DELHI PUBLIC SCHOOL PARADIP REFINERY
SPLIT UP SYLLABUS (2025-26)
CLASS : XI (SCIENCE)

SUBJECT : ENGLISH CORE

Sl No	TERM - I & TERM - II	MONTH	CHAPTER NUMBER	CHAPTER NAME	SUB TOPIC	ACTIVITY	PT PORTION	REMARKS
		APRIL & May	**Hornbill ch 1**	**Introduction,**•The Portrait of a Lady (Prose) •A Photograph (Poem)			**PT 1**	**ASL ACTIVITIES WILL BE CONDUCTED THROUGHOUT THE SESSION.**
		JUNE	Hornbill: CH 1&2 POEM 1	•"We're Not Afraid to Die… if we can be Together			PT1	
		JULY	Snapshots: Supplementa ry Reader : CH 1&2 Grammar Writing Skills	• The Summer of the Beautiful White Horse (Prose) • The Address (Prose) Tenses Speech and Debate writing			PT1& PT2	

		AUGUST	Hornbill: ch 3 Poems – 2 Reading Grammar	•Discovering Tut: the Saga Continues •The Laburnum Top (Poem) Note making and summary i. Questions on Gap filling (Tenses, Clauses) ii. Questions on re ordering/transfor m ati on of sentences			PT 2	
		SEPTE MB ER	Hornbill Writing Skills Reading	• The Voice of the Rain (Poem) ADVERTISEMENTS Note making and summary			PT 3	
		OCTOBE R	Snapshots ch 3 Hornbill: ch 4 Poem 3& 4	•The Adventure •Silk Road (Prose) • The Voice of the Rain (Poem) •Father to Son				
		NOVEMB ER	Snapshot s : ch 4&5	• Birth (Prose) • Mother's Day (Play) Project wok - initiation				
		DECEMB ER	Snapshots GRAMMAR	• The Tale of Melon City CONTD. PROJECT				Final ASL to be conducted.

		JANUARY		INTERNAL ASSESSMENTS &PROJECT ASSESSMENTS REVISION				Project and viva
		FEBRUARY		ANNUAL EXAMS				

THE ENTIRE SYLLABUS WILL BE ASSESSED IN ANNUAL EXAMINATIONS.

SUBJECT : PHYSICS

MONTH	CHAPTER NUMBER	CHAPTER NAME	SUB TOPIC	ACTIVITY	PT PORTION
April	1	Mathematical Tools	Trigonometry, Algebra, Vectors, Differentiation.	To measure diameter of a small spherical /cylindrical body and to measure internal diameter and depth of a given beaker /calorimeter using Vernier Callipers (Experiment-1)	PT-I
May			Integration, Graph, Average value, functions		
June and July		Units and Measurements	Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. Significant figures. Dimensions of physical quantities, dimensional analysis and its applications.		
	2	Motion in a Straight Line	Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion.	To measure diameter of a given wire and thickness of a given sheet using screw gauge. (Experiment-2)	
	3	Motion in a Plane	Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration projectile motion, uniform circular motion.	Using a simple pendulum, plot its L-T2 graph and use it to find the effective length of second's pendulum. (Experiment-3)	
August	4	Laws of Motion	Intuitive concept of force, Inertia, Newton's laws of motion; momentum and impulse; Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion	To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.(Activity-1)	

	5	Work, Energy and Power	Work done by a constant force and a variable force; kinetic energy, work -energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.	To study the relationship between force of limiting friction and normal reaction and to find the co- efficient of friction between a block and a horizontal surface. (Experiment-4)	PT-II
September	6	System of Particles and Rotational Motion	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. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).	To study the variation in range of a projectile with angle of projection.(Activity--2)	
October & November	7	Gravitation	Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellite.	To measure the force of limiting friction for rolling of a roller on a horizontal plane.(Activiy--3)	PT-III
	8	Mechanical Properties of Solids	Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy.	To find the force constant of a helical spring by plotting a graph between load and extension. (Exper-5)	
	9	Mechanical Properties of Fluids	Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise	Activity-4 and 5 (Section-B)	
December	10	Thermal Properties of	Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous	To study the relationship between the temperature of a	

