DELHI PUBLIC SCHOOL PARADIP REFINERY

CURRICULUM FOR SESSION 2021-2022

CLASS – XI SCIENCE

ENGLISH

MONTH	NO. OF PERIODS	CHAPTER NO.	CHAPTER	SUB - TOPIC
MAY	2	1	The Portrait of a Lady	Intro, Explanation & Discussion of qns
	1		Determiners	Exercises
	2	Poem	A Photograph	Intro, Explanation & Discussion of qns
	1		Reading Skills-Comprehension	Classwork
	2	1	The Summer of the Beautiful White Horse	Intro, Explanation & Discussion of qns
	1		Error Correction	Exercises
	2		Poster Making	Intro, Explanation & Class work
JUNE	2	2	We're not Afraid to Die	Intro, Explanation & Discussion of qns
	2		Article Writing	Intro, Explanation & Class work
	1		Modals	Exercises
	2		Note Making	Intro, Explanation & Class work
	2		Speech Writing	Intro, Explanation & Class work
	2	3	Discovering Tut	Intro, Explanation & Discussion of qns
JULY	2	2	The Address	Intro, Explanation & Discussion of qns
	2		Letter of enquiry	Intro, Explanation & Class work
	2	poem	The Laburnum Top	Intro, Explanation & Discussion of qns
	1		Clauses	Exercises
	3		Advertisement	Intro, Explanation & Class work
	2	3	Ranga's Marriage	Intro, Explanation & Discussion of qns
	1		Change of Voice	Exercises
	2		Placing an Order	Intro, Explanation & Class work
	2		Notice Writing	Intro, Explanation & Class work

	2		Debate Writing	Intro, Explanation & Class work
AUGUST	2	4	Landscape of the Soul	Intro, Explanation & Discussion of qns
	2	4	Albert Einstein at School	Intro, Explanation & Discussion of qns
	1		Editing/Cloze passages	Exercises
	2	poem	The Voice of the Rain	Intro, Explanation & Discussion of qns
	2		Letter of Cancellation	Intro, Explanation & Class work
	2	5	The Ailing Planet	Intro, Explanation & Discussion of qns
	2		Letter of Complaint	Intro, Explanation & Class work
	2		Job Application	Intro, Explanation & Class work
	2		Report Writing	Intro, Explanation & Class work
	1		Reordering of Sentences	Exercises
SEPTEMBER	2	6	The Browning Version	Intro, Explanation & Discussion of qns
	2	poem	Childhood	Intro, Explanation & Discussion of qns
	4	5	Mother's Day	Intro, Explanation & Discussion of qns
	1		Transformation of Sentences	Exercises
OCTOBER	3	6	The Ghat of the only World	Intro, Explanation & Discussion of qns
	3	7	The Adventure	Intro, Explanation & Discussion of qns
	2	8	Silk Road	Intro, Explanation & Discussion of qns
NOVEMBER	2	poem	Father to Son	Intro, Explanation & Discussion of qns
	2	7	Birth	Intro, Explanation & Discussion of qns
	2	8	The Tale of the Melon city	Intro, Explanation & Discussion of qns

PHYSICS

MONTH	NO. OF PERIODS	CHAPTER NO.	CHAPTER	SUB - TOPIC
MAY	20	1 &2	Ch-1 : Physicsal Word -Basic Mathematics. Ch-2: Units and Measurement	Physics-scope and excitement; nature of physical laws; Physics, technology and society. Vector Analysis , Trignometry, Basic Mathematics. Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. Length, mass and time measurements; accuracy and precision of measuring instruments; errors in measurement; significant figures.Dimensions of physical quantities, dimensional analysis and its applications.
JUNE	12	3&4	Ch-3: Motion in a Straight Line and Ch-4: Motion in a Plane	Frame of reference, Motion in a straight line: Position-time graph, speed and velocity.Elementary concepts of differentiation and integration , average speed and instantaneous velocity,uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion. Motion in a plane, cases of uniform velocity and uniform accelerationprojectile motion, uniform circular motion.
JULY	24	4 &5	Ch-4: Motion in a Plane and Ch-5:Laws of Motion	Ch-4: 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, relative velocity, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors.Intuitive concept of force, Inertia, Ch-5: 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 circularmotion.

