



RAMAGYA SCHOOL, NOIDA
ANNUAL CURRICULUM, 2021-22
CLASS: XI

ENGLISH

Prescribed Books:

1. Hornbill
2. Snapshots

MONTH	TOPICS	CHAPTER / SUB TOPICS
TERM I		
MAY	Literature Grammar Writing Skill	Chapter1-The Portrait of a Lady (Prose)(S) Determiners Notice Writing
JUNE	Literature Grammar Writing Skill	*Chapter 1-The Summer of a beautiful white horse (Prose)(H) *A Photograph-Poetry(H) *Modals *Poster *Note-making

JULY	Literature Grammar Writing Skill	*Chapter 2- We're not afraid to die if we can all be together (Prose)(S) *Tenses *Letter of Enquiry
AUGUST	Literature Writing Skill	*Discovering Tut *The Laburnum Top(H) *The Address *Ranga's Marriage *Letter to ask Information *Letter of Complaint * Speech
SEPTEMBER	Literature	*Chapter 4-Landscape of the Soul(H) *Placing Order *Giving Reply *Reordering Sentences
TERM II		
OCTOBER	Literature Grammar	*The Voice of Rain(H) Chapter 4-Albert Einstein at School(S) Chapter 5-The Ailing Planet(H) *Determiners-Revision

NOVEMBER	Literature Grammar Writing Skill	*Chapter 6:The Browning Version(H) *Childhood(H) *Chapter 5: Mother’s Day (S) *Re-ordering Sentences *Posters-Revision
DECEMBER	Literature Grammar Writing	*Chapter8: The Silk Road(H) *Tenses-Revision *Note-making:-Revision *Letter to School /College for admission
JANUARY	Literature Writing	*Chapter 7: Birth(S) Debate
FEBRUARY	Revision	
MARCH	Annual Examinations	

	<p>uniform and non- uniform motion, average speed and instantaneous velocity,</p> <p>uniformly accelerated motion, velocity - time and position-time graphs.</p> <p>Relations for uniformly accelerated motion</p> <p>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.</p>	Chapter-4: Motion in a Plane
JULY	Motion in a plane, cases of uniform velocity and uniform acceleration- projectile motion, uniform circular motion.	Chapter-4: Motion in a Plane
AUGUST	Intuitive concept of force, Inertia, Newton's first law of motion; momentum	Chapter-5: Laws of Motion

	<p>and Newton's second law of motion; impulse; Newton's third law of motion.</p> <p>Work done by a constant force and a variable force; kinetic energy, work-energy theorem, power.</p> <p>Notion of potential energy, potential energy of a spring, conservative forces: conservation of mechanical energy (kinetic and potential energies); non-conservative forces: motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.</p>	<p>Chapter–6: Work, Engery and Power</p>
<p>SEPTEMBER</p>	<p>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.</p> <p>Moment of a force, torque, angular momentum, law of conservation of</p>	<p>Chapter–7: System of Particles and Rotational Motion</p>

	<p>angular momentum and its applications.</p> <p>Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions.</p> <p>Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation). Statement of parallel and perpendicular axes theorems and their applications.</p> <p>Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth.</p> <p>Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellite, Geostationary satellites.</p>	<p>Chapter-8: Gravitation</p>
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TERM II		
OCTOBER	<p>Elastic behaviour, Stress-strain relationship, Hooke's law, Young's modulus,</p> <p>bulk modulus, shear modulus of rigidity, Poisson's ratio; elastic energy.</p> <p>Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure.</p> <p>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.</p>	<p>Chapter–9: Mechanical Properties of Solids Chapter–10: Mechanical Properties of Fluids</p>
NOVEMBER	<p>Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat</p>	<p>Chapter–11: Thermal Properties of Matter</p>

	<p>capacity; C_p, C_v - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law, Greenhouse effect.</p> <p>Thermal equilibrium and definition of temperature (zeroth law of thermodynamics), heat, work and internal energy. First law of thermodynamics, isothermal and adiabatic processes.</p> <p>Second law of thermodynamics: reversible and irreversible processes, Heat engine and refrigerator.</p>	<p>Chapter-12: Thermodynamics</p>
<p>DECEMBER</p>	<p>Equation of state of a perfect gas, work done in compressing a gas.</p> <p>Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of</p>	<p>Chapter-13: Kinetic Theory</p>

	waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats, Doppler effect.	
FEBRUARY	Revision	
MARCH	Annual Examinations	

Chemistry

Prescribed Books:

1. Ncert part I
2. NCERT PART II

TERM I		
Month	CHAPTER	Topic(s)
May, 9	Mole concept Some Basic Concepts of Chemistry Some Basic Concepts of Chemistry	<ul style="list-style-type: none"> • Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and • calculations based on stoichiometry.