		Matter	expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law .	hot body and time by plotting a cooling curve.(Experiment-8)	
	11	Thermodynamics	Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics gaseous state of matter, change of condition of gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes.		
	12	Kinetic Theory	Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.		
January-26	13	Oscillations	Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. Simple harmonic motion (S.H.M) and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.	To study the relation between frequency and length of a given wire under constant tension using sonometer. (Exp-6.)	
	14	Waves	Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats	To find the speed of sound in air at room temperature using a resonance tube by two resonance positions. (Exp-7)	
Feb-26			Revision		

SUBJECT : CHEMISTRY

Sl. No.	MONTH	No of periods	CH. NO.	CH. NAME	PT PORTION	TERM-I&II PORTION	SUB TOPICS	EXPERIMENTS INCLUDED
1	JUNE	15	1	SOME BASIC CONCEPTS OF CHEMISTRY	PT-I	TERM-I	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, emperical and molecular formula, chemical reactions , stoichiometry and calculations based on stoichiometry .	Basic laboratory techniques: Cutting glass tube and glass rod , bending a glasstube , drawing out a glass jet , boring a cork
2	JULY	20	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	Characteristics and purification of chemical substances:1.Dete mination of melting point of an organic compound. 2.Determination of boiling point of

							its limitations, concepts of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes os 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 and stability of half-filled and completely filled orbitals .	an organic compound. 3. Crystallization of impure sample of any one of the following :Alum ,copper sulphate ,benzoic acid .
3	AUGUST	12	3	CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES	PT-II		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, inert gas radii ,ionization	A.Comparing the pH of solutions of strong and weak acids of same concentration. Study the pH change in the titration of a strong base using universal indicator . B.Study the pH change by common -ion in case of weak acids

							enthalpy , electron gain enthalpy,electronegativity,valency.Nomenclature of elements with atomic number greater than 100 .	and weak bases.
4	SEPT	20	4	CHEMICAL BONDIND AND MOLECULAR STRUCTURE			Valence electrons , ionic bond, covalent bond , bond parameters , Lewis structures, 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 .	
5	OCT	20	5	CHEMICAL			Concept of system	i.Using a

				THERMODYNAMICS			and types of systems, surroundings ,work,heat,energy, extensive and intensive properties , state functions.First law of thermodynamics-internal energy and enthalpy, heat capacity and specific heat,measurement of change in internal energy and change in enthapy, Hess's law of constant heat summation, enthalpy of bond dissociation ,combustion , formation ,atomization ,sublimation, phase transition, ionization, solution and dilution.Second law of thermodynamics(brief introduction).Introduction of entropy as a state function,Gibb's energy change for	mechanical balance/electronic balance. Ii.Preparation of standard solution of oxalic acid.iii.Determination of strength of a given solution of sodium hydroxide by titrating it against standard solution of oxalic acid.

							spontaneous and non-spontaneous processes, criteria for equilibrium.Third law of thermodynamics(brief introduction) .	
6	NOV	25	6	EQUILIBRIUM			Equilibrium in physical and chemical processes, dynamic nature of equilibrium,law of mass action,equilibrium constant, factors affecting equilibrium- Le Chatelier's principle, ionic eqiolibrium-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 ,Hendeson equation, solubility products, common	Study the shift in equilibrium between ferric ions and thiocyanate ions by increasing/ decreasing the concentration of either of the ions .

							ion effect(with illustrative examples) .	
7	DEC	10	7	REDOX REACTIONS	PT-III	TERM-II	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.	Qualitative analysis: Determination of one cation and one anion in a given salts: Cations- Pb2+, Cu2+, As3+, Al3+, Fe3+, Mn2+, Ni2+, Zn2+, Co2+, Ca2+, Sr2+, Ba2+, Mg2+, NH4+ Anions – (CO3)2- , S2- , NO2- , SO2- , NO3, Br-, I-, PO43- , C2O42- ,CH3COO-(Note: Insoluble salts excluded)
8	JAN	25	8	ORGANIC CHEMISTRY;SOME BASIC PRINCIPLES AND TECHNIQUES			General introduction, methods of purification, qualitative and quantitatives analysis, classification and IUPAC nomenclature of organic compounds .Electronic displacements in a covalent bond; inductive effect, electromeric effect , resonance and hyperconjugation. Homolytic and heterolytic fission of a covalent bond	