AUGUST	23	6&7	Ch-6 Work ,Energy and Power Ch-7: System of Particles and Rotational Motion	Ch-6: Work done by a constant force and a variable force; kinetic energy, workenergy theorem, power.Notion of potential energy, potential energy of a spring, conservative forces: conservation of mechanical energy , nonconservative forces: motion in a vertical circle; elastic and inelastic collisions in one and two dimensions. Ch-7 : 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 and its applications.
SEPTEMBER	11	7	Ch-7: System of Particles and Rotational Motion	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 . Statement of parallel and perpendicularaxes theorems and their applications
OCTOBER	19	8 &9	Ch-8 Gravitation Ch-9 Mechanical Properties of Solids.	Ch-8 : Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth.Gravitational potential energy and gravitational potential, escape velocity,orbital velocity of a satellite, Geo-stationary satellites. Ch-9: Elastic behaviour, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity, Poisson's ratio; elastic energy.
NOVEMBER	20	10&11	Ch-10: Mechanical Properties of Fluids Ch-11: Thermal Properties of Matter	Ch-10 : Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure.Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise. Ch-11: Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat

				capacity.Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan'slaw, Greenhouse effect.
DECEMBER	20	12 &13	Ch-12 Thermodynamics Ch-13 : Kinetic Theory of Gases	Ch-12: Thermal equilibrium and definition of temperature , heat, work and internal energy. First law of thermodynamics, isothermal and adiabatic processes.Second law of thermodynamics: reversible and irreversible processes, Heat engine and refrigerator. Ch-13 : 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 and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.
JANUARY	23	14&15	Ch-14:Oscillations Ch-15:Waves	
FEBRUARY			Revision For Annual Examination	

CHEMISTRY

MONTH	NO. OF PERIODS	CHAPTER NO.	CHAPTER	SUB - TOPIC
MAY	12	Chapter-1	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.
JUNE	14	Chapter-2	STRUCTURE OF ATOM	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
JULY	8	Chapter-3	CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES	Significance of classification, brief history of the development of periodic table, modern periodic law and the present form of periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. Nomenclature of elements with atomic number greater than 100.
	14	Chapter–4	CHEMICAL BONDING AND MOLECULAR STRUCTURE	Valence electrons, ionic bond, covalent bond, bond parameters, Lewis 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	12	Chapter-5	STATES OF MATTER	Three states of matter, intermolecular interactions, types of bonding, melting and boiling points, role of gas laws in elucidating the concept of the molecule, Boyle's law, Charles law, Gay Lussac's law, Avogadro's law, ideal behaviour, empirical derivation of gas equation, Avogadro's number, ideal gas equation. Deviation from ideal behaviour, liquefaction of gases, critical temperature, kinetic energy and molecular speeds (elementary idea), Liquid State- vapour pressure, viscosity and surface tension (qualitative idea only, no mathematical derivations)
	16	Chapter–6	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, H, Hess's law of constant heat summation, enthalpy of bond□U and □measurement of 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 nonspontaneous processes, criteria for equilibrium. Third law of thermodynamics (brief introduction).
SEPTEMBER	14	Chapter–7	EQUILLIBRIUM	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).
OCTOBER	6	Chapter–8	REDOX REACTION	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.
	8	Chapter–9	HYDROGEN	Position of hydrogen in periodic table, occurrence, isotopes, preparation, properties and uses of hydrogen, hydrides-ionic covalent and interstitial; physical and chemical properties of water,heavy water, hydrogen peroxide -preparation, reactions and structure and use; hydrogen as a fuel
NOVEMBER	10	Chapter–10	S BLOCK ELEMENTS	Group 1 and Group 2 Elements General introduction, electronic configuration, occurrence, anomalous properties of the first element of each group, diagonal relationship, trends in the variation of properties (such as ionization enthalpy, atomic and ionic radii), trends in chemical reactivity with oxygen, water, hydrogen and halogens, uses.
	14	Chapter–11	P BLOCK ELEMENTS	General Introduction to p -Block Elements Group 13 Elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous properties of first element of the group, Boron - physical and chemical properties, some important compounds: Borax, Boric acid, Boron Hydrides, Aluminium: Reactions with acids and alkalies, uses. Group 14 Elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous behaviour of first elements. Carbon-catenation, allotropic forms, physical

				and chemical properties; uses of some important compounds: oxides. Important compounds of Silicon and a few uses: Silicon Tetrachloride, Silicones, Silicates and Zeolites, their uses.
DECEMBER	14	Chapter–12	ORGANIC CHEMISTRY:	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 hyper conjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.
JANUARY	12	Chapter-13	HYDROCARBONS	Classification of Hydrocarbons Aliphatic Hydrocarbons: Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, 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, 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 functional group in monosubstituted benzene. Carcinogenicity and toxicity.
	6	Chapter–14	ENVIRONMENTAL CHEMISTRY	Environmental pollution - air, water and soil pollution, chemical reactions in atmosphere, smog, major atmospheric pollutants, acid rain, ozone and its reactions, effects of depletion of ozone layer, greenhouse effect and global warming- pollution due to industrial wastes, green chemistry as an alternative tool for reducing pollution, strategies for control of environmental pollution
FEBRUARY	REVISION			