June	Structure of atom	Bohr atomic model
July	Structure of Atom	<p>concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals,</p> <p>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,</p> <p>periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency.</p>
August, 20	<p>Classification of elements</p> <p>REDOX REACTION</p> <p>CHEMICAL BONDING</p>	<p>Oxidation no. types of redox reaction, balancing of redox reaction</p> <p>Valence electrons, ionic bond, covalent bond, bond parameters,</p> <p>Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance,</p> <p>geometry of covalent molecules, VSEPR theory,</p> <p>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</p>

SEPTEMBER,16	HYDROGEN	Types of hydrides, water , removal of hardness of water
OCTOBER,18	Organic Chemistry -Some Basic Principles and Technique	<ul style="list-style-type: none"> • 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. <p>Classification of Hydrocarbons Aliphatic Benzenoid and non benzenoid.</p>
TERM 2		

		<ul style="list-style-type: none"> • internal energy and enthalpy, • Hess's law of constant heat summation, • enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. • Second law of Thermodynamics (brief introduction). Introduction of entropy as a state function, • Gibb's energy change for spontaneous and non- spontaneous processes, <p>Third law of thermodynamics (brief introduction).</p>
JANUARY	EQUILIBRIUM	<ul style="list-style-type: none"> • Equilibrium in physical and chemical processes, • dynamic nature of equilibrium • law of mass action, equilibrium • 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, • buffer solution, solubility product, common ion effect (with illustrative examples)
FEBRUARY	S Block elements	<ul style="list-style-type: none"> • Group 1 and Group 2 Elements General introduction, electronic configuration, occurrence, anomalous properties of the first element of each group,

	P BLOCK ELEMENTS	<ul style="list-style-type: none"> • 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. • General Introduction to p -Block Elements <ul style="list-style-type: none"> • 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, • 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;
MARCH	REVISION AND EXAM	

MATHEMATICS

Prescribed Books:

1. NCERT
2. NCERT EXEMPLAR

MONTH	CHAPTER NO. & NAME	TOPICS
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TERM 1		
MAY	Chapter-1 Sets	<ul style="list-style-type: none"> • Venn Diagrams • Operations on Sets • Practical Problems on Union and Intersection of Two Sets
JUNE	Chapter-2 Relations and functions	<ul style="list-style-type: none"> • Cartesian Product of Sets • Relations • Functions
JULY	Chapter-3 Trigonometric Functions	<ul style="list-style-type: none"> • Angles • Trigonometric Functions • Trigonometric Functions of Sum and Difference of Two Angles
	Chapter-5 Complex Numbers	<ul style="list-style-type: none"> • Complex Numbers • Algebra of Complex Numbers • The Modulus and the Conjugate of a Complex Number • Argand Plane • Quadratic Equations

AUGUST	Chapter-9 Sequences and Series	<ul style="list-style-type: none"> • Sequences • Series • Arithmetic Progression (A.P.) • Geometric Progression (G.P.) • Relationship Between A.M. and G.M.
	Chapter-10 Straight Lines	<ul style="list-style-type: none"> • Slope of a Line • Various Forms of the Equation of a Line • General Equation of a Line • Distance of a Point From a Line
SEPTEMBER	Chapter-13 Limit & Derivatives	<ul style="list-style-type: none"> • Limits • Limits of Trigonometric Functions
	Chapter-15 Statistics	<ul style="list-style-type: none"> • Measures of Dispersion • Range • Mean Deviation • Variance and Standard Deviation
OCTOBER	Revision of Term-1 syllabus	
TERM 2		
NOVEMBER	Term-2 Examination	
	Chapter-10	<ul style="list-style-type: none"> • Slope of a Line • Various Forms of the Equation of a Line

	Straight Lines	<ul style="list-style-type: none"> • General Equation of a Line • Distance of a Point From a Line
DECEMBER	Chapter-7 Permutations and Combinations	<ul style="list-style-type: none"> • Fundamental Principle of Counting • Permutations • Combinations
	Chapter-12 Introduction to 3D Geometry	<ul style="list-style-type: none"> • Coordinate Axes and Coordinate Planes in Three Dimensional Space • Coordinates of a Point in Space • Distance between Two Points • Section Formula
	Chapter-11 Conic Sections	<ul style="list-style-type: none"> • Sections of a Cone • Circle • Parabola • Ellipse • Hyperbola
JANUARY	Chapter-13 Limit & Derivatives	<ul style="list-style-type: none"> • Intuitive Idea of Derivatives • Derivatives
	Chapter-16 Probability	<ul style="list-style-type: none"> • Probability Introduction • Random Experiments • Event • Axiomatic Approach to Probability
FEBRUARY	Revision of Term-1 syllabus	

MARCH	Term-2 Examination	
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APPLIED MATHEMATICS

Prescribed Books:

3. NCERT
4. NCERT EXEMPLAR

MONTH	CHAPTER NO. & NAME	TOPICS
TERM 1		
MAY	Chapter-5 Sets and Relation	<ul style="list-style-type: none"> • Introduction to Sets • Representation of Sets • Types of sets • Subsets • Intervals • Venn diagrams • Operations on Sets • Cartesian Product of two Sets • Relations • Types of Relation

