nutrition.<br>**Analyze:** Biomolecules based on structure and function and evaluate enzyme activity under different conditions. |
| | | Chapter No. 10:<br>Cell Cycle and Cell Division | **Students will be able to:**<br>**Remember:** Phases of cell cycle, mitosis, meiosis and chromosome structure.<br>**Understand:** Events occurring during cell cycle, mitosis, meiosis and their biological significance.<br>**Apply:** Stages of division from diagrams and relate cell division to growth, repair and reproduction.<br>**Analyze:** Mitosis and meiosis and evaluate the significance of chromosome behaviour and genetic variation. |
| | **September** | **TERM I EXAMINATION** | |
| **TERM -II** | **October** | Chapter No. 11:<br>Photosynthesis in Higher Plants. | **Students will be able to:**<br>**Remember:** The photosynthetic pigments, chloroplast structure, photosystems and factors affecting photosynthesis**.**<br>**Understand:** Light reactions, Calvin cycle, C4 pathway, CAM pathway and photorespiration.<br>**Apply:** The experimental observations and calculate factors influencing photosynthetic efficiency**.**<br>**Analyze:** The C3, C4 and CAM pathways and evaluate environmental influences on photosynthesis**.** |
| | | Chapter No. 12:<br>Respiration in Plants. | **Students will be able to:**<br>**Remember:**The glycolysis, Krebs cycle, electron transport system, respiratory quotient and fermentation.<br>**Understand:**The cellular respiration pathways and energy production in living cells.<br>**Apply:**The gained knowledge t**o** calculate respiratory quotient and relate respiration to plant growth and productivity.<br>**Analyze:**The aerobic and anaerobic respiration and evaluate factors affecting respiration. |
| | | Chapter No. 13:<br>Plant Growth and Development. | **Students will be able to:**<br>**Remember :** The growth phases, growth regulators and plant growth movements.<br>**Understand:**The physiological effects of auxins, gibberellins, cytokinins, ABA and ethylene.<br>**Apply:**The understanding of plant hormones to agriculture, horticulture and crop productivity.<br>**Analyze:** How growth responses and evaluate the role of environmental factors in development. |

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| | **November** | Chapter No. 14: Breathing and Exchange of gases. | **Students will be able to:**<br>**Remember:**The respiratory organs, respiratory volumes, capacities and respiratory pigments.<br>**Understand:**The mechanism of breathing, transport of gases and regulation of respiration.<br>**Apply:**The respiratory graphs, spirometry readings and relate them to health conditions.<br>**Analyze:**The respiratory disorders and compare gas exchange mechanisms. |
| | | Chapter No. 15: Body Fluids and circulation. | **Students will be able to:**<br>**Remember:**The components of blood, lymph, blood groups, heart structure and blood vessels.<br>**Understand:**The circulation, cardiac cycle, ECG and regulation of cardiac activity.<br>**Apply:**The gained knowledge to measure pulse rate, blood pressure and interpret circulation-related data.<br>**Analyze:**The systemic and pulmonary circulation and evaluate cardiovascular disorders. |
| | | Chapter No. 16: Excretory Products and their Elimination | **Students will be able to:**<br>**Remember:** Identify excretory products and parts of the human excretory system.<br>**Understand:** Explain urine formation, osmoregulation and kidney functioning.<br>**Apply:** Relate nephron structure to urine formation and water balance.<br>**Analyze:** Hormonal regulation of kidney function and causes of renal disorders. |
| | **December & January** | | **PERIODIC TEST II** |
| | | Chapter No. 17: Locomotion and Movement | **Students will be able to:**<br>**Remember:**The types of muscles, joints, skeletal elements and muscle proteins.<br>**Understand:**The mechanism of muscle contraction and functioning of the skeletal system.<br>**Apply:**The musculoskeletal organization to movement and posture.<br>**Analyze:**The muscle tissues and evaluate causes of locomotory disorders. |
| | | Chapter No. 18: Neural Control and Coordination | **Students will be able to:**<br>**Remember:**The neuron structure, nervous system divisions, receptors and reflex actions.<br>**Understand:**The nerve impulse transmission, synaptic conduction and neural coordination.<br>**Apply:**The reflex arc diagrams and relate nervous control to daily activities.<br>**Analyze:** CNS, PNS and autonomic nervous system and evaluate neurological disorders. |
| | | Chapter No. 19: Chemicals Coordination and Integration | **Students will be able to:**<br>**Remember:**The endocrine glands, hormones and target organs.<br>**Understand:**The hormonal regulation, feedback mechanisms and endocrine functions.<br>**Apply:** The hormonal actions to growth, metabolism, reproduction and homeostasis.<br>**Analyze:**The endocrine and nervous coordination and evaluate endocrine disorders such as diabetes, goitre and dwarfism. |
| | | | **REVISION OF FINAL EXAMINATION** |
| | **February & March** | | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** |

