



CLASS ANNUAL PEDAGOGICAL PLAN (2023-24)

BAL BHARATI PUBLIC SCHOOL, DWARKA



INDEX

S. No.	CONTENT	PAGE NO.	
1.	English	02	09
2.	Biology	10	17
3.	Mathematics	18	22
4.	Physics	23	32
5.	Chemistry	33	48
6.	Economics	49	57
7.	Business Studies	58	62
8.	Painting	63	68
9.	Psychology	69	72
10.	Physical Education	73	78
11.	Accountancy	79	87
12.	Comp. Science	88	90

ENGLISH				
MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING METHOD
JULY	Hornbill - The Portrait of a Lady, A Photograph, Snapshot- The Summer of The Beautiful White Horse	-Reading and appreciating the text. -Understanding the plot, the style of writing and the genre. -Understanding the characterization and other elements of a story. Reference to the Context Critical Analysis/Theme, Their application in the current times -Rubrics of assessment - content relevance, brevity, fluency, flow of ideas grammar, sentence structures, spellings Common errors made and how to avoid them. Usage and relevance in today's times.	-Evaluate -Analyze the characters and given context -To scan the text for given information -Extrapolate -Think critically	• Guided Discussion • Problem solving based learning • Peer teaching • Self-assessment

August	Hornbill: Discovering Tut, The Laburnum Top, Reading: Reading: Comprehension Passages Note making Writing: Debate Writing Grammar: Integrated Grammar	Reading and appreciating the text. Understanding the plot, the style of writing and the genre. Word meanings - expanding the vocabulary with new words, usage of new words. Understanding the characterization and other Reference to the Context, Questions and Answers, Moral value imparted through the story/poem.	-To plan, organise and present ideas coherently -To use an appropriate style and format of writing - To interpret the poem by relating the theme to the present-day context -To understand and interpret spontaneous spoken discourse in familiar social situations	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
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September	Hornbill: We're Not Afraid to Die..., Snapshots: The Address Reading: Unseen passage for comprehension Writing: Poster Grammar: Integrated Grammar	-Facilitate making connections between similar situations in different storylines/life experiences -Help learners distinguish different perspectives; analyzing them; drawing conclusion/s -Encourage the uncovering of motives -Familiarizing the learners with specific background information of author / Book excerpt /history -Learners would be able to express ideas fluently and spontaneously without difficulty in expressions, grammar usage, format usage, relevant vocabulary.	-To read extensively on their own -To understand the main theme and the characters of the story. -To use an appropriate style and format to draft a poster	• Guided Discussion • Problem solving based learning • Peer Teaching • Guided Writing • Self-assessment
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October	Hornbill: The Voice of The Rain Childhood, Snapshots: The Tale of Melon city Reading: Note making Writing: Classified Advertisements Grammar: Integrated Grammar	-Students would be able to relate the characteristics of literature to larger cultural and human values. -Facilitate meaning making connections between similar situations in different storylines/life experiences. -To understand the significance of water -Understanding the universal theme of relationship and the sanctity of it. -	-To revise and reinforce structures already learnt -To sensitize the learners towards the growing generation gap -To think on their own and express their ideas using their knowledge and imagination -To express their understanding through discussions.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
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November	Hornbill: Silk Road Reading: Unseen passage for comprehension, Note making Grammar: Integrated Grammar	-Sensitize learners to the imminent issues of nature and its beauty/declining health of planet Earth -To facilitate making connections between similar situations in different storylines/life experiences -To read text and correlate them with personal experiences-to build up didactics, empathy and appreciation of nature	-To write coherently by introducing, developing and concluding a topic -To read extensively on their own -To understand the main theme and the characters of the story. -To analyse, interpret and infer the text - To use an appropriate style and format for note making.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
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December	Hornbill: The Adventure Snapshots: Birth Reading: Unseen passage for comprehension, Note making Writing: Speech writing	-To allow problem solving: identifying the problem; considering the options; weighing the pros and cons of each option; reaching an empathetic decision with the protagonist -Facilitate making connections between similar situations in different storylines/life experiences -To help learners distinguish different perspectives; analyzing them; drawing conclusion/s -To encourage the uncovering of motives.	-To relate the learners' knowledge of the historical facts to the text - To enhance their problem-solving skills. - To inculcate the values of determination and willpower. - To read extensively on their own -To understand the main theme and the characters of the story.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
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January	Snapshots: Mother's Day Hornbill- Father To Son Reading: Unseen passage for comprehension, Note making Grammar: Integrated Grammar Revision: All units & topics	-To facilitate making connections between similar situations in different storylines/life experiences through the genre of theatre/drama that is more credible and realistic -Comprehend the mother's stereotype and understand her significant role in family bonding-to empathize with her problems and seek resolution.	-Analyze the characters and given context - To scan the text for given information -Extrapolate -Think critically To relate the learners' knowledge of the historical facts to the text - To enhance their problem-solving skills.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
February- March	Revision and final exam			

Question Paper Design 2022-23 English CORE XI		
Section	Competencies	Total marks
Reading Skills	Conceptual understanding, decoding, Analysing, inferring, interpreting, appreciating, literary, conventions and vocabulary, summarizing and using appropriate format/s.	26
Creative Writing Skills	Conceptual Understanding, application of rules, Analysis, Reasoning, appropriacy of style and tone, using appropriate format and fluency, inference, analysis, evaluation, and creativity.	23
Literature Textbooks and Supplementary Reading Texts	Recalling, reasoning, appreciating literary convention, inference, analysis, creativity with fluency, Critical Thinking	31
TOTAL	80	
Assessment of Listening and Speaking Skills		
Listening	5	
Speaking	5	
Project Work	10	
GRAND TOTAL	100	

BIOLOGY

LEARNING OBJECTIVES:

The prescribed syllabus is expected to

1. Promote understanding of basic principles of biology.
2. Learning of emerging knowledge and its relevance to individual and society
3. Encourage rational/specific attitude to issues related to population, environment and development
4. Enhance awareness about environment issues and problems and the appropriate problems.
5. Create awareness amongst the learners about variations amongst the living and developing respect for the diversities
6. Appreciate that the most complex biological phenomenon are also built on essentially simple processes.

It is expected that the students would get an exposure to various branches of Biology in the syllabus in a more contextual and friendly manner.

TEXTBOOK :

Biology VolII : by NCERT, New Delhi

RECOMMENDED BOOKS:

Lab Manual for Biology: Comprehensive Biology

Biology by KN Bhatia

Month	Course content	Learning outcome	Skill	Teaching Method
JULY	Chapter 17: Breathing and exchange of gases Chapter 20: Locomotion and movement. Chapter 5: Morphology of Flowering Plants Chapter-6: Anatomy of Flowering Plants Practical work: 1. Different types of inflorescence (cymose and racemose). 2. Human skeleton and different types of joints with the help of virtual images/models only. 3. 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,	1. To relate basic functioning of human body wrt respiration and muscular system. 2. To apply basic knowledge gained about the structure and functioning about the systems in practical aspects of life 3. To apply basic knowledge gained with various emergency situations like choking and unconsciousness and in various disorders	• Critical thinking • Analysing • Hands on experience • Explore • Identify and draw • Understanding	• Guided Discussion • Problem solving based learning • Peerteaching • Self-assessment • Presentation

	venation, simple and compound). 4. Preparation and study of T.S. of dicot and monocot roots and stems (primary).			
AUGUST	Chapter 18: Body fluid and Circulation Chapter 19: Excretory products and their elimination Chapter 21 Neural control and coordination Chapter 22 Chemical coordination and integration PRACTICAL WORK: 1. Study of osmosis by potato osmometer. 2. Study of plasmolysis in epidermal peels (e.g. Rhoeo/lily leaves or flashy scale leaves of onion bulb). 3. Study of distribution of stomata on the upper and lower surfaces of leaves.	1. To relate basic functioning of human body wrt circulatory system. 2. To apply basic knowledge gained about the structure and functioning about the systems in practical aspects of life like reading ECG. 3. To be able to read Blood reports 4. To be able to use ABO and Rh blood grouping in actual life situations. 5. To relate basic functioning of human body wrt excretion, nervous system and endocrine system with practical aspects of life like hypertension, diabetes etc. 6. Will be able to relate the role of kidneys in filtering blood and kidney malfunctioning to emergency situations like dialysis 7. To apply gained knowledge to real life situations like diseases related to malfunctioning of glands.	• Understanding • Observe • Recognize • Application • Analysis	• Guided Discussion • Problem solving based learning • Peerteaching • Self-assessment • Presentation/ project work