BIOLOGY

MONTH	NO. OF PERIODS	CHAPTER NO.	CHAPTER	SUB - TOPIC
MAY	**20**	**1,2,3,**	**Chapter-1: The Living World** **Chapter-2: Biological Classification** **Chapter-3: Plant Kingdom**	What is living? Biodiversity; Need for classification; taxonomy and systematics; concept of species and taxonomical hierarchy; binomial nomenclature; tools for study of taxonomy- museums, zoological parks, herbaria, botanical gardens, keys for identification. Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids. Salient features and classification of plants into major groups - Algae, Bryophyta, Pteridophyta, Gymnospermae and Angiospermae Plant life cycles and alternation of generations.
JUNE	**20**	**4, 8,10**	**Chapter-4: Animal Kingdom** **Chapter-8: Cell-The Unit of Life** **Chapter-10: Cell Cycle and Cell Division**	Basis of Classification; Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level. Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system- endoplasmic reticulum, ribosomes, golgi bodies, lysosomes, vacuoles; mitochondria, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus. Cell cycle, mitosis, meiosis and their significance

JULY	**25**	**16, 17, 18, 19**	**Chapter-16: Digestion and Absorption Chapter-17: Breathing and Exchange of Gases Chapter-18: Body Fluids and Circulation Chapter-19: Excretory Products and their Elimination**	Alimentary canal and digestive glands, role of digestive enzymes and gastrointestinal hormones; Peristalsis, digestion, absorption and assimilation of proteins, carbohydrates and fats; egestion; nutritional and digestive disorders - indigestion, constipation, vomiting, jaundice, diarrhoea. Introduction to respiratory organs in animals; Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volumes; disorders related to respiration - asthma, emphysema, occupational respiratory disorders. Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; circulatory pathways; 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. 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, diabetes insipidus; micturition; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.

AUGUST	**25**	**20, 21, 22**	**Chapter-20: Locomotion and Movement Chapter-21: Neural Control and Coordination Chapter-22: Chemical Coordination and Integration**	Types of movement – amoeboid, ciliary, flagellar, muscular; types of muscles; skeletal muscle, contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout. Neuron and nerves; Nervous system in humans - central nervous system and peripheral nervous system; generation, conduction and transmission of nerve impulse; reflex action; sensory perception; sense organs; elementary structure and functions of eye and ear. Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, thymus, adrenal, pancreas, gonads; hormones of heart, kidney and gastrointestinal tract; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease.
SEPTEMBER	**Revision and Mid Term Examination**			
OCTOBER	**15**	**11,12**	**Chapter-11: Transport in Plants Chapter-12: Mineral Nutrition**	Movement of water, gases and nutrients; cell to cell transport - diffusion, facilitated diffusion, active transport; plant-water relations, imbibition, water potential, osmosis, plasmolysis; long distance transport of water - Absorption, apoplast, symplast, transpiration pull, root pressure and guttation; transpiration, opening and closing of stomata; Uptake and translocation of mineral nutrients - Transport of food, phloem transport, mass flow hypothesis. Elementary idea of hydroponics as a method to study mineral nutrition; essential minerals, macro- and micronutrients and their role; deficiency symptoms; mineral toxicity; nitrogen metabolism, nitrogen cycle, biological nitrogen fixation.

NOVEMBER	**15**	**13,14,15**	**Chapter-13: Photosynthesis in Higher Plants** **Chapter-14: Cellular Respiration** **Chapter-15: Plant - Growth and Development**	Photosynthesis as a means of autotrophic nutrition; early experiments, site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis. Exchange of gases; do plants breathe; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient. Seed germination; characteristics, measurements and phases of plant growth, growth rate; conditions for growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA; seed dormancy; vernalisation; photoperiodism.
DECEMBER	**15**	**9,5**	**Chapter-9: Biomolecules** **Chapter-5: Morphology of Flowering Plants**	Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; concept of metabolism; Enzymes - properties, enzyme action, factors, classification, Co-factors. Morphology and modifications: Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of families: Fabaceae, Solanaceae and Liliaceae (to be dealt along with the relevant experiments of the Practical Syllabus).
JANUARY	**25**	**6,7**	**Chapter-6: Anatomy of Flowering Plants** **Chapter-7: Structural Organisation in Animals**	Anatomy and functions of different tissues and tissue systems in dicots and monocots. Secondary growth. Animal tissues; Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of an insect-cockroach (a brief account only).
FEBRUARY	**Revision and Final Term Examination**			