# Mathematics (041)

| Book Prescribed: NCERT | | | |
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| | **Months** | **Content** | |
| **TERM -I** | **April & May** | Chapter No. 5 : Complex Numbers and Quadratic Equations | **Students will be able to:**<br>**Remember:** Real Number System<br>**Understand:** Need for complex numbers<br>**Apply**: Algebraic properties of complex numbers<br>**Analyze:** Argand plane and polar representation of complex numbers. Statement of Fundamental Theorem of Algebra, solution of quadratic equations (with real coefficients) in the complex number system. |
| | | Chapter No.9: Sequences and Series | **Students will be able to:**<br>**Remember**: Sequence and Series<br>**Understand**: Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P<br>**Apply:** The gained knowledge to calculate the sum of n terms of a G.P., arithmetic mean and geometric mean<br>**Analyze:** Relation between A.M. and G.M |
| | **June** | **SUMMER BREAK** | |
| | **July** | Chapter No.3 – Trigonometric Functions | **Students will be able to:**<br>**Remember:** Positive and negative angles<br>**Understand:** Measuring angles in radians and in degrees and conversion from one measure to another<br>**Apply:** Expressing sin (x±y) and cos (x±y) in terms of sinx, siny,cosx & cosy and their simple applications<br>**Analyze:** Domain and range of Trigonometric functions and their graphs. Simple applications |
| | | Chapter No.5 : Linear Inequalities | **Students will be able to:**<br>**Remember:** Linear inequalities<br>**Understand:** Algebraic solutions of linear inequalities in one variable and their representation on the number line<br>**Apply:** Solution of linear inequalities graphically<br>**Analyze:** Solving of linear inequalities using graphical method |
| | | Chapter No.7: Binominal Theorem | **Students will be able to:**<br>**Remember:** Historical perspective<br>**Understand:** Statement and proof of the binomial theorem for positive integral indices.<br>**Apply:** Connecting binomial theorem with Pascal's triangle<br>**Analyze:** Simple applications |
| | | Chapter No.12: Limits & Derivatives | **Students will be able to:**<br>**Remember:** Derivative introduced as rate of change both as that of distance function and geometrically<br>**Understand:** Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions of polynomial and trigonometric functions<br>**Apply:** Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. idea of limit<br>**Analyze:** Derivative of sum, difference, product and quotient of functions |

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| | **August** | **PERIODIC TEST I** | |
| | | Chapter No.1:<br>Sets | **Students will be able to:**<br>**Remember:** Sets and their representations<br>**Understand:** Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set<br>**Apply:** Venn diagrams, Union and Intersection of sets, Difference of sets. Complement of a set<br>**Analyze:** Properties of Complement |
| | | Chapter No.2 :<br>Relations and Functions | **Students will be able to:**<br>**Remember:** Ordered pairs. Cartesian product of sets<br>**Understand:** Definition of relation, pictorial diagrams, domain, co-domain and range of a relation<br>**Apply:** Pictorial representation of a function, domain, co-domain and range of a function<br>**Analyze:** Sum, difference, product and quotients of functions |
| | **September** | **TERM I EXAMINATION** | |
| **TERM -II** | **October** | Chapter 9:<br>Straight Lines | **Students will be able to:**<br>**Remember:** Brief recall of two dimensional geometry from earlier classes.<br>**Understand:** Slope of a line and angle between two lines.<br>**Apply:**Distance of a point from a line.<br>**Analyze:**Various forms of equations of a line: parallel to axis, point - slopeform, slope-intercept form, two-point form, intercept form. |
| | **November** | Chapter 10 :<br>Conic Sections | **Students will be able to:**<br>**Remember:** Brief recall of two-dimensional geometry from earlier classes.<br>**Understand:** 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.<br>**Apply:** Standard equations and simple properties of parabola, ellipse and hyperbola<br>**Analyze:** Standard equation of a circle. |
| | | Chapter 11 :<br>Introduction to Three Dimensional Geometry | **Students will be able to:**<br>**Remember:** Coordinate axes<br>**Understand:** Coordinate planes in three dimensions.<br>**Apply:** Find distance between two points.<br>**Analyze:** Coordinates of a point. |
| | | Chapter No.13 :<br>Statistics | **Students will be able to:**<br>**Remember:**Recall the formulas used to calculate these measures for ungrouped and grouped data.<br>**Understand:** Explain the meaning and importance of measures of dispersion in statistics.<br>**Apply:** Calculate range, mean deviation, variance and standard deviation for ungrouped and grouped data using appropriate formulas.<br>**Analyze:** Interpret the calculated values to determine the variability and consistency of the given data. |

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| | **December & January** | **PERIODIC TEST II** | |
| | | Chapter No.14 : Probability | **Students will be able to:**<br>**Remember:** Recall the axioms and basic formulas of probability.<br>**Understand:** Explain the occurrence of events and differentiate between different types of events.<br>**Apply:** Calculate the probability of an event using the axiomatic approach.<br>**Analyze:** Compare and interpret probabilities of different events in real-life situations. |
| | | Chapter No.8 : Permutations and Combinations | **Students will be able to:**<br>**Remember:** Define permutations and combinations and state the fundamental principle of counting.<br>**Understand:** Differentiate between permutations and combinations with suitable examples.<br>**Apply:** Solve simple problems involving arrangements, selections and the relationship between permutations and combinations.<br>**Analyze:** Compare permutations and combinations in different situations. |
| | | **REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Computer Science

| **Book Prescribed: Computer Science with Python (Sumita Arora by Dhanpat Rai Publication)** | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | Chapter No. 1: Computer System Organization | **Students will be able to:**<br>**Remember:** Key components of a computer system and recall basic terminology related to computer architecture<br>**Understand**: The function of each component in a computer system<br>**Apply:** The acquired knowledge to demonstrate how different units (input, processing, output, storage) work together in real-life scenarios<br>**Analyze**: The difference between primary and secondary memory in terms of speed and use |
| | | Chapter No. 2: Data Representation | **Students will be able to:**<br>**Remember**: Number systems such as binary, decimal, octal, and hexadecimal and their inter conversion<br>**Understand**: The conversion process between number systems and interpret binary codes and ASCII values for characters<br>**Apply:** The gained knowledge to convert numbers between binary, decimal, octal, and hexadecimal systems<br>**Analyze:** Different number systems in terms of usage and efficiency |
| | **June** | **SUMMER BREAK** | |