SEPTEMBER	Chapter-7: Structural Organisation in Animals PRACTICAL WORK: 1. Comparative study of the rates of transpiration in the upper and lower surfaces of leaves. 2. Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials.	1. Students will be able to identify Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog	• Understanding • Draw/Synthesis • Critical Thinking • Application • Analysis, • Problem Solving	• Guided Discussion • Problem solving based learning • Peer teaching • Self-assessment • Project work
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OCTOBER	UNIT IV PLANT PHYSIOLOGY Chapter 13: Photosynthesis in higher Plants Chapter 14 Respiration in plants Chapter 15 Plant growth and development UNIT III CELL: structures and functions Chapter 8 Cell - The UNIT of Life Practical Work: 1. Separation of plant pigments through paper chromatography. 2. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds. 3. Test for presence of urea in urine. 4. Test for presence of sugar in urine. 5. Test for presence of albumin in urine. 6. Test for presence of bile salts in urine	1. Gain Knowledge on different aspects of photosynthesis and will be able to correlate the role of different raw materials in it. 2. Will be able to understand energy transformation in the process of photosynthesis and respiration. 3. Will be able to analyze the differences in different pathways of carbon fixation and correlate the same with anatomical details of leaf types. Gain knowledge about concepts of Cell and other different organelles and apply the concepts to higher domains when needed. 4. Able to apply knowledge gained in classifying cells as pro/eukaryotic. 5. Able to apply knowledge about the structure of chromosomes and DNA to higher domain of knowledge.	• Understanding • Critical Thinking • Application • Analysis, • Problem Solving	• Guided Discussion • Self-assessment • Presentation
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NOVEMBER	Chapter 9 Biomolecules Chapter 10 Cell Cycle and Cell division Practical Work Mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.	1. Gain knowledge about concepts of Cellular biomolecules and apply the concepts to higher domains. 2. Will be able to classify biomolecules as biomacromolecules or biomicromolecules. 3. Able to relate the usefulness of biomolecules in body. 4. Able to understand the functioning of enzymes in living system. 5. Able to relate the structure of chromosomes in various stages of cell division. 6. Able to relate the concept of cell cycle to real life situations like cancer, tumoretc.	• Understanding • Critical Thinking • Application • Analysis, • Problem Solving	• Guided Discussion • Problem solving based learning • Peerteaching
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DECEMBER	Chapter 1. Living world Chapter 2. Biological classification Chapter 3: plant kingdom Chapter 4: animal kingdom Practical work: 1. 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. 2. 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.	1. Gain knowledge about concepts of Biodiversity. 2. Apply gained knowledge to daily life situations where students can identify and classify the diverse life forms.. 3. Will admire and value diverse life forms 4. To be able to relate gained theory knowledge in practicals and daily life. 5. Gain basic knowledge about Kingdom plantae w.r.t habitat, alternation of generations, reproduction in various groups of plants and can correlate their structures with evolution 6. Gain basic knowledge about Kingdom	• Understanding • Draw/Synthesis • Critical Thinking • Application • Analysis, • Problem Solving	• Guided Discussion • Peerteaching • Self-assessment • Project work/ Presentation
JANUARY	Unit 1 : DIVERSITY OF LIVING WORLD (to be continued....)			

UNIT	TITLE	MARKS
I	Diversity of Living Organisms	15
II	Structural Organization in Plants and Animals	10
III	Cell: Structure and Function	15
IV	Plant Physiology	12
V	Human Physiology	18
	TOTAL	70

MATHEMATICS

LEARNING OBJECTIVES

1. To enable the students to reinforce mathematical skills and reasoning through clear arguments.
2. To strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
3. To enable students enhance their mental calculations.
4. To promote problem solving abilities and creative thinking in learners.

TEXT BOOK

MATHEMATICS - by NCERT

RECOMMENDED BOOKS:

Ncert Exemplar

MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHINGAIDS
JULY	Chapter 3: Trigonometric Functions	➤ To understand functions; its range, domain ➤ To learn about the different units of measurement of an angle ➤ To understand signs of trigonometric functions ➤ To solve trigonometric ratio of compound angles; trigonometric equations	Evaluate, analyze, extrapolate, think critically	Exemplar NCERT/ Extramarks Module of T- Functions

JULY	Chapter 5: Complex numbers and Quadratic Equations	➤ To understand imaginary numbers ➤ How to apply different properties of complex numbers	Logical thinking, Observational skills, Recognize ,structure, Evaluation	Exemplar NCERT / Extramarks Module of Complex Numbers
AUGUST	Chapter 1: Sets Chapter 2: Relations and Functions Chapter 6: Linear Inequalities	➤ Students will learn sets; their representation ➤ Students will understand different types of sets ➤ Students will learn about relation between element of 2 sets ➤ Students will understand function, its domain & range ➤ Students would be able to find the solution of linear inequality algebraically and graphically	Logical thinking, Observational skills, Recognize ,structure, Evaluation Evaluate, analyze, recall, extrapolate, think critically Evaluate, analyze, recall, extrapolate, represent graphically	Exemplar NCERT / Extramarks Module of -Sets Exemplar NCERT / Extramarks Module of Relations and Functions Exemplar NCERT / Extramarks Module of Linear Inequalities

November	Chapter 12: Introduction to Three Dimensional Geometry Chapter Chapter 13: Limits and Derivatives	➤ To understand the concept of three dimensional geometry and its properties. ➤ Students would be able to critically analyze the notion of limits & solve various limits ➤ Students would be able to apply their understanding in the application of calculus.	Evaluate, analyze, recall, extrapolate, think critically	Exemplar NCERT / Extramarks Module of 3-D Geometry Exemplar NCERT / Extramarks Module of Limits and Derivatives
December	Chapter 15: Statistics Chapter 16: Probability	➤ Students would critically analyze and apply their knowledge of measure of dispersion ➤ Students would be able to find the probability of various event	Evaluate, analyze, think critically Evaluate, analyze, think critically	Exemplar NCERT / Extramarks Module of Statistics Exemplar NCERT / Extramarks Module of Probability
Jan-March	Revision and Final Exam			

Mathematics

UNITS		Marks	
1	SETS AND FUNCTIONS	23	Time: 3 hrs. Max Marks. 80, for the written exam
2	ALGEBRA	25	
3	CALCULUS	08	
4			
5	CO ORDINATE GEOMETRY	12	
6	STATISTICS AND PROBABILITY	12	
	Total	80	
	Internal assessment	20	

PHYSICS

LEARNING OBJECTIVES

1. Strengthen the concepts developed at the secondary stage to provide firm foundation for further learning in the subject.
2. Expose the learners to different processes used in Physics-related industrial and technological applications.
3. Develop process-skills and experimental, observational, manipulative, decision-making and investigatory skills in the learners.
4. Promote problem solving abilities and creative thinking in learners.

TEXT BOOK

PHYSICS, Part – I & II: by NCERT

RECOMMENDED BOOKS

TOGETHER WITH PHYSICS LAB MANUAL: by Rachna Sagar

Publications FUNDAMENTALS OF PHYSICS: by RASNIK & HALLIDAY

MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING METHOD
JULY	Ch 2: Units and Measurement PRACTICALS <i>Section A Experiments</i> 1A. To measure	The students will be able to: • Differentiate between fundamental and derived units. • Differentiate between accuracy and precision in measurements. • Differentiate between systematic errors and random errors.	• Application and Analysis • Understanding • Evaluate and inference. • Collaborating Learning • Critical thinking	• Demonstration cum lecture method • Guided Discussion • Activity based teaching • Problem solving based learning

	diameter of a small spherical/cylindrical body using Vernier Callipers. 1B. To measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.	• Understand how errors combine in different mathematical operations as combination of errors, Significant figures. • Understand measurement of large distances through parallax method. • Write dimensional formula for given physical quantities. • Understand applications of dimensional analysis.	• Problem solving	• Peerteaching
AUGUST	Ch 3: Motion in a straight Line. Ch 4: Motion in a plane. PRACTICALS: <i>Section A Experiments</i> 2A. To measure diameter of a given wire using screw gauge. 2B. To measure thickness of a given sheet using screw	The students will be able to: • Develop meaning of Distance, Displacement, Speed, Velocity and Acceleration. • Conceptualize uniform and non-uniform motion, average speed and velocity, uniformly accelerated motion. • Elementary concepts of differentiation and integration for describing motion. • Obtain equations of motion using calculus method. • Understand the concept of	• Collaborating Learning • Critical thinking • Problem solving • Application and Analysis • Understanding • Evaluate and inference.	• Implementation of 5E's • Demonstration cum lecture method • Guided Discussion • Activity based teaching • Problem solving based learning • Peerteaching

	gauge.	relative velocity. • Solve problems using equations of motion and relative velocity. • Understand addition, subtraction and multiplication of vectors. • Obtain laws of vector addition- triangle & parallelogram law. • Resolution of a vector in a plane – rectangular. • Understand Projectile Motion and obtain relation between its different physical quantities. Explain uniform circular motion.		
SEPTEMBER	Ch 5: Laws of Motion Ch 6: Work, Energy and Power PRACTICALS: <i>Section A Experiments</i> 3. To find the weight of a given body using parallelogram law of	The students will be able to: • State the three laws of motion and apply it to daily life applications (recapitulation only). • State law of conservation of linear momentum and its applications. • Conceptualize equilibrium of concurrent forces. • Understand the types of friction	• Understanding • Evaluate and inference. • Collaborating Learning • Critical thinking • Problem solving • Application and Analysis	• Demonstration cum lecture method • Guided Discussion • Activity based teaching • Problem solving based learning • Peerteaching • Implementation of 5E's

	vectors. 4. Using a simple pendulum, plot L-T and L-T² graphs. Hence find the effective length of second's pendulum using appropriate graph.	static and kinetic friction and state the laws of friction. • Explain the concept of rolling friction. • Explain centripetal force. • Understand the motion on a curved level road and banked road. Chapter-6_ • Conceptualize work done by a constant force and a variable force. • Explain kinetic energy, potential energy and conservation of mechanical energy. • Obtain work-energy theorem for constant and variable force. • Differentiate between conservative and non-conservative forces. • Explain the term power. • Distinguish between elastic and inelastic collisions (1D and 2D), with examples.		
OCTOBER	Ch 7: System of Particles and Rotational Motion	The students will be able to: • To distinguish between the	• Problem solving • Application and	• Implementation of 5E's • Demonstration cum lecture