						; free radicals , carbocations , carbanions ,electrophiles and nucleophiles , types of organic reactions .	
9	FEB	18	9	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 reaction.Nitration, sulphonation, halogenation,Friedel Craft's alkylation and acylation,directive influence of functional group in monosubstituted	

						benzene.Carcinogenicity and toxicity .	
10	MARCH			REVISION		REVISION	REVISION

SUBJECT : MATHEMATICS

GRADE	XI			
Name of the text book	Publisher	No of units / chapters given in the text book	No of units/ chapters deleted if any	Reason for deleting the unit
MATHEMATICS Textbook for class XI	NCERT	14	Nil	……..

No	Units	Marks
I	Sets & Functions	23
II	Algebra	25
III	Coordinate Geometry	12
IV	Calculus	8
V	Statistics & Probability	12
Total		80

MONTH & YEAR	UNIT	THEME /SUB THEME	KEY CONCEPTS TO BE DEVELOPED.	ACTIVITIES TO BE PERFORMED
APRIL , MAY-2025	5	➢ Complex Numbers ➢ Quadratic Equations	• Algebra of Complex Numbers • The Modulus and the Conjugate of a complex Number • Quadratic Equations • Quadratic Formula • Square root of a Complex Number. • Argand Plane	To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n.

JUNE- 2025	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	To find the value of Sine and Cosine functions in second, third and fourth quadrants using their given values in first quadrant.
			• Complement of a Set • Practical Problems on Union and Intersection of Two Sets	
JULY- 2025	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	To prepare a model to illustrate the values of Sine function and Cosine function for different angles which are multiples of $\frac{\pi}{2}$ and π
AUGUST- 2025	6	➢ Linear Inequalities	• 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.	To plot the graphs of Sinx,Sin2x, 2Sinx and Sin $\frac{x}{2}$, using same coordinate axes.
SEPTEMBER -2025	7&8	➢ Permutations and Combinations ➢ Binomial Theorem	• Fundamental Principle of Counting • Permutations • Combinations • Binomial Theorem for Positive Integral Indices • General and Middle Terms	To distinguish between a Relation and a Function.

OCTOBER- 2025	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	To interpret geometrically the meaning of i =$\sqrt{-1}$ and its integral powers To obtain quadratic function with the help of linear functions graphically.
NOVEMBER- 2025	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	To construct a Pascal's Triangle and to write binomial expansion for a given positive integral exponent
DECEMBER- 2025	13	➢ Limits and Derivatives	• Intuitive Idea of Derivatives • Limits • Limits of Trigonometric Functions • Derivatives.	To obtain formula for the sum of the squares of first n-natural numbers
JANUARY- 2026	15 & 16	➢ Statistics ➢ Probability	• Measures of Dispersion • Range • Mean Deviation • Variance and Standard Deviation • Analysis of Frequency Distributions • Random Experiments • Event • Axiomatic Approach to	To demonstrate that the Arithmetic mean of two different positive numbers is always greater than the Geometric mean.

			Probability	
FEBRUARY- 2026		➢ Revision	Activity Test Annual Exam	

Internal Assessment	20 Marks
Periodic Tests (Best 2 out of 3 tests Conducted)	10 Marks
Mathematics Activities	10 Marks

SUBJECT : BIOLOGY

S NO	MONTHS	UNIT NO. AND NAME	CHAPTER	SUB TOPICS	ACTIVITIES INCLUDED	PT PORTION
1	**APRIL**	***Unit-I Diversity of Living Organism***	**Chapter-1: The Living World**	What is living? Biodiversity; Need for classification; three domains of life; concept of species and taxonomical hierarchy; binomial nomenclature.	1. Study and describe locally available common flowering plants, from family Solanaceae (Poaceae, Asteraceae or Brassicaceae can besubstituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound)	**PT-I**

MAY	**Chapter-2: Biological Classification**	Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids.	1. Parts of a compound microscope. 2. Specimens/slides/models and identification with reasons - Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushroom, yeast, liverwort, moss, fern, pine, one monocotyledonous plant, one dicotyledonous plant and one lichen. 3. Virtual specimens/slides/models and identifying features of - Amoeba, Hydra,liverfluke, Ascaris, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.	
	Chapter-3: Plant Kingdom	Salient features and classification of plants into major groups - Algae, Bryophyta, Pteridophyta and Gymnospermae. (salient and distinguishing features and a few examples of each category).		
	Chapter-4: Animal Kingdom	Salient features and classification of animals, non-chordates up to phyla level and chordates up to class level (salient features and distinguishing features of a few examples of each category). (No live animals or specimen should be displayed.)		