JUNE	Chapter-9 Functions	<ul style="list-style-type: none"> • Functions • Domain and range of functions • Types of functions • Graphical representations of functions
JULY	Chapter-1 Numbers	<ul style="list-style-type: none"> • Binary Numbers
	Chapter-2 Indices and Logarithms	<ul style="list-style-type: none"> • Indices, Logarithm and Antilogarithm • Laws and Properties of Logarithms • Simple applications of Logarithm and Antilogarithm
AUGUST	Chapter-3 Quantitative Aptitude	<ul style="list-style-type: none"> • Averages • Clock • Calendar • Time, work and distance • Seating Arrangement
	Chapter-4 Mensuration	<ul style="list-style-type: none"> • Mensuration
	Chapter-8	<ul style="list-style-type: none"> • Mathematical reasoning • Logical reasoning

	Mathematical Reasoning	
SEPTEMBER	Chapter-6 Sequences and Series	<ul style="list-style-type: none"> • Sequences and Series • Arithmetic Progression • Geometric Progression • Applications of AP and GP
	Chapter-13 Descriptive Statistics	<ul style="list-style-type: none"> • Types of data • Data on Various Scales • Data representation and visualization • Data Interpretation • Percentile rank and Quartile rank • Correlation
OCTOBER	Revision of Term-1 syllabus	
TERM 2		
NOVEMBER	Term-2 Examination	
	Chapter-7 Permutations and Combinations	<ul style="list-style-type: none"> • Factorial • Fundamental principle of counting • Permutations • Combinations
DECEMBER	Chapter-12 Probability	<ul style="list-style-type: none"> • Introduction • Random Experiment and Sample Space • Event • Conditional Probability • Total Probability • Bayes theorem

	Chapter-17 Straight Lines	<ul style="list-style-type: none"> • Coordinate Axes and Coordinate Planes in Three Dimensional Space • Coordinates of a Point in Space • Distance between Two Points
	Chapter-18 Circles and Parabola	<ul style="list-style-type: none"> • Circle • Parabola
JANUARY	Chapter-14 Compound Interest and Annuity	<ul style="list-style-type: none"> • Interest and Interest rates • Accumulation with simple and compound Interest • Simple and Compound interest rates with equivalency • Effective rate of interest • Present value, net present value and future value • Annuities, Calculating value of regular annuity • Simple applications of regular annuities
	Chapter-15 Taxation	<ul style="list-style-type: none"> • Tax • Calculation of tax • Simple applications of tax calculation in goods and service tax • Income tax
	Chapter-16 Utility Bills	<ul style="list-style-type: none"> • Bills • Tariff rates • Fixed charge • Surcharge

		<ul style="list-style-type: none"> • Service recharge • Calculation of electricity, water supply and other supply bills
FEBRUARY	Chapter-10 Limits and Continuity	<ul style="list-style-type: none"> • Concepts of limit and continuity of function • Instantaneous rate of change
	Chapter-11 Differentiation	<ul style="list-style-type: none"> • Differentiation as a process of finding derivative • Derivatives of algebraic functions using chain rule
MARCH	Term-2 Examination	

BIOLOGY

Prescribed Books:

1. NCERT – Text Book
2. Biology – practical manual
3. Exam Idea/together with

MONTH	TOPICS	CHAPTER / SUB TOPICS
TERM I		
MAY	Chapter-1: The Living World	<ul style="list-style-type: none"> • What is living? Biodiversity; Need for classification; three domains of life; concept of species and taxonomical hierarchy; binomial nomenclature.

JUNE	Chapter-2: Biological Classification	<ul style="list-style-type: none"> • Five kingdom classifications; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Varroids.
JULY	Chapter-3: Plant Kingdom Chapter-5: Morphology of Flowering Plants	<ul style="list-style-type: none"> • Salient features and classification of plants into major groups - Algae, Bryophyta, Pteridophyte and Gymnospermae. (Salient and distinguishing features and a few examples of each category). • Morphology of inflorescence and flower, Description of 01 family: Solanaceae or Liliaceae (to be dealt along with the relevant experiments of the Practical Syllabus).
AUGUST	Chapter-4: Animal Kingdom Chapter-7: Structural Organization in Animals	<ul style="list-style-type: none"> • 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). <p>Animal tissues.</p>

	Chapter-21: Neural Control and Coordination	<p>muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.</p> <ul style="list-style-type: none"> • 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.
JANUARY	Chapter-22: Chemical Coordination and Integration	<ul style="list-style-type: none"> • 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, goitre, exophthalmic goitre, diabetes, Addison's disease.
FEBRUARY	Chapter-15: Plant - Growth and Development	<ul style="list-style-type: none"> • 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.
MARCH	Annual Examinations	

ECONOMICS

Prescribed Books:

Statistics: TR Jain & VK Ohri

Micro Economics: TR Jain & VK Ohri

MONTH	TOPICS	CHAPTER / SUB TOPICS
TERM I		
MAY	<ul style="list-style-type: none"> • Introduction (Statistics) • Measures of Central tendency (Statistics) 	<ul style="list-style-type: none"> • About statistics, its importance & Scope • Mean
JUNE	<ul style="list-style-type: none"> • Measures of Central tendency (Statistics) 	<ul style="list-style-type: none"> • Mean • Median and mode
JULY	<ul style="list-style-type: none"> • Introduction (Micro economics) • Consumer's Equilibrium 	<ul style="list-style-type: none"> • Economics and Economy • Central problems of an economy