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| | **July** | Chapter No 4<br>Introduction to problem Solving | **Students will be able to:**<br>**Remember:** Steps of the problem-solving process (e.g., understanding the problem, planning the solution, executing the plan, reviewing the results)<br>**Understand:** The importance of problem-solving in computer science and daily life<br>**Apply:** Flowchart or pseudo code to represent the steps of a simple problem<br>**Analyze:** The effectiveness of a problem-solving approach based on time, accuracy, and complexity |
| | | Chapter No. 5 :<br>Getting Started with Python | **Students will be able to:**<br>**Remember:** Python and identify it as a high-level, interpreted programming language<br>**Understand:** How Python differs from other programming languages (e.g., its simplicity, readability)<br>**Apply:** Execute Python code and correct basic syntax errors<br>**Analyze**: Break a problem into smaller steps and write a Python program to solve it using appropriate syntax and logic |
| | | Chapter No. 6 :<br>Python Fundamentals | **Students will be able to:**<br>**Remember:** Key Python concepts: variables, data types, operators, and expressions<br>**Understand:** How Python handles different data types during operations<br>**Apply:** Accept input from users and process it using expressions and operators<br>**Analyze:** Debug Python code involving variables, data types, and operators |
| | | Chapter No. 9:<br>flow of Control<br>(up to control statements) | **Students will be able to:**<br>**Remember:** The three types of control structures in Python<br>**Understand:** How conditional constructs change the flow of a Python program<br>**Apply:** Solve real-world problems using control flow statements (e.g., check for even/odd, number guessing game, grade calculator)<br>**Analyze:** Trace the execution of Python programs with multiple control statements and predict the output |
| | **August** | **PERIODIC TEST I** | |
| | | Chapter No. 3 :<br>Boolean Logic | **Students will be able to:**<br>**Remember:** Definition of Boolean logic and its basic operations (AND, OR, NOT) ; Recall truth tables for basic Boolean operations and list Boolean laws and identities (e.g., De Morgan's Theorems)<br>**Understand:** The function of each Boolean operator and interpret truth tables and Boolean expressions<br>**Apply:** Boolean logic in real-world scenarios such as conditional programming and logic gates<br>**Analyze:** Digital circuits or logical conditions using Boolean expressions |
| | **September** | **TERM I EXAMINATION** | |
| **Term -II** | | Chapter No. 14 :<br>Cyber Safety | **Students will be able to:**<br>**Remember:** Terms such as cyber safety, cyberbullying, phishing, |

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| | | | malware, and identity theft<br>**Understand:** The importance of cyber safety in day-to-day digital life<br>**Apply:** Safety measures while using social media, emails, and online shopping<br>**Analyze:** Real-life scenarios where cyber safety is compromised and suggest preventive measures |
| | **October** | Chapter No. 15 :<br>Society , Law and Ethics | **Students will be able to:**<br>**Remember:** Key terms such as intellectual property rights (IPR), plagiarism, cyber law, data protection, and digital footprint, major cyber laws applicable in India (e.g., IT Act 2000) and different types of unethical practices in digital environments (e.g., software piracy, copyright violation)<br>**Understand:** The importance of ethical behaviour in the use of technology<br>**Apply:** Basic legal and ethical concepts in real-life<br>**Analyze:** Case studies involving misuse of technology and their societal impact |
| | | Chapter No. 7:<br>Data Handling | **Students will be able to:**<br>**Remember:** basic data structures used in Python (e.g., lists, tuples).<br>**Understand:** the need for organizing and handling data in programs.<br>**Apply:** Perform data operations such as sorting, filtering, and aggregating<br>**Analyze:** Debug and improve programs that involve incorrect data handling or inefficient data processing. |
| | | Chapter No. 9:<br>flow of Control<br>(Loops statements) | **Students will be able to:**<br>**Remember:** The loops statements in Python<br>**Understand:** How Iteration change the flow of a Python program<br>**Apply:** Solve real-world problems using<br>**Analyze:** Trace the execution of Python programs with multiple looping statements and predict the output |
| | **November** | Chapter No. :8<br>Introduction to Python Module | **Students will be able to:**<br>**Remember:** Different types of modules (built-in and user-defined)<br>**Understand:** The need for using modules in Python programming<br>**Apply:** The gained knowledge of functions from standard modules to solve real-life problems (e.g., generating random numbers, date/time handling)<br>**Analyze:** A program to determine how modular design improves maintainability and reusability |
| | | Chapter No. :10<br>String Manipulation | **Students will be able to:**<br>**Remember:** String declaration, indexing, and slicing ; commonly used string functions and methods e.g., len(), upper(), lower(), find(), replace()<br>**Understand:** How string indexing and slicing work<br>**Apply:** The gained knowledge to perform string operations such as concatenation, repetition, comparison, and slicing<br>**Analyze:** The difference between mutable and immutable data types using strings as an example |
| | | Chapter No.: 11<br>List Manipulation | **Students will be able to:**<br>**Remember:** The syntax for creating a list and accessing elements using indexing and list of commonly used list functions and methods e.g., |