2	**JUNE**	***Unit-II Structural Organization in Animals and Plants***	**Chapter-5: Morphology of Flowering Plants**	Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruitand seed. Description of family Solanaceae	.B5. Different types of inflorescence (cymose and racemose) A5.Study of distribution of stomata on the upper and lower surfaces of leaves.6. Comparative study of the rates of transpiration in the upper and lower surfaces of leaves.Preparation and study of T.S. of dicot and monocot roots and stems (primary)8. Separation of plant pigments through paper chromatography	**PT-II**
			Chapter-6: Anatomy of Flowering Plants	Anatomy and functions of tissue systems in dicots and monocots.		
	JULY		**Chapter-7: Structural Organization in Animals**	Morphology, Anatomy and functions of different systems (digestive, circulatory,respiratory, nervous andreproductive) of frog		
3	**AUGUST**	***Unit-III Cell: Structure and Function***	**Chapter-8: Cell-The Unit of Life**	Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus.		

			Chapter-9: Biomolecules	Chemical constituents of living cells: biomolecules, structure and function of proteins,carbohydrates, lipids, nucleic acids; Enzymes- types, properties, enzyme action		
			Chapter-10: Cell Cycle and Cell Division	Cell cycle, mitosis, meiosis and their significance	4. Mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.	
4	**SEPTEMBER**	***Unit-IV Plant Physiology***	**Chapter-13: Photosynthesis in Higher Plants**	Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis.	Comparative study of the rates of transpiration in the upper and lower surfaces of leaves.	**PT-III**
	OCTOBER		**Chapter-14: Respiration in Plants**	Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient.	9. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.	

			Chapter-15: Plant - Growth and Development	Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes 5 in a plant cell; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.	3.Study of osmosis by potato osmometer.4.Study of plasmolysis in epidermal peels (e.g. Rhoeo/lily leaves or flashy scale leaves of onion bulb).	
5	**NOVEMBER**	***Unit-V Human Physiology***	***Chapter-17: Breathing and Exchange of Gases***	Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders.	7. Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials.	
			Chapter-18: Body Fluids and Circulation	Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human 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.		**PT-IV**

6	**December**		***Chapter-19: Excretory Products and their Elimination***	Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system – structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant.	10. Test for presence of urea in urine. 11. Test for presence of sugar in urine. 12. Test for presence of albumin in urine. 13. Test for presence of bile salts in urine.	
7	**January**		**Chapter-20: Locomotion and Movement**	Types of movement - ciliary, flagellar, muscular; 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.	6. Human skeleton and different types of joints with the help of virtual images/models only	
			Chapter-21: Neural Control and Coordination	Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervoussystem and visceral nervous system; generation and conduction of nerve impulse.		

8	**February**		**Chapter-22: Chemical Coordination and Integration**	Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal,thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone action (elementary idea);role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders;dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addison's disease.Note: Diseases related to all the human physiological systems to be taught in brief.		**PT-IV**
				REVISION FOR ANNUAL EXAM		

SUBJECT : PHYSICAL EDUCATION

Sl No	MONTH	TOPIC	SUB TOPIC
1	MAY	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
2	JUNE	Olympic Value Education	Olympics, Paralympics and Special Olympics Olympic Symbols, Ideals, Objectives & Values of Olympics International Olympic Committee Indian Olympic Association
3	JULY	Physical Fitness, Wellness & Lifestyle	Meaning & Importance of Physical Fitness, Wellness & Lifestyle Components of physical fitness and Wellness Components of Health related fitness
4	AUGUST	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

5	SEPTEMBER	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
6	OCTOBER	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
7	NOVEMBER	Test, Measurement & Evaluation	Define Test, Measurement & EvaluationImportance of Test, Measurement & Evaluation In Sports Calculation of BMI & Waist - Hip Ratio Somato Types (Endomorphy, Mesomorphy & Ectomorphy) Measurement of health related fitness
8	DECEMBER	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
9	JANUARY	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

