



# DELHI PUBLIC SCHOOL PARADIP REFINERY



SPLIT UP SYLLABUS (2026 – 27)

## 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 Poem 1 ch 1	Introduction, •ThePortrait of a Lady (Prose) •A Photograph (Poem)			PT 1	ASL ACTIVITIES WILL BE CONDUCTED THROUGHOUT THE SESSION.
		JUNE	Hornbill: CH 2 Writing Skills	•“We’re Not Afraid to Die... if we can be Together Poster Making			PT1	

		JULY	<p>Snapshots: Supplementary Reader : CH 1&amp;2 Grammar  Writing Skills</p>	<ul style="list-style-type: none"> <li>• The Summer of the Beautiful White Horse (Prose)</li> <li>• The Address (Prose)</li> </ul> <p>Tenses Speech and Debate writing</p>			PT1 & PT2	
		AUGUST	<p>Hornbill: ch 3 Poems – 2</p> <p>Reading</p> <p>Grammar</p>	<ul style="list-style-type: none"> <li>• Discovering Tut: the Saga Continues</li> <li>• The Laburnum Top (Poem)</li> </ul> <p>Note making and summary</p> <p>i. Questions on Gap filling (Tenses, Clauses)</p> <p>ii. Questions on re ordering/transformation of sentences</p>			PT 2	
		SEPTEMBER	<p>Hornbill Writing Skills</p> <p>Reading</p>	<ul style="list-style-type: none"> <li>• The Voice of the Rain (Poem)</li> </ul> <p>ADVERTISEMENTS</p> <p>Note making and summary</p>			PT 3	

		OCTOBER	<p>Snapshots ch 3</p> <p>Hornbill: ch 4 Poem 3&amp; 4</p>	<ul style="list-style-type: none"> <li>• The Adventure</li> <li>• Silk Road (Prose)</li> <li>• The Voice of the Rain (Poem)</li> <li>• Father to Son</li> </ul>			PT 3	
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	NOVEMBER	Snapshots : ch 4&5	<ul style="list-style-type: none"> <li>• Birth ( Prose)</li> <li>• Mother's Day (Play)</li> </ul> Project work - initiation				
	DECEMBER	Snapshots GRAMMAR	<ul style="list-style-type: none"> <li>• The Tale of Melon</li> </ul> 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 (042)

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		<b>Units and Measurements</b>	<b>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.</b>		
And					
July					
	2	<b>Motion in a Straight Line</b>	<b>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.</b>	To measure diameter of a given wire and thickness of a given sheet using screw gauge. (Experiment-2)	
	3	<b>Motion in a Plane</b>	<b>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.</b>	<b>Using a simple pendulum, plot its L-T<sup>2</sup> graph and use it to find the effective length of second's pendulum. (Experiment-3)</b>	

August	4	<b>Laws of Motion</b>	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	<b>Work, Energy and Power</b>	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 coefficient of friction between a block and a horizontal surface. (Experiment-4)	PT-II
	6	<b>System of Particles and Rotational Motion</b>	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)	
September & October	7	<b>Gravitation</b>	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.(Activity--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)	
November	10	Thermal Properties of Matter	Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law .	To study the relationship between the temperature of a 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.		
December	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)	
Jan & Feb			Revision and Annual Examination		

## SUBJECT : CHEMISTRY (043)

MONTH	CHAPTER NAME	SUB TOPIC	PRACTICAL	PT PORTION
MAY	SOME BASIC CONCEPTS OF CHEMISTRY	Importance of Chemistry, Nature of Matter, Properties of Matter and their Measurement, Uncertainty in Measurement, Laws of Chemical Combination, Dalton's Atomic Theory, Atomic and Molecular Masses, Mole Concept and Molar Masses, Percentage Composition, Stoichiometry and Stoichiometric Calculations.	Basic laboratory techniques: Cutting glass tube and glass rod , bending a glasstube , drawing out a glass jet , boring a cork	PT-I
JUNE & JULY	STRUCTURE OF ATOM	Discovery of Sub-atomic Particles, Atomic Models, Developments Leading to the Bohr's Model of Atom, Bohr's Model for Hydrogen Atom, Towards Quantum Mechanical Model of the Atom, Quantum Mechanical Model of Atom	Characteristics and purification of chemical substances: 1.Deteminatoin of melting point of an organic compound. 2.Determination of boiling point of an organic compound. 3. Crystallization of impure sample of any one of the following :Alum ,copper sulphate ,benzoic acid.	PT-II