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| | | | append(), insert(), remove(), pop(), sort(), reverse()<br>**Understand:** How indexing and slicing work in lists<br>**Apply:** The gained knowledge to use list methods in Python programs to manipulate and process data<br>**Analyze**: The appropriate list methods or techniques for specific problem-solving scenarios |
| | **December & January** | **PERIODIC TEST II** | |
| | | Chapter No.: 12 Tuple Manipulation | **Students will be able to:**<br>**Remember:** The syntax for creating tuples and accessing elements using indexing<br>**Understand:** The significance of immutability in tuples<br>**Apply:** The gained knowledge to perform operations such as slicing, concatenation, repetition, and membership tests on tuples<br>**Analyze:** Various scenarios where using tuples is more appropriate than lists |
| | | Chapter No.: 13 Dictionaries | **Students will be able to:**<br>**Remember:** The syntax for creating dictionaries using key-value pairs<br>**Understand:** The differences between lists, tuples, and dictionaries<br>**Apply:** The gained knowledge to perform operations such as adding, updating, retrieving, and deleting key-value pairs<br>**Analyze**: Program logic to determine the correct usage of dictionary methods |
| | | **REVISION OF FINAL EXAMINATION** | |
| | | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Physical Education

| **Book Prescribed: SP Book** | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | UNIT-1<br>Changing Trends and Career in Physical Education | **Students will be able to:**<br>**Remember:** The definition of physical education and its importance<br>**Understand:** How physical education has evolved over the years and the qualifications and skills required for various careers<br>**Apply:** The gained knowledge of fitness trends to create a basic fitness routine<br>**Analyze:** Traditional and modern approaches to physical education and how global trends are shaping career opportunities in choosing physical education as a profession |
| | | UNIT-2<br>Olympic Value Education | **Students will be able to:**<br>**Remember:** The history and origin of the Olympic Games and the important Olympic movements and personalities and symbols of the Olympic<br>**Understand:** The meaning and importance of each Olympic value and understand the role of sports in character and moral development<br>**Apply:** Olympic values in school or sports activities and organize small games or events that reflect Olympic spirit and values<br>**Analyze:** Real-life examples where sports helped overcome conflict or brought social change and evaluate how effectively Olympic values are practiced in modern sports |

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| | **June** | **SUMMER BREAK** | |
| | **July** | UNIT-3<br>Yoga | **Students will be able to:**<br>**Remember:** Definition of yoga and its origin and list different types of yoga<br>**Understand:** The purpose of yoga for physical, mental, and spiritual well-being<br>**Apply:** The gained knowledge to perform simple yoga asanas and breathing exercises with correct technique<br>**Analyze**: The impact of yoga on health conditions like anxiety, obesity, or back pain and its reflection on personal changes through regular practice |
| | | UNIT-4<br>Physical Education and Sports for Children with Special Needs | **Students will be able to:**<br>**Remember:** The different types of disabilities and definition of Children with Special Needs (CWSN)<br>**Understand:** The importance of physical activity for children with special needs and how to modify activities and equipment to suit individual needs<br>**Apply:** The gained knowledge to create or modify a basic physical activity to suit children with different abilities by using inclusive strategies in games or group activities<br>**Analyze:** Traditional and inclusive physical education approaches, challenges faced by CWSN in accessing sports opportunities |
| | **August** | **PERIODIC TEST I** | |
| | | UNIT-5<br>Physical Fitness, Wellness and Lifestyle | **Students will be able to:**<br>**Remember:** Key terms -Define physical fitness, wellness, and a healthy lifestyle and the components of physical fitness, types of wellness , healthy habits and lifestyle factors<br>**Understand:** The relationship between physical activity, wellness and quality of life and understand how wellness is a lifelong process that includes physical and mental balance<br>**Apply:** The gained knowledge to create and follow a daily fitness routine and set realistic goals for improving personal fitness, also use tools to track progress<br>**Analyze:** Different types of fitness routines and their long-term impacts and how lifestyle choices affect academic performance, mood, and physical health |
| | **September** | **TERM I EXAMINATION** | |
| **TERM-II** | **October** | UNIT-6<br>Test, Measurement and Evaluation | **Students will be able to:**<br>**Remember:** Key terms: test, measurement, evaluation, and assessment and types of tests used in physical education<br>**Understand:** The difference between testing, measurement, and evaluation and importance of assessments in physical education<br>**Apply:** The gained knowledge to conduct, record and analyze test results to evaluate personal fitness levels and apply various assessment tools to track progress in physical education activities.<br>**Analyze:** Different testing methods and their reliability and validity in assessing fitness and evaluate how different factors influence test outcomes and performance |
| | | UNIT-7<br>Fundamental of Anatomy and Physiology in Sports | **Students will be able to:**<br>**Remember:** Major systems of the human body - muscles, bones, joints, and organs involved in sports activities and the basic functions of each system related to movement and performance<br>**Understand:** How different systems of the body work together during |