	Ch 8: Gravitation PRACTICALS: <i>Section A(contd.)</i> 5. 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 6. To determine radius of curvature of a given spherical surface by a spherometer.	centre of mass and center of gravity of a rigid body. • Solve problems on calculation of centre of mass for a system of particle • Explain momentum conservation and centre of mass motion. • Develop the meaning of torque of rigid bodies and angular momentum. • Conceptualize rotational equilibrium, moment of inertia, radius of gyration. • State law of conservation of angular momentum and its application. Chapter 8:•State the universal law of gravitation. and list properties of gravitational force. • Comprehend acceleration due to gravity (<i>recapitulation only</i>) and its variation with altitude, depth and shape of earth. • Obtain expression for	Analysis • Understanding • Evaluate and inference. • Collaborating Learning • Critical thinking	method • Guided Discussion • Activity based teaching • Problem solving based learning • Peerteaching
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		gravitational potential energy. • Obtain expression for escape velocity and orbital velocity of a satellite. • Differentiate between Geo-stationary & Polar satellites.		
NOVEMBER	Ch 9: Mechanical Properties of Solids Ch 10: Mechanical Properties of Fluids PRACTICALS: <i>Section B Experiments (contn.)</i> 7. To study the relationship between the temperature of a hot body and time by plotting a cooling curve. 8. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a	The students will be able to: • Describe how different module of elasticity correspond to different kinds of stress and strain. • State Hooke's law of Elasticity • Draw the stress strain curve for metallic wire • Comprehend applications of elasticity. Chapter - 10 • Explain how pascal's law is applied in hydraulic lifts and breaks. • Explain pressure due to a fluid column. • Comprehend viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, Reynold's	•Collaborating Learning •Critical thinking •Problem solving • Application and Analysis •Understanding •Evaluate and inference.	• Implementation of 5E's • Demonstration cum lecture method • Guided Discussion • Activity based teaching • Problem solving based learning • Peerteaching

	given spherical body.	Number & critical velocity. • State Bernouli's theorem and comprehend its applications • Conceptualize surface energy and surface tension and angle of contact. • Interpret application of surface tension. • Understand capillary rise and obtain ascent formula.		
DECEMBER	Ch 11: Thermal Properties of Matter Ch 12: Thermodynamics Ch 13: Kinetic Theory Of Gases	The students will be able to: • Understand thermal expansion of solids, liquids and gases (recapitulation only). • Describe anomalous expansion of water. • Develop meaning of terms- specific heat capacity (C_p, C_v), Calorimetry, change of state, latent heat capacity, thermal conductivity. • Mathematically state and obtain Newton's law of cooling. Chapter- 12 • Understand the concept of adiabatic, isothermal, isobaric and isochoric processes • Obtain expression for work done in isothermal and adiabatic	• Critical thinking • Problem solving • Application and Analysis • Understanding • Evaluate and inference. • Collaborating Learning	• Implementation of 5E's • Demonstration cum lecture method • Guided Discussion • Activity based teaching • Problem solving based learning • Peer teaching

		processes. • State second law of thermodynamic • Differentiate reversible and irreversible processes. Chapter-13 • State the kinetic theory of gases – assumptions. • Recognize that pressure in a gas originates from kinetic energy of the molecules. • Establish kinetic interpretation of temperature. • Find the degrees of freedom, C_p and C_v for monoatomic, diatomic and triatomic gases using law of equipartition of energy.		
JANUARY	Ch 14: Oscillations Ch 15: Waves	The students will be able to: • Comprehend simple harmonic motion (S.H.M) and its equation. • Comprehend the concept of phase. • Derive equations of displacement, velocity &	•Critical thinking •Problem solving • Application and Analysis •Understanding •Evaluate and inference.	

		acceleration of a particle executing SHM. • Obtain expressions for kinetic and potential energies of S.H.M. • Relate oscillations of spring and simple pendulum to SHM.	•Collaborating Learning	
	Ch 15: Waves (contd.)	The students will be able to: • Define free, forced and damped oscillations and resonance. Chapter- 15 • State and interpret the expression for the speed of transverse waves on a stretched string and the speed of longitudinal waves in air. • Differentiate between progressive and stationary waves. • Obtain displacement relation for a progressive wave • Comprehend principle of superposition of wave and reflection of waves. • Understand standing waves in strings. • Understand the concept of beats.	•Critical thinking •Problem solving • Application and Analysis •Understanding •Evaluate and inference. •Collaborating Learning	• Implementation of 5E's • Demonstration cum lecture method • Guided Discussion • Activity based teaching • Problem solving based learning • Peerteaching
FEBRUARY - MARCH	REVISION & FINAL EXAM			

UNITS		Marks	Time: 3 hrs. Max Marks. 70
Unit I	Physical World and Measurement	23	
Unit II	Kinematics		
Unit III	Laws of Motion		
Unit IV	Work, Energy and Power	17	
Unit V	Motion of System of Particles and Rigid Body		
Unit VI	Gravitation		
Unit VII	Properties of Bulk Matter	20	
Unit VIII	Thermodynamics		
Unit IX	Behavior of Perfect Gases and Kinetic Theory of Gases		
Unit X	Oscillations and Waves	10	

CHEMISTRY

LEARNING OBJECTIVES

The broad objectives of teaching Chemistry at Senior Secondary Stage are to help the learners:

1. To promote understanding of basic facts and concepts in Chemistry while retaining the excitement of chemistry.
2. To make students capable of studying chemistry in academic and professional courses (such as medicine, engineering, technology) tertiary level.
3. To expose the students to various emerging new areas of chemistry and apprise them with their relevance in their future studies and their application in various spheres of chemical sciences and technology.
4. To equip students to face various changes related to health, nutrition, environment, population, weather, industries and agriculture.
5. To develop problem solving skills in students.
6. To expose the students to different processes used in industries and their technological applications.

TEXT BOOK:

CHEMISTRY Part – I &II : by NCERT

RECOMMENDED BOOKS:

Lab Manual for Chemistry: Pradeep Publication

Organic Chemistry: by Morrison & Boyd

Fundamental Chemistry II – Pradeep Publication

Inorganic Chemistry: by J.D. Lee

MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING METHOD
JULY	Ch 1:Some basic concepts of chemistry Ch 2: Structure of atom.	The students will be able to: (Some Basics Concepts of Chemistry) • explain the importance of chemistry in different spheres of life.	• Application and Analysis	• Guided Discussion • Activity based teaching • Problem solving based learning

	PRACTICALS 1. Basic laboratory techniques: Cutting glass tube and glass rod etc 2. Crystallization of impure sample of alum.	• describe the terms mole and molar mass. • solve numerical problems based on the mass percent of different elements constituting a compound. • formulate empirical formula and molecular formula of a compound from the given experimental data. • solves numerical problems based on stoichiometric calculations.	• Life Skills • Evaluate and inference • Collaborating Learning • Critical thinking • Problem solving	• Peerteaching • Numerical practice
AUGUST	Ch 2: Structure of atom. (contd.)	After the completion of chapter (Structure of atom) the student: • Understands the experiments leading to discovery of sub atomic particles. Explains atomic models explains Dual nature of matter and light. • identifies and explains different regions of Hydrogen spectrum	• Application and Analysis • Understanding • Evaluate and	• Guided Discussion • Activity based teaching • Problem solving based learning • Peer teaching • Numerical practice

		and solves numerical problems. •explains Bohr's model of atom and solves numerical problems • explains de-Broglie's dual behavior of matter and solves numerical problems •explains Heisenberg's uncertainty principle and solves numerical problems •summarises the important features of quantum mechanical model of atom • explains the significance of quantum numbers • sketches the probability density curves and boundary surface diagrams of s, p and d orbitals • explains the rules of electron filling in atoms and writes the electronic configuration of atoms	inference •Collaborating Learning •Critical thinking •Problem solving	
	Ch 3: Classification	After the completion of chapter	• Interpersonal	• Guided Discussion

	of elements Ch 4 : Chemical Bonding and Molecular Structure PRACTICALS 1. Determination of anions of dil. and conc. sulphuric acid group.	(Classification of Elements) the student: •recognises the periodic law and explains the importance of atomic number, electronic configuration and periodic classification. • lists the elements with $Z > 100$ according to IUPAC nomenclature. •recognises s, p, d and f block elements and their characteristics. • identifies the periodic trends in physical and chemical properties of elements.	Skills • Application and Analysis • Understanding • Evaluate and inference • Collaborating Learning • Critical thinking • Problem solving	• Activity based teaching • Problem solving based learning • Peer teaching
SEPTEMBER	Ch 4: Chemical bonding and molecular structure. (contd.)	After the completion of chapter (Chemical bonding and molecular structure) the student: • sketches Lewis structures of simple molecules • explains the formation of ionic bond and covalent bond • explains different bond parameters	• Evaluate and inference • Collaborating Learning	• Guided Discussion • Activity based teaching • Problem solving based learning • Peer teaching