	CLASSIFICATION OF ELEMENTS AND PERIODICITY IN PROPERTIES	Why we Need to Classify Elements? Genesis of Periodic Classification, Modern Periodic Law and the Present Form of Periodic Table, Nomenclature of Elements with Atomic Number > 100, Electronic Configuration of Elements and the Periodic Table, Electronic Configuration of Elements and Types of Elements: s-, p-, d-, f- Blocks, Periodic Trends in Properties of Elements	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 and weak bases.	
AUGUST	CHEMICAL BONDIND AND MOLECULAR STRUCTURE	Kossel-Lewis Approach to Chemical Bonding, Ionic or Electrovalent Bond, Bond Parameters, The Valence Shell Electron Pair Repulsion (VSEPR) Theory, Valence Bond Theory, Hybridisation, Molecular Orbital Theory, Bonding in Some Homonuclear Diatomic Molecules, Hydrogen Bonding.	i.Using a mechanical balance/electronic balance. Ii.Preparation of standard solution of oxalic acid.iii.Determination of strength of a given solution of sodium hydroxide by titrating it against standard solution of oxalic acid.	

	THERMODYNAMICS	Thermodynamic Terms, Applications, Measurement of $\Delta U$ and $\Delta H$ : Calorimetry, Enthalpy Change, and $\Delta H$ of a Reaction – Reaction Enthalpy, Enthalpies for Different Types of Reactions, Spontaneity, Gibbs Energy Change and Equilibrium.		<b>PT-III</b>
<b>SEPTEMBER</b>	EQUILIBRIUM	Equilibrium in Physical Processes, Equilibrium in Chemical Processes – Dynamic Equilibrium, Law of Chemical Equilibrium and Equilibrium Constant, Homogeneous Equilibria, Heterogeneous Equilibria, Applications of Equilibrium Constants, Relationship between Equilibrium Constant $K$ , Reaction Quotient $Q$ and Gibbs Energy $G$ , Factors Affecting Equilibria, Ionic Equilibrium in Solution, Acids, Bases and Salts, Ionization of Acids and Bases, Buffer Solutions, Solubility Equilibria of Sparingly Soluble Salts.	Study the shift in equilibrium between ferric ions and thiocyanate ions by increasing/ decreasing the concentration of either of the ions .	
	REDOX REACTIONS	Classical Idea of Redox Reactions – Oxidation and Reduction Reactions, Redox Reactions in Terms of Electron Transfer Reactions, Oxidation Number, Redox Reactions and Electrode Processes.		
<b>OCTOBER &amp; NOVEMBER</b>	ORGANIC CHEMISTRY; SOME BASIC PRINCIPLES AND TECHNIQUES	General Introduction, Tetravalence of Carbon: Shapes of Organic Compounds, Structural Representations of Organic Compounds, Classification of Organic Compounds, Nomenclature of Organic Compounds, Isomerism, Fundamental Concepts in Organic Reaction Mechanism, Methods of Purification of Organic Compounds, Qualitative Analysis of Organic Compounds, Quantitative Analysis	Qualitative analysis: Determination of one cation and one anion in a given salts: Cations- $Pb^{2+}$ , $Cu^{2+}$ , $As^{3+}$ , $Al^{3+}$ , $Fe^{3+}$ , $Mn^{2+}$ , $Ni^{2+}$ , $Zn^{2+}$ , $Co^{2+}$ , $Ca^{2+}$ , $Sr^{2+}$ , $Ba^{2+}$ , $Mg^{2+}$ , $NH_4^+$ Anions – $(CO_3)^{2-}$ , $S^{2-}$ , $NO_2^-$ , $SO_3^{2-}$ , $NO_3^-$ , $Br^-$ , $I^-$ , $PO_4^{3-}$ , $C_2O_4^{2-}$ , $CH_3COO^-$ -(Note: Insoluble salts excluded)	
<b>DECEMBER</b>	HYDROCARBONS	Classification, Alkanes, Alkenes, Alkynes, Aromatic Hydrocarbon, Carcinogenic and Toxicity.		
<b>JANUARY &amp; FEBRUARY</b>		<b>REVISION AND ANNUAL</b>		