		Consumer's equilibrium – Utility Analysis
AUGUST	<ul style="list-style-type: none"> • Consumer's Equilibrium • Collection of data 	<ul style="list-style-type: none"> • Consumer's equilibrium - Indifference curve approach • Sources of collecting data Census and Sample methods of collecting data.
SEPTEMBER	<ul style="list-style-type: none"> • Demand 	<ul style="list-style-type: none"> • Theory of demand • Price elasticity of demand
OCTOBER	<ul style="list-style-type: none"> • Organisation of Data • Presentation of Data 	<ul style="list-style-type: none"> • Meaning and types of variables; Frequency Distribution. Tabular, Diagrammatic, Frequency diagrams and Arithmetic line graphs
NOVEMBER	REVISION & EXAM	
DECEMBER	<ul style="list-style-type: none"> • Producer Behaviour and Supply • Cost 	<ul style="list-style-type: none"> • Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product. Returns to a Factor • Meaning, Types of costs.
JANUARY	<ul style="list-style-type: none"> • Revenue • Forms of Market and Price Determination under Perfect 	<ul style="list-style-type: none"> • Revenue - total, average and marginal revenue - meaning and their relationship.

	<p>Competition with simple applications.</p> <ul style="list-style-type: none"> Measures of Dispersion 	<ul style="list-style-type: none"> Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply. Simple Applications of Demand and Supply: Price ceiling, price floor. Absolute dispersion standard deviation); relative dispersion coefficient of variation
FEBRUARY	<ul style="list-style-type: none"> Correlation Index number 	<ul style="list-style-type: none"> meaning and properties, scatter diagram; Measures of correlation - Karl Pearson's method (two variables ungrouped data) <p>meaning, types - wholesale price index, consumer price index, uses of index numbers; Inflation and index numbers.</p>
MARCH	REVISION & EXAM	

Psychology

Prescribed Books:

1. NCERT
2. Full marks

MONTH	TOPICS	CHAPTER / SUB TOPICS
TERM I		

MAY	Chapter 1- What is Psychology	<ul style="list-style-type: none"> • What is psychology • Understanding mind and behaviour • Popular notions about psychology • Evolution of Psychology • Development of Psychology in India • Branches of psychology • Themes of research & application • Psychology & other disciplines • Psychology at work • Psychology in everyday life
JUNE	Chapter 2- Methods of Enquiry in psychology	<ul style="list-style-type: none"> • Goals of psychological enquiry • Nature of psychological data • Methods in psychology (Observation & Experimental method)
JULY	Chapter 2- Methods of Enquiry in psychology	<ul style="list-style-type: none"> • Methods in psychology (Correlational research, Survey, Psychological testing, Case Study) • Limitations of psychological enquiry • Ethics in psychological research
AUGUST	Ch 3: Biological bases of human behaviour	<ul style="list-style-type: none"> • Evolutionary perspective • Biological and cultural roots • Biological basis of behaviour • Hereditary, genes and behaviour • Socio-cultural perspective on behaviour • Socialisation • Enculturation • Acculturation
SEPTEMBER	Revision for Half yearly Exam Project Work	Project- Interview on Mental health OR Presentation on any famous psychologist

TERM II		
OCTOBER	Ch 5: Sensation, Attentional and Perceptual processes	<ul style="list-style-type: none"> • Knowing the world • Nature & varieties of stimulus • Attentional processes • Perceptual processes • Principles of perceptual processes • Perception of space, depth & distance • Perceptual constancies • Illusions • Socio-cultural influences on perception
NOVEMBER	Ch 4: Human Development	<ul style="list-style-type: none"> • Overview of developmental changes • Changes during childhood & infancy • Challenges in adolescence • Adulthood • Old age
DECEMBER	Ch 6: Learning	<ul style="list-style-type: none"> • Nature of learning • Paradigms of learning • Cognitive learning • Verbal learning • Learning disability
JANUARY	Ch 7: Memory	<ul style="list-style-type: none"> • Nature of memory • Information processing model • Levels of processing approach • Types of long-term memory • Memory as a constructive process • Nature of forgetting • Enhancing memory
FEBRUARY	Revision	

MARCH	Annual Examinations

IP

Prescribed Books:
Sumita Gupta

MONTH	TOPICS	SUB-TOPICS
MAY & June	Introduction to computer system Getting Started with python	Introduction to computers and computing: evolution of computing devices, components of a computer system and their interconnections, Input/Output devices. Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns. Software: purpose and types – system and application software, generic and specific purpose software. Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants
JULY	Getting Started with python	, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation of expressions, comments, input and output statements, data type conversion, debugging

	Python fundamentals and Data Handling	Control statements: if-else, for loop.
AUGUST	List manipulation	List operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions.: len(), list(), append(), extend(), insert(), count(), find(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum()
SEPTEMBER(22 days)		Half yearly exam revision

TERM -2

MONTH	TOPICS	SUB-TOPICS
OCTOBER (20 DAYS)	Dictionary	concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions: len(), dict(), keys(), values(), items(), get(), update(), clear(), del()
NOVEMBER	Database concepts	Introduction to database concepts and its need, Database Management

		System. Relational data model: concept of attribute, domain, tuple, relation, candidate key, primary key, alternate key, foreign key.
DECEMBER	PROJECT WORK+ PROGRAM FILE Introduction to the Emerging Trends	Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.
JANUARY	Database concepts SQL	Structured Query Language: Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL: Creating a database, using database, showing tables using MySQL, Data Types : char, varchar, int, float, date.