	PRACTICALS: Determination of anions of dil. and conc. sulphuric acid group.(contd)	•sketches the resonance structures of simple molecular species •identifies the polarity of covalent bonds and predicts the polar nature of some simple molecules •describes VSEPR theory and predicts the geometry of simple molecules • explains the valence bond approach for the formation of covalent bonds • predicts the directional properties of various covalent bonds •explains the different types of hybridization involving s, p and d orbitals and sketches shapes of simple covalent molecules •describes the molecular orbital theory of homonuclear diatomic molecules • explains the concept of hydrogen bonding	•Critical thinking •Problem solving •Artistic Skills	
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OCTOBER	Ch 6: Thermodynamics.	After the completion of chapter (Thermodynamics) the student: • explains the terms: system and surroundings; •	• Application and Analysis	• Demonstration cum lecture • Activity based teaching • Problem solving based learning
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		• discriminates between closed, open and isolated systems; • explains internal energy, work and heat; • explains first law of thermodynamics and express it mathematically; • calculate energy changes as work and heat contributions in chemical systems; • explains state functions: U, H; • correlates ΔU and ΔH; • measures experimentally ΔU and ΔH; • defines standard states for ΔH; • calculates enthalpy changes for various types of reactions; • state and apply Hess's Law of constant heat of summation; • differentiate between extensive and intensive properties; • defines spontaneous and non spontaneous processes;	• Understanding • Evaluate and inference • Collaborating Learning • Critical thinking • Problem solving	• Peerteaching • Numerical practice
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		•explains entropy as athermodynamic state function and apply it for spontaneity; •explains Gibb's energy change(ΔG); • establish relationship between ΔG and spontaneity, ΔG and equilibrium constant;		
	Ch 8:Redox Reactions PRACTICALS: Determination of anions of dil. and conc. sulphuric acid group.(contd)	After the completion of chapter (Redox Reactions) the student: • identifies oxidation and reduction reactions based on classical concept •defines the terms, oxidation, reduction, oxidizing agent and reducing agent. • explains mechanism of redox reaction using electron transfer process •recognizes oxidation number and solve problems to find out oxidation number. • identifies oxidant and reductant	• Applicationand Analysis • Understanding •Evaluate and inference •Collaborating Learning •Critical thinking	• Guided Discussion • Activity basedteaching • Problem solving based learning • Peerteaching

		using oxidation number. • classifies redox reactions into combination reactions, decomposition reactions, displacement reactions, and disproportionation reactions • recognize balancing of redox reactions using oxidation number method and half reaction method.	• Problem solving	
NOVEMBER	Ch 7: Equilibrium PRACTICALS: Determination of cations of groups zero, one and two in a given salt.	After the completion of chapter (Equilibrium) the student: • identifies the dynamic nature of equilibrium in physical and chemical processes. • states the law of equilibrium and writes the expression for equilibrium constant. • establishes relationship between K_p and K_c. • lists the applications of equilibrium constant. • explains various factors that affect	• Application and Analysis • Understanding • Evaluate and inference • Collaborating Learning	• Guided Discussion • Activity based teaching • Problem solving based learning • Peerteaching • Numerical practice

		equilibrium state of a reaction. •classifies substance as acids and bases based on Arrhenius concept, Bronsted-Lowry concept and Lewis concept. •describes the equilibrium involved in the ionisation of water and that of solutions of acids and bases. •describes the pH scale for representing hydrogenion concentration. • explains the dependence of degree of ionizationon concentration of electrolyte and that of common ion effect in the degree of ionisation. • explains the hydrolysis of different types of salts. • identifies the use of buffer solutions. •calculates solubility product constant and the solubility of salts.	•Critical thinking •Problem solving	
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DECEMBER	Ch 12: General Organic chemistry Ch 13 : Hydrocarbons PRACTICALS: 1. Determination of cations of groups 3 and 4.	After the completion of chapter (General Organic Chemistry) the student: • recognizes reason for the tetra valency of carbon atom. • identifies shapes of organic molecules on the basis of sigma bond , double bond and triple bond. • writes the structure of organic molecules in various ways. • classifies the organic compounds on the basis of its structure. • names the compound according to IUPAC system of nomenclature and also derives the structures from the given name. • identifies the concepts of organic reaction mechanism. • explains the influence of electronic displacements on structure and reactivity of organic compounds. • recognizes the type of organic	• Application and Analysis • Understanding • Evaluate and inference • Collaborating Learning • Critical thinking • Problem solving	• Nomenclature practice • Activity based teaching • Problem solving based learning • Peerteaching • Demonstration cum lecture
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		reactions on the basis of reaction mechanism.		
JANUARY	Ch 13: Hydrocarbons.(contd.) PRACTICALS: 1. Determination of cations of groups 5 and 6. 2. Volumetric analysis.	After the completion of chapter (Hydrocarbons) the student: - names hydrocarbons according to IUPAC system of nomenclature. - recognizes and writes structures of isomers of alkanes, alkenes, alkynes and aromatic hydrocarbons. - identifies alkenes showing geometrical isomerism - describes various methods of preparation of hydrocarbons. - distinguishes between alkanes, alkenes, alkynes and aromatic hydrocarbons on the basis of physical properties. - examines the chemical properties of alkanes, alkenes, alkynes and aromatic hydrocarbons. - sketches and differentiates between	- Application and Analysis - Environment Awareness - Evaluate and inference - Collaborating Learning - Critical thinking - Problem solving	- Demonstration cum lecture - Activity based teaching - Problem solving based learning - Peer teaching - Nomenclature practice

		various conformations of ethane and their difference in energy.. • predicts the formation of the addition products of unsymmetrical alkenes and alkynes on the basis of electrophilic addition mechanism. • predicts the formation of addition products of unsymmetrical alkenes with HBr free radical addition mechanism. • appreciates the role of hydrocarbons as source of energy and for other industrial applications. • describes the structure of benzene, explains aromaticity and mechanism of electrophilic substitution reactions of benzene. • predicts the directive influence of substituent in mono		
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		substituted benzene ring. •appreciates the adverse effect of carcinogenicity and toxicity.		
FEBRUARY - MARCH		REVISION & FINAL EXAM		

UNITS			
1	Some Basic Concepts of Chemistry	7	Time: 3 hrs. Max Marks. 70
2	Structure of Atom	9	
3	Classification of Elements and Periodicity in Properties	6	
4	Chemical Bonding and Molecular Structure	7	

5	Chemical Thermodynamics	9
6	Equilibrium	7
7	Redox Reactions	4
8	Organic Chemistry : Basic Principles and techniques	11
9	Hydrocarbons	10

ANNUAL PEDAGOGY

CLASS XI Economics

Text Book :NCERT.

Recommended Books:

Sandeep Garg

T. R. Jain

MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING METHOD
JULY	Unit 1 Introduction What is Economics? Meaning, scope, functions and importance of statistics in Economics Introduction Meaning of microeconomics and macroeconomics; positive and normative economics What is an economy? Central problems of an economy: what, how and for whom to produce; concepts of production possibility frontier and	To enable the students to understand: – ☐ Functions and application of statistical tools. ☐ Importance of statistics for various sections of society Limitations of statistics and causes of distrust ☐	Evaluate, analyze, recall, think critically	Guided Discussion Problem solving based learning Peer teaching Self-assessment

	opportunity cost.			
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		The Concept of PPC Characteristics, Shifts		
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		and Applications of PPC □ Concept of Opportunity Cost and its application □ Understand the concept of Opportunity cost and Marginal opportunity cost		
AUGUST	Consumer's Equilibrium and Demand Consumer's equilibrium – meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis. Indifference curve analysis of consumer's equilibrium- the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of	To enable the students to understand – • The nature and methods of collection of data and its application in real life • Understand the conditions of consumer equilibrium • Nature of primary data & secondary data • Understand the difference between Random and Non random sampling Nature	Evaluate, Recall	Guided Discussion Problem solving based learning Peer teaching Case studies Self-assessment

	consumer's equilibrium. Collection, Organisation and Presentation of data Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation. - PROJECTWORK	Cocept of sampling Errors.		
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September	Organisation of Data: Meaning and types of variables; Frequency Distribution. Presentation of Data: Tabular Presentation and Diagrammatic Presentation of Data: (i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series graph). Consumer's Equilibrium and Demand Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve; price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method and total expenditure method.	To enable the students to understand – •Consumer Equilibrium conditions in case of one good & two good ☐ Understanding the significance of indifference curves ☐ Understanding the reason behind downward sloping budget line ☐ The role of budget line and its application in everyday life ☐ Understand the usage concept of demand and Elasticity of Demand How to present data. usage of exclusive and inclusive series ☐ ☐	Conceptualization Analytical thinking Remembering team spirit	Written assignments Mapping Learning with Acronyms Case studies Higher Order Thinking Skills
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October	Producer Behaviour and Supply Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product. Returns to a Factor Cost: Short run costs - total cost, total fixed cost, total variable cost; Average cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationships. Revenue - total, average and marginal revenue - meaning and their relationship. Producer's equilibrium-meaning and its conditions in terms of marginal revenue marginal cost. Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage-change method. Statistical Tools and Interpretation For all the numerical problems and solutions, the appropriate	To enable the students to – ☐ Relevance of various types of diagrams and graphs ☐ Understand the meaning & definition of various concepts and key terms in diagrammatic and graphical presentation ☐ Know the meaning of production function ☐ Differentiate between long run and short run ☐	Analyze Organize Participate Distinguish Memorize	Guided Discussion Problem solving based learning Peerteaching Case studies mapping Self-assessment Class Module
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	economic interpretation may be attempted. This means, the students need to solve the problems and provide interpretation for the results derived. Measures of Central Tendency-Arithmetic mean, median and mode.			
October		To enable the students to understand – The phases of law of variable proportion with the help of TP & MP Compiling the situation where law of variable proportion is applied in everyday life. Application of measures of Central Tendency in everyday life. Application of Averages in industry and business	Logical thinking Observational skills Recognize structure Evaluation	Group Discussion Current Examples of CSR Peer Teaching Case Studies Class module