## 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- 2026	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- 2026	1	Sets	Sets and their Representations The Empty Set Finite and Infinite Sets Equal Sets Subsets	To find the value of Sine and Cosine functions in second, third and fourth quadrants using their given values in first quadrant.

			Power Set Universal Set Venn Diagram Operations on Sets Complement of a Set Practical Problems on Union and Intersection of Two Sets	
JULY- 2026	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 $\pi$ and $\frac{\pi}{2}$
AUGUST-2026	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 $\sin x, \sin 2x, 2\sin x$ and $\sin x$ , using same coordinate axes.
SEPTEMBER-2026	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-2026	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-2026	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	To construct a Pascal's Triangle and to write binomial expansion for a given positive integral exponent

			Coordinates of a Point in Space Distance between Two Points Section Formula	
DECEMBER-2026	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-2027	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	To demonstrate that the Arithmetic mean of two different positive numbers is always greater than the Geometric mean.
FEBRUARY-2027		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

		<b>CLASS-XI,SUBJECT-BIOLOGY(044)</b>		
		<b>SPLIT UP SYLLABUS 2026-27</b>	<b>BOOK-NCERT TEXT BOOK</b>	
<b>UNIT NO. AND NAME</b>	<b>CHAPTER</b>	<b>SUB TOPICS</b>	<b>ACTIVITIES INCLUDED</b>	<b>PT PORTION</b>
<i><b>Unit-I Diversity of Living Organism</b></i>	<b>Chapter-1: The Living World</b>	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 be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound)	<b>PT-I</b>

	<b>Chapter-2: Biological Classification</b>	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.	
	<b>Chapter-3: Plant Kingdom</b>	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).		
	<b>Chapter-4: Animal Kingdom</b>	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.)		
<b>Unit-II Structural Organization in Animals and Plants</b>	<b>Chapter-5: Morphology of Flowering Plants</b>	Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae	.B5. Different types of inflorescence (cymose and racemose)	<b>PT-II</b>

	<b>Chapter-6: Anatomy of Flowering Plants</b>	Anatomy and functions of tissue systems in dicots and monocots.	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.Preparationand study of T.S. of dicot and monocot roots and stems (primary)8. Separation of plant pigments through paper chromatography	
	<b>Chapter-7: Structural Organization in Animals</b>	Morphology, Anatomy and functions of different systems (digestive, circulatory,respiratory, nervous andreproductive) of frog		
<b>Unit-III Cell: Structure and Function</b>	<b>Chapter-8: Cell- The Unit of Life</b>	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.		

	<b>Chapter-9: Biomolecules</b>	Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, nucleic acids; Enzymes- types, properties, enzyme action		
	<b>Chapter-10: Cell Cycle and Cell Division</b>	Cell cycle, mitosis, meiosis and their significance	4. Mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.	
<i>Unit-IV Plant Physiology</i>	<b>Chapter-13: Photosynthesis in Higher Plants</b>	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.	<b>PT-III</b>
	<b>Chapter-14: Respiration in Plants</b>	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.	
	<b>Chapter-15: Plant - Growth and Development</b>	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).	