10	FEBRUARY	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
		REVISION	

SUBJECT : COMPUTER SCIENCE

Sl No	MONTH	UNIT NUMBER	CHAPTER NAME	SUB TOPIC	PT PORTION
1	June - July	Unit-1	Computer Systems and Organisation	Basic computer organization, Types of software, Operating System(OS), Boolean logic, Number System, Encoding Schemes	PT-1
2	August	Unit-2	Computational Thinking and Programming - I	Introduction to Problem-solving, Familiarization with the basics of Python programming, Knowledge of data types, Operators	PT-2
3	September	Unit-2	Computational Thinking and Programming - I	Expressions, statement, type conversion, and input/output, Errors, Flow of Control, Conditional statements	PT-3
4	October	Unit-2	Computational Thinking and Programming - I	Iterative Statement, Strings, Lists,	
5	November	Unit-2	Computational Thinking and Programming - I	Tuples, Dictionary, Introduction to Python modules	
6	December	Unit-3	Society, Law and Ethics	Digital Footprints, Digital Society and Netizen, Data Protection, Cyber Crime, Cyber safety, Malware, E-waste management, Information Technology Act (IT Act), Technology and society	
7	January	Revision For Annual Examination			

SUBJECT : HINDUSTANI MUSIC VOCAL

Sl No	TERM – I & TERM – II	MONTH	CHAPTER NUMBER	CHAPTER NAME	SUB TOPIC	ACTIVITY	PT PORTION
1	Raag Bhimpalasri. Definition of naad, shruti, swar, saptak, that, jati, laya, taal.	May, June	Unit 1 and Unit 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT-1
2	Brief Study of Margi-desi and Raag, Teentaal and Raag Bihag Chota khayal	July	Unit 2.1 and Unit 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT-1
3	History of Dhrupad, Khayal and Tarana. Raag Bhairavi Chota Khayal.	August	Unit 3.1 and 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT-2
4	Natyashastra, life sketch of Tansen. Ektaal description. Raag Bihag Bada Khayal	August	Unit 3.1, 3.2, 4.1 and 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT-3
5	Structure of Tanpura, Raag Bihag Bada Khayal, Choutaal description.	September	Unit 4.2, and 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT-3

6	Raag Bihag Bada Khayal, Life Sketch of V.N. Bhatkhande and V.D. Paluskar	October	Unit 3.2 & Unit 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT-3
7	Dhrupad in Raag Bairavi	November	Unit 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT-3
8	One Devotional Song	December	Unit 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	PT- 2
9	Revision	January	All units	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	
10	Revision	February	All units	NA	Taan, Alaap, Notation, and Bandish	Singing the raag and Reciting Taal with the help of hands.	

SUBJECT : INFORMATION TECHNOLOGY

Sl No	MONTH	UNIT NUMBER	CHAPTER NAME	SUB TOPIC	PT PORTION
1	June - July	Chapter - 1	Computer Organization	Fundamentals of Computer and its characteristics, Components of computer, Operating System, Troubleshooting in computer system , Importance of Utilities	PT-1
2	August	Chapter - 4	RDBMS	Database and its purpose, Components of a table, Relational Database Model, Keys, Introduction To MYSQL, Classification of MYSQL commands , Data Types in MYSQL, DDL Commands, Add constraints in table, DML Commands	PT-2
3	September	Chapter - 5	Fundamentals To Java Programming	Components of IDE, Understand and change Properties and methods of Components, Introduction to Object Oriented Programming, Data types, Variables, Operators, Using different components, Selection statement	
4	October-November	Chapter - 3	Office Automation Tools	Word processor, Spreadsheets , PowerPoint	PT-3
5	December	Chapter - 2	Networking And Internet	Need and benefits of networking, Components of a network, Transmission Medium, Telephone, Network standard Working Devices, Network Topology, Types of Networking, Digital Literacy, Terminology , Internet Devices, Data Transfer Rate Protocols , Network safety concerns, Networking Security Measures, Cyber Crime, Cyber Safety	
6	January	Revision For Annual Examination			