NOVEMBER	Forms of Market and Price Determination under Perfect Competition with simple applications. 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.	To enable the students to – *Articles to be collected for presentation in class on different forms of markets. □ Take examples of different markets and derive the characters. Know the concepts of Changes in equilibrium price and quantity due to changes in factors affecting demand and supply.	Evaluate, analyze, recall, extrapolate, think critically	Guided Discussion Problem solving based learning Peerteaching Case studies Current affairs Case studies mapping Self-assessment
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		Chain reaction under different situations of dynamics of equilibrium Application of price ceiling and price flooring by the Government		
DECEMBER	Correlation – meaning and properties, scatter diagram; Measures of correlation - Karl Pearson's method, Spearman's rank correlation.	After going through this unit the learner would be able to: Understand the nature of relationship between two individual variables.	Solve problems to new solutions by applying acquired knowledge Analyzing and Evaluating	Problem solving based learning Peerteaching Case studies mapping Self-assessment
JANUARY	Introduction to Index Numbers - meaning, types - WPI, consumer price index and index of industrial production, uses of index numbers; Inflation and index numbers. REVISION OF ENTIRE SYLLABUS Practice of Full syllabus through sample paper	After going through this unit the learner would be able to: ☐ The role of index numbers in evaluating the changing relationship between variables w.r.t time, geographical location and other characteristics. ☐ The relationship between index numbers and inflation	Remembering Understanding Evaluating	Problem solving based learning Case studies mapping Self-assessment
February and March	Revision and Final Examination			

UNITS			
Part A	Statistics for Economics		Time: 3 hrs. Max Marks. 80
	Introduction	15	
	Collection, Organisation and Presentation of Data		
	Statistical Tools and Interpretation	25	
Part B	Introductory Microeconomics		
	Introduction	4	
	Consumer's Equilibrium and Demand	15	
	Producer Behaviour and Supply	15	
	Forms of Market and Price Determination under perfect competition with simple applications	6	
		80	

BUSINESS STUDIES

MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING METHOD
JULY	Unit 1 Nature and purpose of business Concept and characteristics of business • Business, Profession and Employment: • Objectives of business- Economic, social • Role of profit in business • Classification of business activities: Industry and Commerce Business Risks Meaning, nature and causes	To enable the students to – • Know the history of commerce in India • understand the concept and characteristics of business • understand the role of Commerce, trade and auxiliaries to trade explain the concept	Evaluate, analyze, recall, think critically	Guided Discussion Problem solving based learning Peerteaching Self-assessment
AUGUST	Unit 2: Forms of Business Organization • Sole Proprietorship : meaning, features, merits and limitations • Partnership: meaning, features types, merits and limitations Joint Hindu Family Business: Meaning and its	To enable the students to – • list the different forms of business organization • distinguish between various forms of business organizations	Evaluate, Recall	Guided Discussion Problem solving based learning Peerteaching Case studies Self-assessment

	features PROJECT WORK	Sole proprietorship, partnership and Hindu undivided family business		
AUGUST	Chapter 2 Forms of business organization (contd.) ☐ Cooperative Societies- Concept, features, importance and limitations ☐ Types of Cooperative Societies ☐ Joint stock company Features, merits and demerits ☐ Formation of Company Steps, Documents and Chapter 3 Private, Public and Global Enterprises ☐ Departmental Undertaking, Public Corporation and Government Company : features, merits, demerits and suitability MNCs- Concept	To enable the students to – • list the different forms of business organization * Documents used in formation of company * Types of Companies : Private and public Companies ^ Distinguish between various forms of PSUs Difference between Private sector and Public Sector Enterprises	Conceptualization Analytical thinking Remembering team spirit	Written assignments Mapping Learning with Acronyms Case studies Higher Order Thinking Skills

SEPTEMBER	Contd. Chapter 4 Business Services ☐ Banking: its services, types of accounts, e-banking, digital methods of payments Insurance: principles of insurance, difference between life, fire and marine insurance Postal and telecom services	To enable the students to – • explain the nature and types of business services * Types of Insurance and principles of insurance	Analyze Organize Participate Distinguish Memorize	Guided Discussion Problem solving based learning Peerteaching Case studies mapping Self-assessment Class Module
SEPTEMBER	Unit 5 :Emerging Modes of business ☐ Concept, features and importance of ☐ E-business Unit 6: Social Responsibility of Business	To enable the students to – • describe the scope of e-Business • describe the responsibility of business towards owners, employees, consumers, govt. , community and explain the role of business in environmental protection	Logical thinking Observational skills Recognize structure Evaluation	Group Discussion Current Examples of CSR Peer Teaching Case Studies Class module
OCTOBER	Unit 7 Sources of Business Finance Owners and borrowed funds Equity Shares, Preference Shares, Retained earning, ADR, GDR, IDR. Debentures. Trade Credit,	Students would be able to - • discuss the nature and significance of business	Evaluate, analyze, recall, extrapolate, think critically	Guided Discussion Problem solving based learning Peerteaching Self-assessment

	Public Deposits, Loans from Commercial banks and financial Institutions	finance • distinguish between owners' funds and borrowed funds • appreciate the features of international sources of finance		
NOVEMBER	Chapter-8 Small Business and Entrepreneurship Development ☐ Concept, characteristics and need Process of Entrepreneurship Development: start up India scheme, ways to fund start up ☐ IPR ☐ Role of small business in India ☐ Government schemes and agencies for small scale industries	To enable the students to – define MSMED Act, 2006 *steps in Entrepreneurship Development *Appreciate the various schemes of Government for development of SSIs *understanding the meaning of Small business according to MSMED Act 2006	Evaluate, analyze, recall, extrapolate, think critically	Guided Discussion Problem solving based learning Peerteaching Case studies Current affairs Case studies mapping Self-assessment
DECEMBER	Chapter-9 Internal Trade ☐ Meaning and types ☐ Services rendered by wholesaler and retailer ☐ Types of Retailers ☐ GST- concept	After going through this unit the learner would be able to: *State the meaning and types of internal trade *Appreciate the services of intermediaries	Solve problems to new solutions by applying acquired knowledge Analyzing and	Problem solving based learning Peerteaching Case studies mapping Self-assessment

			Evaluating	
JANUARY	Chapter 10 International Business □ Concept and Benefits Import and Export Procedure	After going through this unit the learner would be able to: *describe the scope of international trade to the nation and business firms	Remembering Understanding Evaluating	Problem solving based learning Case studies mapping Self-assessment
FEBRUARY- MARCH	REVISION & FINAL EXAMINATION			

TEXT BOOK - NCERT
RECOMMENDED BOOK
SUBHASH DEY

S.NO	UNIT	MARKS
1	EVOLUTION AND FUNDAMENTALS OF BUSINESS	16
2.	FORMS OF BUSINESS ORGANIZATION	
3.	PRIVATE, PUBLIC AND GLOBAL ENTERPRISES	14
4.	BUSINESS SERVICES	
5.	EMERGING MODES OF BUSINESS	10
6.	SOCIAL RESPONSIBILITY OF BUSINESS AND BUSINESS ETHICS	
7.	SOURCES OF BUSINESS FINANCE	20
8	SMALL BUSINESS AND ENTERPRISES	
9.	INTERNAL TRADE	20
10.	INTERNATIONAL TRADE	
11.	PROJECT WORK	20
	TOTAL	100