		Data Definition Commands: CREATE, DROP, ALTER (Add and Remove primary key, attribute). Data Query Commands: SELECT-FROM- WHERE, LIKE, BETWEEN, IN, ORDER BY, using arithmetic, logical, relational operators and NULL values in queries, Distinct clause Data Manipulation Commands: INSERT, UPDATE, DELETE.
FEBRUARY		REVISION FOR FINAL EXAM
MARCH		

IT

Prescribed Books:

1. NCERT

MONTH	CHAPTER NO. & NAME	TOPICS
JULY	Unit 1 : Communication Skills-III Unit -1 : Computer Organization Unit 2 : Self-Management Skills-III	Introduction to Fundamentals of Computer and its use • Characteristics of computer • Components of computer • Block diagram of computer • Processes of task execution • steps of process execution • function of various components of computer and CPU identify various components of computer • appreciate function and use of I/O devices • learn about various storage devices used in computer • various memory units of storage

AUGUST	Unit 3 : ICTS kills-III Unit-3 : Office Automation Tools Unit -2 : Networking And Internet	Introduction <ul style="list-style-type: none"> • Need and benefits of networking • Components of a network: sender, receive, message, channel, <ul style="list-style-type: none"> • Transmission Medium (wired and wireless) • Telephone Network standard (technology used in each generation) • Working Devices (RJ45 connector, Modem, Repeater, Hub, Switch, Bridge, Gateway, Routers) • Network Topology (Bus, Star, Ring, Tree, Mesh) • Types of Networking (LAN, MAN, WAN, PAN, VAN)
SEPTEMBER	Unit 3 : ICT Skills-III Unit-3 : Office Automation Tools	<ul style="list-style-type: none"> • introduction work with Word processing applications like OpenOffice, Spreadsheets, PowerPoint
OCTOBER	Unit 4 : Entrepreneurial Skills-III Unit-4: RDBMS	Understand Relational Database Management System <ul style="list-style-type: none"> • Introduction To MYSQL • Classification of MYSQL commands (DDL, DML) • Data Types in MYSQL (char, varchar, decimal, int, date, time) • Create database • Create table • View structure of a table • Add constraints in table • Modify structure • Show all tables created in a database • Delete structure
NOVEMBER	Unit 4 : Entrepreneurial Skills-III Unit-4: RDBMS	<ul style="list-style-type: none"> • Add rows to a table • Viewing content of a table • Display selected data depending on specific condition • Display data in a order • modify the data stored in a table

		• delete contents of a table
DECEMBER	Unit 5 : Green Skills-III Unit-5: Fundamentals of Java	Understand Integrated Development Environment (NETBEANS) JAVA Programming
JANUARY	Unit 5 : Green Skills-III Unit-5: Fundamentals of Java	JAVA Programming
FEBRUARY	Revision	
MARCH	Revision	

PAINTING

Prescribed Books:

1. History of Indian art
2. Aesthtics of Indain art

Term-1

MONTH & NO. OF DAYS	TOPIC	SUB TOPICS
APRIL 17	Theory- • Introduction of art Practical – • Still life (pencil shading) • Object drawing	Meaning , Fundamental of art i.e. limbs of art ,Element of art, principal of art.

MAY 9	Theory- ● Introduction of colours Practical- Still life(colour)	Types of colours
JUNE 10	Theory- ● Pre historic rock painting ● Indus valley civilisation Practical – Nature study	Introduction , paintings, different types of artifacts of Indus valley civilization
JULY 21	Theory- ● Gandhara school of art (half chapter) Practical – Landscape or seascape	Introduction , 3 artwork of Gandhara school
AUGUST 22	Theory- ● Gandhara school of art (half chapter) Practical- ● Composition ● Cityscape	Description of artwork
Term-2		
SEPTEMBER 16	Theory-	Origin , types , technique they used , characteristics

	<p>Ajanta Paintings</p> <p>Practical –</p> <p>Book cover designing (zentangle)</p>	
<p>OCTOBER 18</p>	<p>Theory-</p> <p>South Indian sculpture</p> <p>Practical –</p> <p>Folk art</p>	<p>Introduction , types of sculpture , description of sculpture</p>
<p>NOVEMBER 17</p>	<p>Revision</p> <p>Practical- canvas painting</p>	<p>-</p>
<p>DECEMBER 17</p>	<p>Revision</p>	<p>-</p>
<p>JANUARY 18</p>	<p>Revision</p>	<p>-</p>
<p>FEBRUARY 18</p>	<p>Revision</p>	
<p>MARCH</p>		

ACCOUNTANCY

Prescribed Books:

1. Double Entry Book Keeping (T.S.Grewal, Publishers: S.Chand)

TERM-I

Month	Topics	SubTopic(s)
March		
April	Introduction of accounting, accounting terms, Theory base of accounting	Meaning, Importance, limitation and functions of accounting, Accounting/Accountancy/Bookkeeping Terminologies used in accounting, Accounting standards, Convention and Principles of accounting.
May	Base of accounting, Accounting equation, rules of debit & credit	Cash and Accrual basis of accounting, Practical problems of accounting equation, Conventional and modern approach of debit and credit.
June	Accounting Equation, rules of debit & credit	Practical problems of accounting equation, Conventional and modern approach of debit and credit.
July	Vouchers, Journal & Ledger, Subsidiary books	Types of vouchers, Format of Journal and Ledgers, Process of Journalizing ,Ledger posting, Format and process of preparing subsidiary books
August	Reconciliation	Bank Reconciliation
September	Depreciation, provisions & reserves	Importance, methods, Straight line, diminishing method, types of reserves
		Term-II
October	Bills of exchange, rectification of errors Trial Balance, Bank	Journal Entries in different books, Rectification of errors Procedure of TB, BRS, Reasons of differences, procedure OF Preparing BRS

November	Final Accounts and adjustments	Trading and profit and loss, Balance sheet
December	Final Accounts and adjustments	Adjustment in preparing final accounts
January	Accounts adjustments Project	Adjustment in preparing final accounts
February	Revision	
March		

BUSINESS STUDIES

Prescribed Books:

- BUSINESS STUDIES (N.C.E.R.T.)**

Term-I

Month	Topics	Sub Topics
March		
April	Evolution and Fundamental of business	Nature and Significance of Business, Primary and Secondary Market, Business, Employment, Profession
May	Forms of Business Organization,	Sole proprietorship, Partnership, HUF, Cooperative society, Company,
June	Forms of Business Organization,	Sole proprietorship, Partnership, HUF, Cooperative society, Company,
July	Public and Private Organisation	Public undertaking and its objectives, Role.

	Business service	Private, Departmental, Statutory and Govt Company Types of business services, Banking, Types of Banks, Advertising, Transportation, Insurance, Types of Insurance, Principles of Insurance, Ware housing, Types of Warehouse, Benefits of warehouse
August	Emerging mode of business	Traditional Business, E-Commerce, Online banking, types of payment, CSR, Arguments for and against CSR, Business
September	Social Responsibility of Business and Business ethics	CSR, Arguments for and against CSR, Business
		TERM-II
October	Small business Sources of business finance Internal Trade	Small, Tiny and Cottage industries, Role of small industries, Problems of small industries. Equity, Debt, Long term, Short term Internal trade, Retail trade, wholesale trade, Benefits of different trade to various stakeholders

November	International Trade-1	Comparative cost advantage, Importance and benefits of international trade, Methods of engaging in International trade. Licensing, Franchising, Contract manufacturing, Joint venture, Wholly owned subsidiary company
December	International Trade-2	Procedure of Import, Procedure of Export, WTO and its objectives
January	Project plus revision	Meaning of single entry system, Difference between single and double entry system, Statement of affairs, Conversion methods
February	Revision	
March		

POLITICAL SCIENCE

Prescribed books :

- 1.** NCERT
- 2.** NEW SARASWATI HOUSE
- 3.** EXAM IDEA

MONTH	TOPIC	SUB-TOPICS
May	Constitution: why and How? (Term I)	Meaning of constitution, constituent assembly, functions of the constitution, Need to adapt political philosophy, Indian independence act, sources of the constitution.

June	Development. (Term I)	Introduction, The challenges of Development, Criticism of Development Model, The social & environmental cost of Development, Assessing Development,
July	Election and Representation. (Term I) Equality. (Term II)	Democracy, direct/indirect election, Features of Indian electoral system, Election commission and its functions. Suggestions of electoral reforms, Election system in India. Positive forms of equality, types of equality, Basic principles, Correct perceptions,
August	Local Government (Term I)	The Local Governments, Importance of Local governments, meaning of the community development, Decentralization of power, status of local government in the constitution, Basis features of Rural and Urban Local Governments, 73 rd and 74 th amendments, State election commission, state finance commission.

	Rights (Term I)	Meanings of rights, characteristics of rights, Fundamental rights, Universal human rights, Legal rights, Duties, the kind of duties, Rights and duty.
September	Half yearly exam revision	Half yearly exam revision
October	Judiciary (Term II)	Justice, Rule of law, Independence of Judiciary, organization of Judiciary, Functions of Judiciary, Appointments of Judges, Tenure & salary, Method of removal, Jurisdiction and functions of the supreme court of India, structure of Judiciary.