<p><b>Unit-V Human Physiology</b></p>	<p><b>Chapter-17: Breathing and Exchange of Gases</b></p>	<p>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.</p>	<p>7. Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials.</p>	
	<p><b>Chapter-18: Body Fluids and Circulation</b></p>	<p>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.</p>		<p><b>PT-IV</b></p>
	<p><b>Chapter-19: Excretory Products and their Elimination</b></p>	<p>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.</p>	<p>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.</p>	

	<b>Chapter-20: Locomotion and Movement</b>	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	
	<b>Chapter-21: Neural Control and Coordination</b>	Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse.		
	<b>Chapter-22: Chemical Coordination and Integration</b>	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.		<b>PT-IV</b>
		REVISION FOR ANNUAL EXAM		

## SUBJECT : PHYSICAL EDUCATION

UNIT 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	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
4	AUGUST	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)
5	SEPTEMBER	Physical Fitness, Wellness	Meaning & Importance of Physical Fitness, Wellness Components of physical fitness and Wellness Components of Health related fitness

6	OCTOBER	Test, Measurement & Evaluation	<p>Define Test, Measurement &amp; Evaluation Importance of Test, Measurement &amp; Evaluation In Sports Calculation of BMI &amp; Waist - Hip Ratio Somato Types (Endomorphy, Mesomorphy &amp; Ectomorphy) Measurement of health related fitness</p>
7	NOVEMBER	Fundamentals of Anatomy and Physiology in Sports	<p>Definition and Importance of Anatomy, Physiology Function of Skeleton System, Classification of Bones &amp; Types of Joints Properties and Functions of Muscles Function &amp; Structure of Respiratory System and Circulatory System Equilibrium – Dynamic &amp; Static And Centre of Gravity and its application in sports</p>
8	DECEMBER	Fundamentals of Kinesiology and Biomechanics in Sports	<p>Definition and Importance of Kinesiology and Biomechanics in Sports. 2. Principles of Biomechanics 3. Kinetics and Kinematics in Sports 4. Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination &amp; Pronation 5. Axis and Planes – Concept and its application in body movements</p>
9	JANUARY	Psychology & Sports	<p>Definition &amp; Importance of Psychology in Phy. Edu. &amp; Sports Define &amp; Differentiate Between Growth &amp; Development Developmental Characteristics At Different Stages of Development Adolescent Problems &amp; Their Management</p>
10	FEBRUARY	Training and Doping in Sports	<p>Meaning &amp; Concept of Sports Training Principles of Sports Training Warming up &amp; limbering down Skill, Technique &amp; Style Concept &amp; classification of doping Prohibited Substances &amp; their side effects Dealing with alcohol and substance abuse</p>
		REVISION	

## SUBJECT: HINDUSTANI MUSIC VOCAL (034)

SINo & TERM – I TERM – II	MONTH	CHAPTER NUMBER	CHAPTER NAME	SUB TOPIC	ACTIVITY	PT PORTION	REMARKS
1	May, June	Unit 1 and Unit 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raagand Reciting Taal with the help of hands.	PT-1	
2	July	Unit 2.1 and Unit 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raagand Reciting Taal with the help of hands.	PT-1	
3	August	Unit 3.1 and 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raagand Reciting Taal with the help of hands.	PT-2	
4	August	Unit 3.1, 3.2, 4.1 and 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raagand Reciting Taal with the help of hands.	PT-3	
5	September	Unit 4.2, and 5	NA	Taan, Alaap, Notation, and Bandish	Singing the raagand Reciting Taal with the help of hands.	PT-3	
6	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	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 : CS (083)**

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SINo	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		
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 : IT (802)**

<b>SINo</b>	<b>MONTH</b>	<b>UNIT NUMBER</b>	<b>CHAPTER NAME</b>	<b>SUB TOPIC</b>	<b>PT PORTION</b>
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	
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			