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| | | | physical activity, role of muscles and joints in movement, flexibility, and strength<br>**Apply:** The acquired knowledge of muscles and joints to perform safe warm-ups and cool-downs and improve performance in sports; Create basic fitness routines considering anatomical and physiological principles<br>**Analyze:** The role of different muscle groups in various sports movements and how the body responds to training |
| | **November** | UNIT-8<br>Fundamental of Kinesiology and Biomechanics in Sports | **Students will be able to:**<br>**Remember:** Meaning of kinesiology and biomechanics, basic principles of motion and key laws of motion<br>**Understand**: How muscles, bones, and joints work together to create movement and the role of gravity, balance, and coordination<br>**Apply:** Principles of biomechanics to improve technique in a specific sport<br>**Analyze**: Different movement techniques and their effectiveness in performance and how improper biomechanics may lead to injury |
| | **December & January** | **PERIODIC TEST II** | |
| | | UNIT-9<br>Psychology and Sports | **Students will be able to:**<br>**Remember:** Meaning of sports psychology and its role in physical education and sports performance<br>**Understand:** The importance of psychological readiness in sports, the role of goal-setting, visualization, and focus in improving performance and the impact of personality traits on an athlete's behavior and team dynamics<br>**Apply:** Psychological techniques like deep breathing, positive self-talk, or visualization during practice or competition to develop strategies to improve focus and reduce performance anxiety<br>**Analyze:** The mental strengths and weaknesses of athletes based on behavior or performance in sport and how different psychological states affect individual and team performance |
| | | UNIT-10<br>Training and Doping in Sports | **Students will be able to:**<br>**Remember:** The term training and doping in the context of sports, types of physical training, identification of banned substances and agencies like WADA<br>**Understand:** The principles of sports training, physical and psychological effects of doping on athletes and the ethical, legal and health-related consequences of doping<br>**Apply:** Safe training techniques to enhance endurance, strength, and flexibility and promote awareness about the risks of doping among peer values<br>**Analyze:** Real-world doping cases and their impact on athletes' careers and reputations and the effects of legal training methods vs. illegal performance-enhancing methods |
| | | **REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Painting

| Book Prescribed: An Introduction of Indian Art Part -1 +Panoramic Indian Painting + A2 Size Practical Files-2 | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | Chapter No. :<br>Fundamentals of Art | **Students will be able to:**<br>**Remember:** The key elements and principles of art, including line, shape, form, space, texture, value, and colour<br>**Understand:** How artists use these fundamentals to communicate meaning and explain the significance and function of various elements in artistic composition<br>**Apply:** The acquired knowledge to demonstrate the use of basic elements and principles in creating simple art compositions<br>**Analyze:** How the fundamentals are employed across various styles and periods of art. |
| | **June** | **SUMMER BREAK** | |
| | **July** | Chapter No. :<br>Arts of Indus Valley Civilization | **Students will be able to:**<br>**Remember:** The key features and archaeological findings from the Indus Valley Civilization Identify prominent sites such as Mohenjo-daro, Harappa, and Lothal.<br>**Understand:** The significance of seals, terracotta figurines, sculptures, and pottery in the Indus Valley.The artistic and technical excellence achieved in this civilization.<br>**Apply**: The stylistic features and cultural influences in Indus Valley artifacts. The motifs and forms of the Indus Valley to later Indian art traditions.<br>**Analyze:** The role of art in the socio-economic and religious practices of the Indus people. The contribution of the Indus Valley to the evolution of Indian art. |
| | | Chapter No. :<br>The Pre-Historic rock Paintings | **Students will be able to:**<br>**Remember:** The major prehistoric sites and examples of rock art in India and globally and recall the historical timeline and cultural context of prehistoric paintings<br>**Understand**: The materials, tools, and techniques used by prehistoric artists<br>**Apply:** The acquired knowledge to recreate a composition inspired by Pre-Historic rock painting techniques using natural or traditional materials<br>**Analyze:** The cultural and historical significance of rock art in early human civilizations |
| | **August** | **PERIODIC TEST I** | |
| | | Chapter No. :<br>Buddhist, Jain and Hindu Art | **Students will be able to:**<br>**Remember:** The important monuments, sculptures, and architectural styles from Buddhist, Jain, and Hindu traditions. The significant sites such as Sanchi, Ajanta, Ellora, and Khajuraho.<br>**Understand:** The iconography, symbolism, and stylistic developments of each religious tradition. The evolution of temple architecture and narrative sculpture.<br>**Apply:** The differences and similarities in motifs and structures across the three traditions. The knowledge of symbolic representation to analyze artwork.<br>**Analyze:** The role of religion and patronage in the growth of Indian art. |
| | **September** | **TERM I EXAMINATION** | |

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| **TERM-II** | **October & November** | Temple Sculpture, Bronze and Aspects of Indo-Islamic Architecture | **Students will be able to:**<br>**Remember:** The origin and development of temple sculpture and bronze art in India and identification of important temples and sculptures belonging to different dynasties and regions<br>**Understand:** The significance of temple sculpture and bronze art in Indian cultural and religious traditions and how Islamic principles and Indian traditions merged in Indo-Islamic architecture<br>**Apply:** the gained knowledge to prepare drawings or models showing elements like domes, arches, minarets, and carvings and present case studies of famous monuments such as Brihadeeswara Temple, Nataraja bronze, and Qutub Minar<br>**Analyze:** Temple architecture with Indo-Islamic architectural forms and examine how materials, techniques, and patronage influenced the art and architecture of the period |
| | **December & January** | **PERIODIC TEST II**<br>**REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Hindustani Music Vocal

| **Book Prescribed: Sangeet Anand + Sangeet Shelly Practical File (Unique Publications)** | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | Unit 1<br>Naad, Shruti, Swar, Saptak, Thaat, Jaati, Laya, Taal, Margi Sangeet Desi Sangeet,Raga. | **Students will be able to:**<br>**Remember:** Key terms related to Hindustani Music (e.g., raga, tala, swara, laya)<br>**Understand**: Basic terms of Indian Classical Music<br>**Apply:** The gained understanding of Swaras and Talas to create different types of compositions in Indian classical Music<br>**Analyze:** The structure and composition of Hindustani Music pieces |
| | | Unit 4<br>Description of prescribed Talas (Teentala, Ektala) with Tala Notation in Thah, Dugun, and Chaugun<br>Knowledge of the structure of Tanpura | **Students will be able to:**<br>**Remember**: The prescribed notation system of Ektaal, Teentaal along with their Layakaries ; The structure of Tanpura<br>**Understand:** The concept of Thah, Dugun and Chaugun in Hindustani Music<br>**Apply:** The acquired knowledge of Talas and rhythmic patterns in vocal performances<br>**Analyze:** Different Talas and their applications and the importance of Tanpura in Hundustani Music |
| | | Unit 2:<br>Brief history of Khayal<br>Brief study of Dhrupad and Tarana | **Students will be able to:**<br>**Remember:** Key features and historical background of Dhrupad Khayal and Tarana<br>**Understand:** The description of role of each form in Hindustani Music<br>**Apply:** The knowledge of these forms in vocal performances<br>**Analyze:** The significance of each form in Hindustani Music's development |