November	<p>Executive (Term II)</p> <p>Legislature (Term II)</p>	<p>Executive – meaning and scope, parliamentary executive, types of executive, Functions of executive, Advantage of parliamentary system, the duties of prime minister, president and vice president. Bureaucracy, Classification of civil services.</p> <p>Parliament, Lok sabha and Rajya sabha, relation between the two houses of the parliament, powers and functions of the parliament, various stages in law making processes, Types of Bills.</p>
December	<p>Social Justice. (Term II)</p>	<p>Meaning of justice, philosopher’s approach of justice, Fundamental elements of Justice, Aspects of Justice, Provision for social justice in Indian Constitution.</p>
January	<p>Freedom</p>	<p>Dimension of Freedom, Types of freedom, liberty and law , Freedom struggle of south Africa and Nepal.</p>

	(Term II)	
February	Revision	

HISTORY

Prescribed Books:

1. NCERT
2. NEW SARASWATI HOUSE
3. EXAM IDEA

Month	Topic	Sub-Topic
MAY	Writing and city life (chapter continued) (Term 1)	the system of writing, Literacy, the Uses of writing, Temples and kings, Life in the city development of writing, the system of writing, Literacy, the Uses of writing

JUNE+ JULY	2. An Empire Across three continents (Term 1)	The Early Empire, The Third Century Crisis, Gender , Literacy and Culture, Economic expansion, Controlling workers, Social Hierarchies, Late Antiquity.
AUGUST	3.The central Islamic lands (Term 1)	Rise of Islam in Arabia, The Caliphate, expansion, Civil wars, The Umayyads and Centralisation of polity, the Abbasid Revolution, Break of the Caliphate and the rise of Sultanates, The Crusades, Learning and culture.
SEPTEMBER	Revision	Half yearly exam Syllabus Revision
OCTOBER	4.Changing cultural traditions.	The revival of Italian cities, Universities and humanism, The Humanist view of history , Science and philosophy, Artists and realism, Architecture, the first printed books, the Aspirations of women, Debates within Christianity, The Copernican Revolution, Reading the universe, Renaissance in the Fourteenth Century.
NOVEMBER	5.The three orders. (Term I)	An Introduction of Feudalism, France and England, the three orders, The Manorial Estate, The knights, The church and society, the third order, factors affecting social and economic relations, Cathedral-towns, The crisis of the Fourteenth century, Political change.

DECEMBER	6.The Industrial Revolution. (Term II)	Causes of Industrial revolution in Britain, Towns, Trade and Finance , Coal and Iron, cotton spinning and weaving, steam power, canals and railways, changed lives, The workers , women, children and industrialization, protest movements, Reform through laws.
JANUARY	7.Displacing Indigenous peoples. (Term II)	European Imperialism, North America, The native peoples, Encounters with Europeans, mutual perceptions, The native peoples lose their land, the gold Rush and the growth of industries, Constitutional Rights, The winds of change , Australia.
February	8.Paths to Modernization. (Term II)	Introduction, Japan, Te political system, Meiji Restoration, Modernizing the economy, Aggressive nationalism, Westernization and tradition, China, Establishing the Republic,

SOCIOLOGY

Prescribed Books:

1. Introducing Sociology
2. Understanding Society

		<ul style="list-style-type: none"> • Political Institutions • Religion as a Social Institution • Education as a Social Institution
AUGUST	Lesson-4. Culture and Socialization.(Term-I)	<p>Culture and Socialization</p> <ul style="list-style-type: none"> • Defining Culture • Dimensions of Culture • Socialization • Agencies of Socialization
SEPTEMBER	REVISION FOR TERM-1 HALF YEARLY EXAMINATION	

TERM -2

MONTH	TOPICS	SUB-TOPICS
OCTOBER	Lesson-7. Social Change and Social order in Rural and Urban Society.(Term-II)	Social Change and Social Order in Rural and Urban Society. <ul style="list-style-type: none"> • Social Change: Types, Causes and Consequences. • Social Order: Domination, Authority and Law; Contestation, Crime and Violence. • Concepts: Village, Town and City. • Social Order and Social Change in Rural and Urban Areas
NOVEMBER	Lesson-9. Introducing Western Sociologists. (Term-II)	<ul style="list-style-type: none"> • Karl Marx on Class Conflict • Emile Durkheim : Division of Labour in society. • Max Weber: Interpretive Sociology, Ideal Type & Bureaucracy <p>Activity: Think and discuss about different conflicts that exist in the world today with the help newspaper cuttings showing the conflict between nations and blocks of nations prepare an interactive poster.</p> <p>S.NO-4.1.6.3</p>

DECEMBER	Lesson-10. Indian Sociologists.(Term-II)	<p>Indian Sociologists</p> <ul style="list-style-type: none"> • G.S. Ghurye on Caste and Race • D.P. Mukherjee on Tradition and Change • A.R. Desai on the State • M.N. Srinivas on the Village
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JANUARY	<p>REVISION FOR TERM-2</p> <p>Revision for annual exams</p>	
FEBRUARY	<p>REVISION FOR TERM-2</p> <p>Revision for annual exams</p> <p>Project Work-Youth & Technology.</p> <p>Viva – based on the project work.</p>	
MARCH	ANNUAL EXAMINATION	

Music

Prescribed books :

1. Sangeet Manjusha
2. Swarlipi sangrah

Term -1

Month	Topics	Sub-Topics
April & May	Brief study of the following: Nada, Shruti, Swar, Saptak.	<ol style="list-style-type: none">1. Definition and types of Naad2. Shruti swar vibhajan3. Deferent scale in saptak. (Mandra, madhya & taar saptak)
June & July	<ol style="list-style-type: none">1.Detail study of Raga Bhimpalasi2.Detail study of Dadra & kahrwa taal	<ol style="list-style-type: none">1. Raag Parichay2. Aaroh, awroh & pakad3. Vilambit khayal with alaap and taan4. Drut khayal with alaap and taan.5. Tala Parichay6. Notation of thah, dugun and chaugun.