MATHEMATICS

MONTH	CHAPTER NO.	CHAPTER NAME	SUB TOPICS
MAY	5	➢ Complex Numbers ➢ Quadratic Equations	• Algebra of Complex Numbers • The Modulus and the Conjugate of a complex Number • Argand Plane and Polar Representation • Quadratic Equations • Quadratic Formula • Square root of a Complex Number.
JUNE	1	➢ Sets	• Sets and their Representations • The Empty Set • Finite and Infinite Sets • Equal Sets • Subsets • Power Set • Universal Set • Venn Diagram • Operations on Sets • Complement of a Set • Practical Problems on Union and Intersection of Two Sets
JULY	2 & 3	➢ Relations and Functions ➢ Trigonometric Functions	• Cartesian product of sets • Relations • Functions • Angles • Trigonometric Functions • Trigonometric Functions of Sum and Difference of Two Angles • Trigonometric Equations • Law of Sine & Law of Cosine.
AUGUST	4 & 6	➢ Principle of Mathematical Induction ➢ Linear Inequalities	• The Principle of Mathematical Induction • Algebraic Solution of Linear Inequalities in one Variable and their Graphical Representation • Graphical Solution of Linear Inequalities in two Variables • Solution of System of Linear Inequalities in Two Variables.

SEPTEMBER	7&8	➢ Permutations and Combinations ➢ Binomial Theorem	• Fundamental Principle of Counting • Permutations • Combinations • Binomial Theorem for Positive Integral Indices • General and Middle Terms
OCTOBER	9& 10	➢ Sequences and Series ➢ Straight Lines	• Sequences • Series • Arithmetic Progression(A.P) • Geometric Progression(G.P) • Relationship Between A.M and G.M • Sum to n terms of Special Series. • Slope of a line • Various Forms of the Equation of a line • General Equation of a line • Distance of a point from a Line • Distance between Parallel lines • Equation of Family of Lines.
NOVEMBER	11 & 12	➢ Conic Sections ➢ Introduction to Three Dimensional Geometry	• Sections of a Cone • Circle • Parabola • Ellipse • Hyperbola • Coordinate Axes and Coordinate Planes in Three Dimensional Space • Coordinates of a Point in Space • Distance between Two Points • Section Formula
DECEMBER	13 & 14	➢ Limits and Derivatives ➢ Mathematical Reasoning	• Intuitive Idea of Derivatives • Limits • Limits of Trigonometric Functions • Derivatives.
JANUARY	15 & 16	➢ Statistics ➢ Probability	• Measures of Dispersion • Range • Mean Deviation • Variance and Standard Deviation • Analysis of Frequency Distributions

			• Random Experiments • Event • Axiomatic Approach to Probability
FEBRUARY		➢ Revision	Activity Test Annual Exam

PHSICAL EDUCATION

MONTH	NO. OF PERIODS	CHAPTER NO.	CHAPTER NAME	SUB TOPICS
MAY	**16**	**1**	**Changing Trends & Career in Physical Education**	**Meaning & definition of Physical Education** **Aims & Objectives of Physical Education** **Career Options in Physical Education** **Competitions in various sports at national and international level** **Khelo-India Program**
JUNE	10	2	Olympic Value Education	Olympics, Paralympics and Special Olympics Olympic Symbols, Ideals, Objectives & Values of Olympism International Olympic Committee Indian Olympic Association
JULY	18	3	Physical Fitness, Wellness & Lifestyle	Meaning & Importance of Physical Fitness, Wellness & Lifestyle Components of physical fitness and Wellness Components of Health related fitness
AUGUST	18	4	Physical Education & Sports for CWSN (Children With Special Needs- Divyang)	Aims & objectives of Adaptive Physical Education Organization promoting Adaptive Sports (Special Olympics Bharat; Paralympics; Deaflympics) Concept of Inclusion, its need and Implementation Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist

SEPTEMBER	8	5	Yoga	Meaning & Importance of Yoga Elements of Yoga Introduction - Asanas, Pranayam, Meditation & Yogic Kriyas Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana & Shashankasana, Naukasana, Vrikshasana (Tree pose), Garudasana (Eagle pose) Relaxation Techniques for improving concentration – Yog-nidra
OCTOBER	14	6	Physical Activity & Leadership Training	Leadership Qualities & Role of a Leader Creating leaders through Physical Education Meaning, objectives & types of Adventure Sports (Rock Climbing, Tracking, River Rafting, Mountaineering, Surfing and Para Gliding) Safety measures to prevent sports injuries
NOVEMBER	16	7	Test, Measurement & Evaluation	Define Test, Measurement & Evaluation Importance of Test, Measurement & Evaluation In Sports Calculation of BMI & Waist - Hip Ratio Somato Types (Endomorphy, Mesomorphy & Ectomorphy) Measurement of health related fitness
DECEMBER	18	8	Fundamentals of Anatomy, Physiology & Kinesiology in Sports	Definition and Importance of Anatomy, Physiology & Kinesiology Function of Skeleton System, Classification of Bones & Types of Joints Properties and Functions of Muscles Function & Structure of Respiratory System and Circulatory System Equilibrium – Dynamic & Static And Centre of Gravity and its application in sports
JANUARY	15	9	Psychology & Sports	Definition & Importance of Psychology in Phy. Edu. & Sports Define & Differentiate Between Growth & Development Developmental Characteristics At Different Stages of Development Adolescent Problems & Their Management

FEBRUARY	10	10	Training and Doping in Sports	Meaning & Concept of Sports Training Principles of Sports Training Warming up & limbering down Skill, Technique & Style Concept & classification of doping Prohibited Substances & their side effects Dealing with alcohol and substance abuse

HINDUSTAN VOCAL MUSIC

MONTH	NO. OF PERIODS	CHAPTER	SUB - TOPIC
MAY	11	Unit 1 (Brief study)	(naad, shruti, swar, saptak, thaat, jati, laya and taal)
JUNE	8	Unit 6 (raags)	Raag Bhimpalasri
JULY	18	Unit 5 (Taals), Unit 1(Brief study)	Taal Dadra,Margi-Desi, Nibaddha & anibaddha Gaan, Lakshan Geet, Swarmalika and Raag
AUGUST	17	Unit 6(Raag Bihag), Unit- 5 (Taals)	Raag bihag chota khayal and Keharwa taal demonstration and teentaal
SEPTEMBER	6	Unit 3 (musical elements), Unit 6 (raags)	natyashastra, brihaddesi, raag bihag badakhayal
OCTOBER	13	Unit 1(gharanas, dhrupad, khayal and tarana), Unit 6(raags)	Different gharanas and raag jaunpuri chota khayal
NOVEMBER	14	Unit 3(life sketch), Unit 5(taals)	life sketch of tansen, V.N.Bhatkhande, V.D. Paluskar, sooltaal, ektaal
DECEMBER	13	Unit 5(Taals), Unit 6 (Raags)	Taal choutaal, Raag Bhairavi
JANUARY	16	Chapter 4(tanpura), Bhajan	Structure of tanpura and one bhajan

INFORMATION TECHNOLOGY

MONTH	NO. OF PERIODS	CHAPTER NO.	CHAPTER	SUB - TOPIC
MAY	12	PART-B Unit -5	Fundamentals Of JAVA	Integrated Development Environment (NETBEANS)
JUNE	10	PART-B Unit -5	Fundamentals Of Java	JAVA Programming
JULY	16	PART-B Unit -4	RDBMS	• Relational Database Management System • Introduction to MYSQL • DML Commands
AUGUST	15	PART-B Unit -3	Office Automation Tools	• Word processor • Spreadsheets • PowerPoint
SEPTEMBER	10	PART-B Unit -1	Computer Organization	• Fundamentals Of Computer And Its Characteristics • The Components Of Computer • Operating System • Troubleshooting In Computer System • The Importance Of Utilities
OCTOBER	12	PART-B Unit -2	Networking And Internet	• Computer Networking • Internet and its terminology • Cybercrime and the need of Cyber Security
NOVEMBER	15	PART-A Unit -1	Communication Skills	
DECEMBER	14	PART-A Unit -2 PART-A Unit -3	Self-Management Skills Information And Communication Technology Skills	
JANUARY	16	PART-A Unit -4 PART-A Unit -5	Entrepreneurial Skills Green Skills	
FEBRUARY	REVISION			