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| | **June** | **SUMMER BREAK** | |
| | **July** | Unit 5<br><br>Critical study of Prescribed Ragas along with Recognizing Ragas from phrases of Swaras and elaboration them. Writing in notation the compositions of Raag Bihag and Bhimplasi | **Students will be able to:**<br>**Remember:** Thaat, time of singing, and important swaras (Vadi–Samvadi) and identify aroha–avaroha, pakad, and challan of each raga<br>**Understand:** How theoretical rules are reflected in practical rendition<br>**Apply:** The acquired knowledge to demonstrate raga compositions (bandish, chota khayal) in appropriate taal<br>**Analyze:** A performanceand its break down into theoretical components—aroha, avaroha, nyas swar, chalan, and taan structure |
| | **August** | **PERIODIC TEST I** | |
| | | Unit 3<br><br>Brief study of Musical Elements in Natya Shastra<br>Life sketch and contribution of Tansen<br>V.N.Bhatkhande and V.D.Paluskar | **Students will be able to:**<br>**Remember:** The main musical elements of Natya Shastra, important facts from the life and works of Tansen, V.N. Bhatkhande, and V.D. Paluskar<br>**Understand:** The importance of Natya Shastra in shaping Indian music and the contributions of Tansen, Bhatkhande, and Paluskar<br>**Apply:** The gained knowledge to relate Bhatkhande's Thaat system to present-day Raga classification and connect Paluskar's efforts in spreading music education to modern institutions<br>**Analyze:** The contributions of Tansen, Bhatkhande, and Paluskar in the development of Hindustani music and critically examine how the Natya Shastra influenced later music theory and practice |
| | **September** | **TERM I EXAMINATION** | |
| **TERM-II** | **October** | **Unit 5**<br><br>Critical study of Prescribed Ragas along with Recognizing Ragas from phrases of Swaras and elaboration of them. Writing in notation the compositions of Raag Bhairavi | **Students will be able to:**<br>**Remember:** Thaat, time of singing, and important swaras (Vadi–Samvadi) and identify aroha–avaroha, pakad, and chalan of raga Bhairavi.<br>**Understand:** How theoretical rules are reflected in practical rendition<br>**Apply:** The acquired knowledge to demonstrate raga compositions (bandish, chota khayal) in appropriate taal<br>**Analyze:** A performance and its break down into theoretical components—aroha avaroha, nyas swar, chalan, and taan structure. |
| | **November** | **Unit 4**<br><br>**Description of prescribed Tala Chartaal with Tala Notation in Thah, Dugun, and Chaugun** | **Students will be able to:**<br>**Remember:** The prescribed notation system of Chartaal along with their Layakaries.<br>**Understand:** The concept of Thah, Dugun and Chaugun in Hindustani Music<br>**Apply:** The acquired knowledge of Talas and rhythmic patterns in vocal<br>**Analyze:** Different Talas and their applications and the importance of Tanpura in |
| | **December & January** | **PERIODIC TEST II**<br>**REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Web Application

| Book Prescribed: CBSE Resources | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | Chapter No. :1<br>(Part-A)<br>Communication Skills-III | **Students will be able to:**<br>**Remember:** The definition of communication, types of communication<br>**Understand**: The importance of communication, barriers to communication<br>**Apply**: The gained knowledge to apply communication skills and communication techniques in real-life situations<br>**Analyze**: Different communication styles, analyzing effective and ineffective communication |
| | | Chapter No. : 2<br>(Part-B)<br>Website Building Using HTML and CSS<br>(Upto image ) | **Students will be able to:**<br>**Remember**: Basic tags and elements of HTML, basic properties and selectors of CSS<br>**Understand**: The structure of a web page<br>**Apply**: The acquired knowledge to create simple web pages using HTML, Style web pages (using CSS) to make them visually appealing<br>**Analyze**: Different errors in HTML and CSS code and the way to fix them |
| | **June** | **SUMMER BREAK** | |
| | **July** | Chapter No. : 2<br><br>Self Management Skills-III | **Students will be able to:**<br>**Remember:** The basic facts, definitions, and concepts related to self-management<br>**Understand:** The importance of self-motivation and self-management<br>**Apply:** The techniques of self-management in daily life situations<br>**Analyze:** The complex behaviour patterns or problems to understand causes and effects |
| | | Chapter No. : 2<br>(Part-B)<br>Website Building Using HTML and CSS | **Students will be able to:**<br>**Remember**: Basic tags and elements of HTML, basic properties and selectors of CSS<br>**Understand**: The structure of a web page<br>**Apply**: The acquired knowledge to create simple web pages using HTML, Style web pages (using CSS) to make them visually appealing<br>**Analyze**: Different errors in HTML and CSS code and the way to fix them |
| | **August** | **PERIODIC TEST I** | |
| | | Chapter No. :1<br>(Part-B) :<br>Basics of Networking | **Students will be able to:**<br>**Remember**: Computer network and types of networks, network devices<br>**Understand**: The purpose and benefits of networking<br>**Apply**: The acquired knowledge to determine the best network type for a given scenario (e.g., school vs. city-wide office)<br>**Analyze:** The advantages and disadvantages of various topologies. |
| | **September** | **TERM I EXAMINATION** | |