August	<ol style="list-style-type: none"> 1. Brief study of Musical Elements in Natya Shastra 2. Detail study of Teentaal & Ektaal taal 3. Detail study of Raga Bihag 	<ol style="list-style-type: none"> 1. History of Natya shastra. 2. Tala Parichay 3. Notation of thah, dugun and chaugun. 4. Aaroh, awroh & pakad 5. Drut khayal & vilambit khayal with alaap and taan
September	<ol style="list-style-type: none"> 1. Detail study of Raga Bhairavi 2. Brief History of the following: Raga, Khayal 	<ol style="list-style-type: none"> 1. Raga Parichay, aaroh, awroh, pakad and drut khayal with alaap - taan 2. Definition of Raga and different style of khayal.

Term-2

Month	Topic	Sub-Topics
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October	<ol style="list-style-type: none"> 1. Brief study of the following Thaat, Jati, laya, Tala, Margi-Desi. 2. Knowledge of the structure of Tanpura 	<ol style="list-style-type: none"> 1. Definitions & the number of swaras used by the Jaati in the raga.different types of tala & ancient gayan shailly margi- desi sangeet. 2. Knowledge of tuning taanpura kharaj & jodi taar.
Novemb er	<ol style="list-style-type: none"> 1. Brief study of Dhrupad and Tarana 2. Life sketch and contribution to music of: Tansen, V.N.Bhatkhande and V.D.Paluskar 3. Raga Bhimpalasi 	<ol style="list-style-type: none"> 1. Gayan shailly history of Dhrupad and tarana. 2. Life sketch of musicians 3. Parichay and practice of raag Bhimpalasi with alaap & taan
December	<ol style="list-style-type: none"> 1. Detailed study of the following:Sangeet Parijat 2. Dhrupad 	<ol style="list-style-type: none"> 1. Detail study of Sangeet Parijat granth. 2. Dhrupad Gayan shaily in Bhimpalasi Raga with laykari.
January	<ol style="list-style-type: none"> 1. Detail study of Chautala 2. Raag Bhimpalasi, & Dhrupad 	<ol style="list-style-type: none"> 1. Tala Parichay 2. Notation of thah, dugun and chaugun. 3. Practice of Dhrupad and Raga.

February		Revision for final exam
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Physical Education

Prescribed Books:

1. Health and Physical Education by Saraswati
2. Essentials of Physical Education by Sultan Chand

TERM-1

MONTH	TOPICS	SUB-TOPICS
APRIL & MAY	Unit-1 Changing Trends & Career in Physical Education Unit-2 Olympic Value Education	<ul style="list-style-type: none"> • 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 • Olympics, Paralympics and Special Olympics • Olympic Symbols, Ideals, Objectives & Values of Olympism • International Olympic Committee

JULY	<p>Unit 3- Physical Fitness, Wellness & Lifestyle</p> <p>Unit 4- Physical Education & Sports for CWSN (Children with Special Needs- Divyang)</p>	<ul style="list-style-type: none"> • Meaning & Importance of Physical Fitness, Wellness & Lifestyle Motor development & factors affecting it • Components of physical fitness and Wellness • Components of Health related fitness ❖ 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
AUGUST	<p>Unit 5 Yoga</p> <p>Unit 6- Physical Activity & Leadership Training</p>	<ul style="list-style-type: none"> • Meaning & Importance of Yoga • Elements of Yoga • Introduction - Asanas, Pranayam, Meditation & Yogic Kriyas • Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana &

		<p>Sashankasana, Naukasana, Vrikshasana (Tree pose), Garudaasana (Eagle pose)</p> <ul style="list-style-type: none"> • 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
SEPTEMBER(22 days)		Half yearly exam revision

TERM -2

MONTH	TOPICS	SUB-TOPICS
OCTOBER (20 DAYS)	<p>Unit 9 Psychology & Sports</p>	<ul style="list-style-type: none"> • Definition & Importance of Psychology in Phy. Edu. & Sports • Define & Differentiate Between Growth & Development • Developmental Characteristics At Different Stages of Development

		<ul style="list-style-type: none"> • Adolescent Problems & Their Management
NOVEMBER	<p>Unit 10-Training and Doping in Sports Unit 8 Fundamentals of Anatomy, Physiology & Kinesiology in Sports</p>	<ul style="list-style-type: none"> • 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 <p>Definition and Importance of Anatomy, Physiology & Kinesiology</p> <ul style="list-style-type: none"> • 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

DECEMBER	Unit 7- Test, Measurement & Evaluation	<ul style="list-style-type: none"> • Components of physical fitness and Wellness • Components of Health related fitness ❖ 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
JANUARY		Revision for Term-2
FEBRUARY		REVISION FOR FINAL EXAM
MARCH		