PAINTING				
MONTH	COURSE CONTENT	LEARNING OUTCOME	SKIL	TEACHING METHOD
JULY	Unit 1 Pre-Historic Rock-Paintings Introduction 1) Period and Location 2) Study and appreciation of following pre-historic paintings: i. Wizard's Dance, Bhimbethaka B. Introduction 1) Period and Location. 2) Extension: In about 1500 miles. i. Harappa & Mohenjo-daro ii. Ropar, Lothal, Rangpur, Alamgirpur, Kali Bangan, Banawali and Dholavira (in India) (Practical) a) Still Life- Object Drawing b) Composition-based on daily life	To enable the students to • encounter with history of human's civilization' growth through Art and culture. • the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.	Discover their potential for creativity, self--expression and visual awareness through painting. • Feel confident with the chosen medium as a means of communicating and generating ideas. • Develop observation, recording, manipulation, and applications skills. • Experiment with a range of media and techniques. • Relate their work to other artists work and understand the historical context of this work. • Understand the basic principles of colour. • Develop critical awareness.	Guided Discussion Problem solving based learning Peer teaching Self-assessment
AUGUST	Study and appreciation of following: Sculptures and Terra cottas: i. Dancing girl (Mohenjo-daro) Bronze, ii. Male Torso (Harappa) iii. Mother Goddess (Mohenjo-daro) terracotta, Study and appreciation of following Seal: i. Bull (Mohenjo-daro)	To enable the students to • encounter with history of human's civilization' growth through Art and culture. • the students would be acquainted with brief	Discover their potential for creativity, self--expression and visual awareness through painting. • Feel confident with the chosen medium as a	Guided Discussion Problem solving based learning Peer teaching Self-assessment

	Decoration on earthen wares: Painted earthen-ware (Jar) Mohenjo-daro (Practical) a) Still Life- Object Drawing b) Composition-based on daily life	glimpses of the development of Indian visual art as are required for concept formation.	means of communicating and generating ideas. • Develop observation, recording, manipulation, and applications skills. • Experiment with a range of media and techniques. • Relate their work to other artists work and understand the historical context of this work. • Understand the basic principles of colour. • Develop critical awareness.	
AUGUST	Unit 2 Buddhist, Jain and Hindu Art (3rd century B.C. to 8th century A.D.) 1.General Introduction to Art during Mauryan, Shunga, Kushana (Gandhara and Mathura styles) and Gupta period: 2.Study and appreciation of following Sculptures: i. Lion Capital from Sarnath (Mauryan period) ii. Chauri Bearer from Didar Ganj (Yakshi) (Mauryan period) (Practical) a) Still-Life- Object Drawing b) Composition-based on daily life	To enable the students to • encounter with history of human's civilization' growth through Art and culture. • the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.	Discover their potential for creativity, self--expression, and visual awareness through painting. • Feel confident with the chosen medium as a means of communicating and generating ideas. • Develop observation, recording, manipulation, and applications skills. • Experiment with a range of media and techniques. • Relate their work to other artists work and understand the historical context of this work.	Guided Discussion Problem solving based learning Peer teaching Self-assessment

			• Understand the basic principles of colour. • Develop critical awareness.	
SEPTEMBER	iii. Seated Buddha from Katra Mound, Mathura-(Kushan Period- Mathura Style) iv. Jain Tirathankara (Gupta period) Introduction to Ajanta Location Period, No of caves, Chaitya and Vihara, paintings and sculptures, subject matter and technique etc. (Practical) a) Still-Life- Object Drawing b) Composition-based on daily life	To enable the students to • encounter with history of human's civilization' growth through Art and culture. • the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.	Discover their potential for creativity, self--expression, and visual awareness through painting. • Feel confident with the chosen medium as a means of communicating and generating ideas. • Develop observation, recording, manipulation, and applications skills. • Experiment with a range of media and techniques. • Relate their work to other artists work and understand the historical context of this work. • Understand the basic principles of colour. • Develop critical awareness.	Guided Discussion Problem solving based learning Peer teaching Self-assessment
SEPTEMBER	Unit 3: (a) Temple Sculpture, Bronzes and artistic aspects of Indo-Islamic Architecture (A) Artistic aspects of Indian Temple sculpture (6th Century A.D. to 13th Century A.D.) 1) Introduction to Temple Sculpture	To enable the students to • encounter with history of human's civilization' growth through Art and culture. • the students would be acquainted with brief	Discover their potential for creativity, self--expression, and visual awareness through painting. • Feel confident with the chosen medium as a	Guided Discussion Problem solving based learning Peer teaching Self-assessment

	(6th Century A.D. to 13th Century A.D.) 2) Study and appreciation of following Temple-Sculptures: i.Descent of Ganga (Pallava period, ii. Trimuti (Elephanta, Maharashtra) iii. Lakshmi Narayana (Kandariya Mahadev Temple) (Practical) a) Still-Life- Object Drawing b) Composition-based on daily life	glimpses of the development of Indian visual art as are required for concept formation.	means of communicating and generating ideas. • Develop observation, recording, manipulation, and applications kills. • Experiment with a range of media and techniques. • Relate their work to other artists work and understand the historical context of this work. • Understand the basic principles of colour. • Develop critical awareness.	
OCTOBER	iv. Cymbal Player, Sun Temple v. Mother and Child (Vimal-Shah Temple, Solanki Dynasty, Bronzes: 1. Introduction to Indian Bronzes. 2. Method of casting (solid and hollow) 3. Study and appreciation of following South Indian Bronze: i. Nataraj (Chola period Thanjavur Distt.,Tamil Nadu) (C) Artistic aspects of the indo-Islamic architecture: 1. Introduction 2. Study and appreciation of following architecture: i. Qutub Minar, Delhi ii. Gol Gumbad of Bijapur (Practical)	To enable the students to • encounter with history of human's civilization' growth through Art and culture. • the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.	Discover their potential for creativity, self--expression, and visual awareness through painting. • Feel confident with the chosen medium as a means of communicating and generating ideas. • Develop observation, recording, manipulation, and applications kills. • Experiment with a range of media and techniques. • Relate their work to other artists work and understand the historical context of this work.	Guided Discussion Problem solving based learning Peer teaching Self-assessment

	a) Still-Life- Object Drawing b) Composition-based on daily life		• Understand the basic principles of colour. • Develop critical awareness.	
NOVEMBER	Revision: Unit 1.2.3 (Practical) a) Still Life-Object Drawing b) Composition-based on daily life	To enable the students to • encounter with history of human's civilization' growth through Art and culture. • the students would be acquainted with brief glimpses of the development of Indian visual art as are required for concept formation.	Discover their potential for creativity, self--expression and visual awareness through painting. • Feel confident with the chosen medium as a means of communicating and generating ideas. • Develop observation, recording, manipulation, and applications kills. • Experiment with a range of media and techniques. • Relate their work to other artists work and understand the historical context of this work. • Understand the basic principles of colour. • Develop critical awareness.	Guided Discussion Problem solving based learning Peer teaching Self-assessment
DECEMBER-MARCH	REVISION & FINAL EXAMINATION			

Book: History of Art (Full Marks Publication), Class XI by Devender Kumari

• Portfolio: Half Imperial File consist of 20 still life drawing and 20 Composition with water/poster colour

PORTFOLIO ASSESSMENT FOR FINE ARTS MAY BE DONE ON THE BASIS OF FOLLOWING CRITERIA

Creativity, Innovation, Technique, Experimentation, Progressive Work, Skills,

Logical organization and collection of creations.

Critical evaluation and aesthetic judgment applied

PSYCHOLOGY

MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING METHOD
JULY	Chapter-1, What is Psychology?	To develop appreciation about human mind and behaviour in the context of learners' immediate society and environment. To develop in learners an appreciation of the nature of psychological knowledge and its application to various aspects of life. To enable learners to become perceptive, socially aware and self-reflective. To facilitate students' quest for personal growth and effectiveness, and to enable them to become responsive and responsible citizens.	understand the nature and role of psychology in understanding mind and behavior • know the different fields of psychology, its relationship with other disciplines, and professions, and appreciate the value of psychology in daily life to help you understand yourself and others better Critical thinking	Guided Discussion Role Play Peerteaching Self-assessment
AUGUST	Chapter-2 Methods of Enquiry in Psychology	Explain the goals and nature of psychological enquiry, Understand different types of data used by psychologists. Describe some important methods of psychological enquiry. understand the methods of analysing data, and Learn about the limitations of psychological enquiry and ethical considerations.	Understanding goals of psychological enquiry. Nature of information or data collected in psychological studies, the diverse range of methodological devices available for the study of psychology. Understanding merits and demerits of each method.	Lecture method Problem solving based learning Peer Teaching
SEPTEMBER	Chapter 3 Bases of Behaviour	Understand the evolutionary nature of human behavior.	Develop an understanding of how brain, environment and behaviour	Guided Discussion

		Relate the functions of nervous system and endocrine system to behavior. Explain the role of genetic factors in determining behavior. Understand the role of culture in shaping human behavior. Describe the processes of enculturation, socialization, and acculturation.	interact to generate unique forms of behaviour. Relate biological and socio-cultural factors in understanding human behavior.	Problem solving based learning Peer Teaching Self-assessment
OCTOBER	Chapter 4 Human Development	Describe the meaning and process of development. Explain the influence of heredity, environment and context on human development. Identify the stages of development and describe the major characteristics of infancy, childhood, adolescence, adulthood and old age.	Reflect on course of development and related experiences. Be able to differentiate between development, evolution and maturity.	Guided Discussion Problem solving based learning Peer Teaching
NOVEMBER	Chapter 5 Sensory, Attentional and Perceptual Processes	Understand the nature of sensory processes. Explain the processes and types of attention. Analyse the problems of form and space perception. Examine the role of socio-cultural factors in perception	Reflect on sensory, attentional and perceptual processes in everyday life. Be able to differentiate between monocular cues and binocular cues.	Guided Discussion Problem solving based learning Peer Teaching
DECEMBER	Chapter 6 Learning	Describe the nature of learning. Explain different forms or types of learning and the procedures used in such types of learning. Understand various psychological processes that occur during learning.	Explain the determinants of learning Understand applications of learning principles in everyday life- classical conditioning, operant conditioning and observational learning.	Guided Discussion Problem solving based learning Peer Teaching Self-assessment