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| **TERM-II** | **October** | Chapter No. : 3<br>(Part-A)<br>ICT Skills-III | **Students will be able to:**<br>**Remember**: Key definitions entrepreneur, list qualities, functions, and types<br>**Understand**: The importance, difference from employee and role of innovation<br>**Apply:** The gained knowledge to use skills to make a business idea, solve problems, lead a team<br>**Analyze**: Different entrepreneurs and their success stories, study risks and rewards |
| | | Chapter No. : 4<br>(Part - B)<br>JavaScript Part 1 | **Students will be able to:**<br>**Remember**: What JavaScript is, its syntax, variables, and data types<br>**Understand**: How JavaScript makes web pages interactive and dynamic<br>**Apply**: The gained knowledge to write simple scripts using functions, loops, and events<br>**Analyze**: Errors, compare code outputs, and optimize performance |
| | **November** | Chapter No. : 5<br>(Part- A)<br>Green Skills-III | **Students will be able to:**<br>**Remember:** 3Rs – Reduce, Reuse, Recycle<br>**Understand:** Why waste management is important<br>**Apply:** The gained knowledge to segregate and recycle waste properly<br>**Analyze**: Effects of poor waste management on environment |
| | | Chapter No. : 3<br>(Part-A)<br>Entrepreneurial Skills-III | **Students will be able to:**<br>**Remember:** The concept of entrepreneurship and entrepreneur<br>**Understand:** The importance of entrepreneurship in economic development<br>**Apply:** The acquired knowledge to identify opportunities in daily life that could become small business ideas<br>**Analyze:** Different entrepreneurs and analyze what made them successful |
| | **December & January** | Chapter No. : 3<br>(Part- B) : Multimedia Design<br>Using GIMP | **Students will be able to:**<br>**Remember:** GIMP and its tools (paint, text, layers, selection, etc.).<br>**Understand:** How GIMP helps in editing and creating multimedia designs<br>**Apply:** The gained knowledge to use GIMP to edit images, add text, apply filters, and create designs<br>**Analyze:** Different elements of design, image quality and visuals |
| | | **PERIODIC TEST II**<br>**REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Library & Information Science

| Book Prescribed: CBSE | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | **April & May** | Chapter No. : Communication Skills- III (Employability Skills) | **Students will be able to**:<br>**Remember:** The do's and don't of good communication<br>**Understand:** The importance of good communication to enhance personality<br>**Apply:** The skill of communication for impactful conversation<br>**Analyze**: The need of good communication in one's life |
| | | Chapter No. : Library Information and Society - Role and its implications | **Students will be able to:**<br>**Remember:** The key terms like library, information, society, and knowledge economy<br>**Understand:** The role of libraries in social, educational, and cultural development<br>**Apply**: The gained knowledge to demonstrate how libraries support digital literacy and lifelong learning<br>**Analyze:** How societal changes (technology, economy, education) impact libraries |
| | **July** | Chapter No. – 2<br><br>Self - Management Skills III (Employability Skills) | **Students will be able to**:<br>**Remember**: The definition of self-management and identify its key components (e.g., goal-setting, time management, emotional regulation)<br>**Understand:** The importance of self-management in personal and academic life through group discussion<br>**Apply:** The gained knowledge to create a daily or weekly self-management plan that includes goals, schedules, and personal reflection points<br>**Analyse:** A scenario or case study involving poor self-management and identify what went wrong and how it could be improved |
| | | Chapter No. : 2 Organization of Library Resources:Basics | **Students will be able to:**<br>**Remember**: The key concepts and terminology related to organizing library resources.<br>**Understand:** The purpose and function of organizing systems in libraries.<br>**Apply:** The knowledge in real-world or simulated cataloging and classification tasks.<br>**Analyze:** The understanding to break down complex cataloging/classification processes and evaluate them |
| | **August** | **PERIODIC TEST I** | |
| | | Chapter No. : 3 ICT Skills – III (Employability Skills) | **Students will be able to:**<br>**Remember:** The basic terms, tools, and functions related to ICT tools and software<br>**Understand:** The concept of different ICT tools which help in managing information effectively<br>**Apply:** The gained knowledge to use ICT tools to create, organize, and share information<br>**Analyze:** Different ICT tools based on purpose, usability, and efficiency. |
| | | Chapter No.3 Reference and Information Sources | **Students will be able to**<br>**Remember**: The various types of reference sources<br>**Understand**: The purpose and content of various reference sources |

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| | | | **Apply**: The gained knowledge to explore reference sources for specific information needs<br>**Analyze:** The effectiveness of different reference sources |
| | **September** | **TERM I EXAMINATION** | |
| **TERM-II** | **October** | Chapter No. : 4<br>Computer Applications in Libraries : Basics | **Students will be able to:**<br>**Remember :** Basic ICT tools and terms (e.g., hardware, software, internet, email)<br>**Understand:** The concept of different ICT tools which help in managing information effectively<br>**Apply:** The gained knowledge to use ICT tools to create, organize, and share information<br>**Analyze:** Different ICT tools based on purpose, usability, and efficiency. |
| | **November** | Chapter No. : 4<br>Entrepreneurial Skills – III (Employability Skills) | **Students will be able to:**<br>**Remember:** Basic concepts and terms related to entrepreneurship<br>**Understand:** The characteristics and importance of entrepreneurship<br>**Apply:** Entrepreneurial thinking to real-life or simulated situations<br>**Analyze:** Challenges and opportunities in entrepreneurial ventures |
| | | Chapter No. : 5<br>Green Skills – III (Employability Skills) | **Students will be able to:**<br>**Remember:** Terms and concepts related to green skills and sustainability<br>**Understand**: The importance of green skills and sustainable practices in daily life<br>**Apply:** The gained knowledge to practice eco-friendly actions and suggest improvements for their surroundings<br>**Analyze:** Connections among ideas; understanding the structure |
| | **December & January** | **PERIODIC TEST II**<br>**REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |

# Marketing

| **Book Prescribed: CBSE Notes** | | | |
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| | **Months** | **Content** | **Learning Outcomes** |
| **TERM-I** | | Unit-1<br>Introduction to Marketing | **Students will be able to:**<br>**Remember**: Meaning of marketing, market, customer, marketing mix (4Ps), functions of marketing<br>**Understand:** Difference between selling and marketing; concept of customer satisfaction and modern marketing |

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| | **April & May** | | **Apply**: The gained knowledge to identify marketing strategies used by companies in real life<br>**Analyze:** Marketing mix (Product, Price, Place, Promotion) of different products |
| | | Unit I- Communication Skills<br><br>(Employability Skills) | **Students will be able to:**<br>**Remember**: The key terms like verbal, non-verbal, written, and visual communication<br>**Understand:** The importance of tone, clarity, listening, and feedback in effective communication<br>**Apply**: Proper communication in real-life banking scenarios (e.g., dealing with customers)<br>**Analyze:** The communication barriers and suggest improvements |
| | **June** | **SUMMER BREAK** | |
| | **July** | Unit – II<br>Marketing Environment<br>(Subject specific skill) | **Students will be able to:**<br>**Remember:** Meaning and components of marketing environment; micro and macro environment<br>**Understand:** The impact of internal and external environmental factors on marketing decisions<br>**Apply:** The knowledge to identify environmental influences on brands and businesses<br>**Analyze:** The effect of competition, technology, economy, and social trends on marketing strategies |
| | **August** | **PERIODIC TEST I** | |
| | | Unit-III<br>Marketing Segmentation, Targeting& Positioning<br>(Subject specific skills) | **Students will be able to:**<br>**Remember:** Meaning of market segmentation, targeting and positioning; bases of segmentation<br>**Understand:** The importance of dividing markets and selecting target customers<br>**Apply:** STP concepts to identify target audiences of various brands<br>**Analyze:** Positioning strategies adopted by companies in competitive markets |
| | | Unit-II<br>Self-Management Skills<br>(Employability Skill) | **Students will be able to:**<br>**Remember:** The concepts of self-awareness, self-confidence, motivation and stress management<br>**Understand:** The importance of positive attitude, goal setting and time management<br>**Apply:** Self-management techniques in personal and academic life<br>**Analyze:** Different situations involving stress and ways to handle them effectively |
| | **September** | **TERM I EXAMINATION** | |
| **TERM-II** | | Unit-III<br>ICT Skills<br>(Employability Skill) | **Students will be able to:**<br>**Remember:** Basic computer operations, internet usage and digital tools<br>**Understand:** The role of ICT in communication, education and business<br>**Apply:** ICT skills for presentations, data handling and online collaboration<br>**Analyze:** The advantages and limitations of digital technologies in daily life |

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| | **October** | Unit-IV<br>Fundamentals of Marketing Mix<br>(Subject specific skill) | **Students will be able to:**<br>**Remember:** The elements of marketing mix – Product, Price, Place and Promotion<br>**Understand:** The relationship between the 4Ps and successful marketing strategies<br>**Apply:** Marketing mix concepts in real-life product and service situations<br>**Analyze**: Different promotional and pricing strategies used by companies |
| | **November** | Unit-V<br>Consumer Behaviour<br>(Subject specific skill) | **Students will be able to:**<br>**Remember:** Meaning and factors influencing consumer behaviour<br>**Understand:** The buying decision process and consumer needs and wants<br>**Apply:** Consumer behaviour concepts in analysing purchasing decisions<br>**Analyze**: Consumer preferences and the impact of advertisements culture and social influence on buying behaviour |
| | | Unit-IV<br>Entrepreneurial Skills<br>(Employability skill) | **Students will be able to:**<br>**Remember:** Meaning of entrepreneurship, entrepreneur and entrepreneurial qualities<br>**Understand**: The importance of innovation, risk-taking and business opportunities<br>**Apply:** Entrepreneurial skills in identifying simple business ideas<br>Analyze: Success stories and challenges faced by entrepreneurs |
| | **December & January** | **PERIODIC TEST II** | |
| | | Unit-V<br><br>Green Skills<br>(Employability Skills) | **Students will be able to:**<br>**Remember:** Concepts of environment, sustainability and green economy<br>**Understand:** The importance of conserving natural resources and sustainable practices<br>**Apply:** Eco-friendly practices in school and daily life<br>**Analyze:** Environmental challenges and methods to promote sustainability |
| | | **REVISION OF FINAL EXAMINATION** | |
| | **February & March** | **ANNUAL PRACTICAL AND ANNUAL EXAMINATION** | |