	Chapter 7 Human Memory	Understand the nature of memory. Distinguish between different types of memory. Explain how the contents of long-term memory are represented and organized.	Understand the strategies for improving memory- Mnemonics. Apply study techniques for better retention- PQRSST techniques. Understand the nature and causes of forgetting.	Guided Discussion, Problem solving based learning, Peer Teaching and Self-assessment
JANUARY	Chapter 8 Thinking	Describe the nature of thinking and reasoning. Understand the relationship between language and thought. Describe the process of language development and its use	Demonstrate an understanding of some cognitive processes involved in problem solving and decision-making. Understand the nature and process of creative thinking and learn ways of enhancing it.	Guided Discussion Problem solving based learning Peer Teaching Self-assessment
	Chapter 9 Motivation and Emotion	Understand the nature of human motivation. Describe the nature of some important motives. Describe the nature of emotional expression. Understand the relationship between culture and emotion.	Be able to identify and manage negative emotions. Ability to regulate examination anxiety.	Guided Discussion Problem solving based learning Peer Teaching Self-assessment Inductive Method

February & March	Revision and Final Examination
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PHYSICAL EDUCATION

Book: Big Think
Health & Physical education
Theory Max. Marks 70

COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING METHOD
Unit I Changing Trends & Career in Physical Education	1. Concept, Aims & Objectives of Physical Education 2. Development of Physical Education in India – Post Independence 3. Changing Trends in Sports- playing surface, wearable gear and sports equipment, technological advancements 4. Career options in Physical Education 5. Khelo-India Program and Fit – India Program	To make students aware about various career options available in the field of physical education and sports.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
Unit II Olympism Value Education	1. Olympism – Concept and Olympics Values (Excellence, Friendship & Respect) 2. Olympic Value Education – Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind 3. Ancient and Modern Olympics 4. Olympics - Symbols, Motto, Flag, Oath, and Anthem	Students will be able to learn about Olympics and National awards in field of sports.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment

	5. Olympic Movement Structure - IOC, NOC,IFS, Other members		
Unit III Yoga	1. Meaning and importance of Yoga 2. Introduction toAstanga Yoga 3. Yogic Kriyas (ShatKarma) 4. Pranayama and itstypes. 5. Active Lifestyle andstress management through Yoga	To make students aware about importance of yoga	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment • practical •

Unit IV Physical Education & Sports for CWSN (Children With Special Needs- Divyang)	1. Concept of Disability and Disorder 2. Types of Disability, its causes & nature (Intellectual disability, Physical disability). 3. Disability Etiquette Aim and objectives of Adaptive Physical Education. 4. Role of various professionals for children with special needs (Counselor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist, and Special Educator)	To know about various organizations working in the field of adapted physical education	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment •
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Unit V Physical Fitness, Health , Wellness & Lifestyle	1. Meaning & importance of Wellness, Health, and Physical Fitness. 2. Components/Dimensions of Wellness, Health, and Physical Fitness 3. Traditional Sports & Regional Games for promoting wellness 4. Leadership through Physical Activity and Sports 5. Introduction to First Aid – PRICE	Students will be able to bring about change in their lifestyle.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
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Unit VI Test, Measurement & Evaluation	1. Define Test, Measurements and Evaluation. 2. Importance of Test, Measurements and Evaluation in Sports. 3. Calculation of BMI, Waist – Hip Ratio, Skin fold measurement (3-site) 4. Somato Types (Endomorphy, Mesomorphy & Ectomorphy) 5. Measurements of health-related fitness	Students will know their performance.	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
Unit VIII Fundamentals Of Kinesiology And Biomechanics in Sports	1. Definition and Importance of Kinesiology and Biomechanics in Sports. 2. Principles of Biomechanics	Students will be able to bring about change in their lifestyle	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment

	3. Kinetics and Kinematics in Sports 4. Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation 5. Axis and Planes – Concept and its application in body movements		
Unit IX Psychology & Sports	1. Definition & Importance of Psychology in Physical Education & Sports; 2. Developmental Characteristics at Different Stages of Development; 3. Adolescent Problems & their Management; 4. Team Cohesion and Sports; 5. Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness	Students will be able to understand developmental characteristics of different growth	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment

Unit X Training and Doping in Sports	1. Concept and Principles of Sports Training 2. Training Load: Over Load, Adaptation, and Recovery 3. Warming-up & Limbering Down – Types, Method & Importance 4. Concept of Skill, Technique, Tactics & Strategies 5. Concept of Doping and its disadvantages.	To make students aware about doping in sports and their effect on performance	• Guided Discussion • Problem solving based learning • Peer Teaching • Self-assessment
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Practical Max. Marks 30

01. Physical Fitness Test -
02. Proficiency in Games and Sports (Skill of any one Game of choice from the given list*)
03. Yogic Practices -
04. Record File
05. Viva Voce (Health/ Games & Sports/ Yoga)

ACCOUNTANCY

Month	Course Content	Learning Outcome	Skill	Teaching method
JULY	Unit 1: Theoretical Framework *Introduction, Basic Accounting Terms: Business Transaction, account, capital, drawings, liability (Noncurrent and current); Asset (Non-current; tangible and intangible assets and current assets). Receipts(capital and revenue), expenditure, expense, income, profits, gains and losses, purchases, purchase returns, sales, sales returns, stock, trade receivables, trade payables, goods, cost, vouchers, discount- trade and cash *Introduction to Accounting - Objectives, advantages and limitations, types of accounting information; Users of accounting information *Theory Base of Accounting- Fundamental Accounting Assumptions, Accounting Principles. *Bases of Accounting, Accounting Standards and IFRS – Concept and objectives GST :Characteristic and Objectives	To enable the students to – - understand the meaning, characteristics and objectives of Accounting - understand basic accounting terms - understand meaning and nature of accounting principles and IFRS - understand Bases of Accounting- Cash basis and Accrual basis	Class Interaction: Group Discussion- Usage of Accounting and Accountancy in everyday life. Practice Assignment : Classification of items into different accounting heads Theory Base of Accounting- concepts, Principles & Assumptions. Smart Board: Ch- Theory Base of Accounting – Basis of Accounting (Video presentation)	<u>Teaching Methods:</u> - Guided Discussion - Problem solving based learning - Peer teaching - Self-assessment - Numerical practice Smart Class Presentation

AUG	Unit 2: Accounting Process - Accounting Equation: Analysis of transactions using accounting equation (cont.) - Accounting Equation: Analysis of transactions using accounting equation - Origin of transactions: Source documents (invoice, cash memo, pay in slip, cheque), preparation of vouchers- cash and non-cash - Rules of Debit and Credit: for assets, liabilities, capital, revenue and expenses	To enable the students to – - understand the rules of debit and credit in business transactions - analyse the effect of business transactions on Accounting Equation - explain the source documents of Accounting Learning Outcome Students would be able to – - apply the rules of debit and credit in business transactions - show business transactions in the form of Accounting Equation - appreciate the purpose of source documents of accounts	Practice Assignment : Accounting Equation – Practical Problems (Textbook) Source Documents & Vouchers Class test : Accounting Equation + Rules of Debit and Credit	<u>Teaching Methods:</u> Source Documents & Vouchers – Lecture Note: Recording of Business Transactions.
SEPTEMBER	Unit 2: Accounting Process Books of Original Entry: Books of Original Entry: recording-Journal	To enable the students to – Understand format	Practice Assignment : Journal Entries : Ledger :	<u>Teaching Methods:</u> Smart Board : Cash Book : Single and Double Column Cash Book

	- Books of Original Entry: recording-Journal - Books of Original Entry: recording-Journal - Ledger- Format, posting from Journal, balancing of accounts - Trial Balance: objectives and preparation (balance method only) - Cash Book: Simple Cash book, double column cash book and its ledger posting	of Ledger and understand meaning and format of Journal - Explain meaning and objectives of preparing a Trial Balance. - Understand the different types of cashbook - Post journal entries to Ledger. - Record entries in Journal - Prepare a Trial Balance.	Comprehensive Question (Journal, Ledger, Trial Balance) Class Test: Journal, Ledger and trial Balance.	
OCTOBER	Unit 2: Accounting Process Cash Book: Simple cash book, double column cash book and its ledger posting - Cash Book : Ledger Posting - Petty cashbook - Other Subsidiary Books- Purchases Returns Book, Sales	To enable the students to – - Prepare different types of cashbook - Understand the preparation of subsidiary books. - Understand causes of differences in	Textual Illustrations- Bank Reconciliation statement: Reasons for difference between Cash book and Pass	<u>Teaching Methods:</u> Smart Board :Ch- Subsidiary Book- Lecture note on Purchase, Sale , Purchase Return and Sale Return

	Returns Book, and Journal Proper • Other Subsidiary Books- Purchases Returns Book, Sales Returns Book, and Journal Proper • Bank Reconciliation Statement: preparation, corrected cash book balance	Cash book and Pass book balance. Students would be able to • Prepare other subsidiary books. • prepare Bank Reconciliation Statement	Book • <i>Practice Assignment-</i> Bank Reconciliation Statement: Practical Problems (Text book)	
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NOVEMBER	Unit 2: Accounting Process • Depreciation Provisions and Reserves • Depreciation- Methods of computation of depreciation: Straight Line Method (charging to asset account) • Depreciation- Methods of computation of depreciation: Written Down Value Method	To enable the students to- • Understand Methods of providing Depreciation. • Understand Methods of Recording Depreciation. Students would be able to understand the various methods of recording depreciation • Understand the Accounting Treatment Of Provision For	Prepare Asset Accounts to record depreciation by using different methods of calculating depreciation	Format of various ledgers Asset account ,Depreciation account and Provision of depreciation account Peer group learning
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		Depreciation Understand the concept of provisions and reserves and types of reserves		
DECEMBER	Unit 2: Accounting Process Rectification of Errors- types: errors of omission, commission, principal and compensating; their effect on trial balance. - Errors- Detection and rectification of errors ; preparation of Suspense A/c - Errors- Detection and rectification of errors;	- Understand classification of Errors- errors of omission, commission, principal and compensating - Rectify errors by rectifying journal entries Understand the need to prepare suspense account	Rectification of Errors – Practical Problems (Textbook)	Rectification of errors - With suspense account - Without suspense account

	preparation of Suspense A/c Unit 3: Financial statement of sole proprietorship • (without adjustment) Preparation of Trading, Profit & Loss Account AND Balance Sheet • (with adjustment) Adjustments in preparation of financial statements: Closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, Staff welfare, Interest on Capital • Preparation of Trading and Profit and Loss Account and Balance Sheet of sole proprietorship Adjustments in preparation of financial statements: bad debts, provision for doubtful debts, provision for discount on debtor	To enable the students to — • prepare financial statements with adjustments • understand meaning and objectives of financial statements • identify capital and revenue expenditure, capital and revenue receipts prepare Financial Statements of sole	Practice Assignment : Incomplete Records • Practical Problems (Textbook)	Case studies Preparation of FINAL ACCOUNTS -Without adjustment -With adjustment
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JAN-MARCH	Preparation of Trading and Profit and Loss Account and Balance Sheet of sole proprietor ship Adjustments in preparation of financial statements: abnormal loss, goods taken for personal use and goods distributed as free samples, manager's commission Incomplete Records Features, reasons and limitations Ascertainment of profit /loss by statement of affairs method(excluding conversion method) REVISION	• Appreciate grouping and marshalling of assets and liabilities		
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SUGGESTIONS TO PARENTS:

1. Motivate your ward to regularly practice the numerical.
1. Encourage the child to work as per the time limit and in the defined formats.
2. Be in touch with the concerned teachers to regularly access the performance.

UNITS		Marks	
UNIT 1	PART A Theoretical framework	12	Time: 3 hrs. Max Marks.(80
UNIT 2	Accounting process	44	

UNIT 3	PART B Financial statements of sole proprietorship:	24	theory 20 practical)
	PART C Project work	20	

LEARNING OBJECTIVES:

2. To acquaint the learners about the significance of recording financial transactions.
3. To make the learners proficient in the application of accounting rules so as to produce authentic financial records.
4. To help the learners in comprehending the changing role of accounting in the present scenario of increasing societal demand.

TEXT BOOKS:

1. Financial Accounting Part I & II- by NCERT

RECOMMENDED BOOKS:

2. Accountancy for Class XI: D.K. Goyal

COMPUTER SCIENCE

Learning Objective

- To enable students to understand and apply basic computational thinking.
- To enable students to learn the Python fundamentals.
- To enable students to understand the notion of data types and data structures and apply in different situations.
- To enable students to appreciate the notion of an algorithm and apply its structure including how algorithms handle corner cases.
- To enable students to develop a basic understanding of computer systems - architecture, operating system, mobile and cloud computing.
- To enable students to work in the cyber world with understanding of cyber ethics, cyber safety and cybercrime
- To enable students to make use the value of technology in societies, gender and disability issues and the technology behind biometric ids.

Textbook:

Computer Science with Python – Textbook of Class XI by Sumita Arora (Publisher- Dhanpat Rai & Co)

RECOMMENDED BOOKS:

MONTH	COURSE CONTENT	LEARNING OUTCOME	SKILL	TEACHING AIDS
July	<u>Unit 2:- Computational Thinking and Programming-1</u> Ch6 : Getting Started with Python	To learn the basic concepts of python fundamentals	• Understanding • Computational Thinking • Identifying • Critical Thinking	Demonstration Powerpoint Presentations and Online Quizzes
July	<u>Unit 2:- Computational Thinking and Programming-1</u> Ch7 : Python Fundamentals Ch 8: Data Handling Ch 9: Flow of Control	To learn the python tokens and data types To learn about different type of statements – sequential, selection and iteration To enable students to understand conditional statement if ·To enable students to understand iteration with the help of for loop and while loop.	• Understanding • Computational Thinking • Identifying • Critical Thinking	Demonstration Powerpoint Presentations and Online Quizzes Class Test- MCQ
August	<u>Unit 2:- Computational Thinking and Programming-1</u> Ch10 : String Manipulation Ch 11: List Manipulation	·To enable students to understand the concept of strings · Ability to use basic data structures: Lists	• Understanding • Applying • Decision Making • Critical Thinking • Analysing • Problem Solving	Demonstration Powerpoint Presentations Notes, Assignments and Quizzes
August	<u>Unit 2:- Computational Thinking and Programming-1</u> Ch11 : List Manipulation Ch 8- Data Handling- Introduction to Standard Library Modules:	• Ability to use basic data structures: Lists • Ability to understand and apply basic computational thinking. • Ability to work upon maths module (pi, e, sqrt, ceil, floor, pow, fabs, sin, cos, tan) and random module (random, randint, randrange), statistics module (mean, median, mode)	• Understanding • Analysing • Problem Solving • Critical Thinking • Decision Making • Applying Formulas	Demonstration Powerpoint Presentations Notes, Assignments

	<u>Unit 1 :Computer System and Organisation</u> Ch 2: Data Representation Ch 3: Boolean Logic	• Ability to learn the concept of different Number systems, Decimal, Binary, Octal and Hexadecimal • Ability to learn the concept of Boolean algebra, Boolean laws and gates.		
September	<u>Unit 1 :Computer System and Organisation</u> Ch 1: Computer System Overview <u>Unit 2:- Computational Thinking and Programming-1</u> Ch8 : Data Handling- Introduction to Standard Library Modules Ch11 : List Manipulation- Nested List Ch 14: Understanding Sorting	• Students will learn about the computer components-: description of a computer system and mobile system, CPU, memory, hard disk, I/O, battery. • Types of software: Application software, System software and Utility software. • Memory Units: bit, byte, MB, GB, TB, and PB • Application based programs on random module • Understanding sorting algorithms- Bubble sort and insertion sort using traditional method and using bisect module	• Analysing • Problem Solving • Critical Thinking • Creative Thinking	Demonstration Powerpoint Presentations Notes, Assignments and Pen and Paper Test
October	<u>Unit 2:- Computational Thinking and Programming-1</u> Ch12 : Tuples Ch13 : Dictionaries	• Ability to use basic data structures:- Tuples. • Ability to use basic data structures: dictionary.	• Analysing • Evaluating • Extra poleting • Problem Solving • Critical Thinking • Creative Thinking	Project Simulation and real life examples Powerpoint Presentations Notes, Assignments and Online Quizzes
November	<u>Unit 2:- Computational Thinking and Programming-1</u> Ch13 : Dictionaries <u>Unit 3 :Society, Laws and Ethics</u>	• Ability to use basic data structures: dictionary	• Understanding • Applying • Problem Solving	Project Simulation and real life examples

	Ch 15 : Cyber Safety	To enable students to work in the cyber world with understanding of cyber ethics, cyber safety and cybercrime		Powerpoint Presentations Notes, Assignments
December	<u>Unit 3 :Society, Laws and Ethics</u> Ch 16 : Online Access & Computer Security	Students will be able to understand the threats to computer security and solutions to computer security threat.	- Understanding - Applying - Problem Solving	Project Simulation and real life examples Powerpoint Presentations Notes, Assignments
January	<u>Unit 3 :Society, Laws and Ethics</u> Ch17- Society Law and Ethics	Students will learn about Ethical Issues like Intellectual property rights, Digital Property Rights, open source philosophy, open data and privacy, Technology and Society, e waste management.	- Understanding - Evaluating - Logical Thinking	Powerpoint Presentations and Online Quizzes
February	Revision	Revision	Revision	Revision