



TAGORE INTERNATIONAL SCHOOL
EAST OF KAILASH, NEW DELHI

Class XI
PARENT SYLLABUS 2025 -2026
SCIENCE

Month	English	Physics	Math	Chemistry	Biology	Computer science	Economics	Psychology	P.Ed.
July	Topic: 1. Prose: <u>The Summer of the Beautiful White Horse-</u> Learning Outcomes Each student will be able to -paraphrase the text and explain the ideas -justify the title -write character sketches analysing the actions of the characters -filter value points from the text to answer the questions asked -write a speech in about 150 words, following a proper format -add at least 3-4 new words to	Topic: Kinematics -Motion in a plane Sub- Topics Scalar and vector quantities; position and displacement vectors Types of vectors and their notations; equality of vectors, multiplication of vectors by a real number Addition and subtraction of vectors Resolution of a vector in a plane, rectangular components Multiplication of vectors Projectile motion Uniform circular motion Conceptual questions and Numerical Learning Outcomes *draw vector diagram to	Topic: Straight Lines Sub- Topics *Introduction *Slope of a line *Slope of line when coordinates of any two points on the line are given * Condition of parallelism and perpendicularity of lines in terms of their slopes *Angle between two lines *Various forms of equations of lines *Distance of a point from a line Learning	Topic: Classification Of Elements and Periodicity in Properties Sub-Topics: - Need of classification, History of classification -Mendeleev's Periodic Table -Modern periodic law and the present long form of periodic table -Nomenclature of elements with atomic no. > 100 - Electronic Configuration - Division into blocks- characteristics of s, p, d & f block elements. -Position in the periodic table -Trends in the periodic	Topic: Cell: The Unit of Life Subtopics: -Cell and Cell Theory -An Overview of Cells -Prokaryotic Cells -Eukaryotic Cells Topic: Cell Cycle and Cell Division Subtopics: -Cell Cycle -M Phase -Significance of mitosis -Meiosis and Significance of Meiosis Topic:	Familiarization with the basics of Python Programming: a simple "hello world" program, the process of writing a program (Interactive & Script mode), running it and print statements; simple data-types: integer, float and string. ● Features of Python, Python Character Set, Token & Identifiers, Keywords, Literals, Delimiters,	Unit1: Introduction to Microeconomics *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	Unit 2: Methods of Enquiry Psychological Testing Case Study Limitations of enquiry Ethical issues Learning Outcomes Each student will be able to: Explain case study method Describe the	Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang) Concept of Disability and Disorder Types of Disability, its causes & nature (Intellectual disability, Physical disability) Disability Etiquette Aim & Objective of Adaptive

his/her vocabulary <u>2. Writing Skill:</u> <u>Debate Writing</u> Learning Outcome Each student will be able to: -differentiate between the writing skills- Speech and Debate -comment on the style and diction that should be adopted while writing a debate -frame at least 2-3 phrases to be used in a debate <u>3. Poem:</u> <u>The Laburnum Top</u> Learning Outcome Each student will be able to -comment on the theme and meaning of the poem -recite the poem with proper tone and rhyme and -identify at least 3 poetic devices incorporated in the poem -draw a comparative study between human life and	represent position vector and displacement vector. *write the equations for position vector and displacement vector. *list the different types of vectors and diagrammatically represent them. *state the condition for equality of vectors. *conclude the effect on the magnitude of a vector when multiplied by a real number. *represent the rectangular component of vectors by mathematical equation. *apply formulae and solve related numerical. *represent horizontal projectile and angular projectile diagrammatically. *list examples (at least two each) for horizontal and angular projectile. *derive mathematical equations for trajectory, time of flight, height and range for horizontal as well as angular projectile. *mention the terms related to rotational	Outcomes Each child will be able to: *find the slope of a line *Various forms of a line 1.one-point form, 2. two-point form, 3. slope-intercept form, 4. intercept form, *find the equation of a line using the various forms of Line. *Calculate the distance of a point from a line Topic: Conic Sections Subtopics: *Introduction *Sections of a cone * Circle, ellipse, parabola and hyperbola * Degenerated conic sections * Circle *Introduction *Sections of a cone * Parabola * Latus rectum	Properties:Atomic radii-ionic radii & inert gas radii - Ionization enthalpy, electron gain enthalpy - Electronegativity, valency and chemical reactivity) Topic: Redox Reactions Sub-Topics: - Classical and Electronic concept of redox reactions - Oxidation and Reduction reactions. -Redox reactions in terms of Oxidation number and calculation of oxidation number Types of redox reactions - Disproportionation reaction-Balancing of redox reactions-Half reaction method and Oxidation number method Learning Outcomes Each student will be able to: Discuss the need of	Biomolecules Subtopics: -Primary and Secondary Metabolites and Biomacromolecules -Proteins and Structure of Proteins -Polysaccharides and Nucleic Acids -Enzymes Topic: The Living World Subtopics: - Diversity in the Living World - Taxonomic Categories Topic: Biological Classification Subtopics: - Kingdom Monera - Kingdom Protista - Kingdom Fungi - Kingdom Plantae - Kingdom Animalia - -Viruses, Viroids and Lichens Learning Outcomes Each student will be able to: - explain discovery	Operators. ● Comments: (Single line & Multiline/ Continuation statements), Clarity & Simplification of expression ● Introduce the notion of a variable and methods to manipulate it (concept of L-value and R-value even if not taught explicitly). ● Knowledge of data types and operators: accepting input from the console, assignment statement, expressions, operators and their precedence. ● Operators & types: Binary operators-Arithmetic, Relational Operators, Logical Operators,	of PPC and Opportunity Cost, MOC and MRT Learning Outcomes: 1. Underst and the concept of scarcity 2.State the reasons behind emergence of Problem of choice 3.Analyse the Central Problems 4.Apply the concept of PPC understanding its characteristics and shifts 5.Solve for MOC and MRT numerically 6.Distinguish between positive and normative	limitations of psychological enquiry Explain ethical considerations of research UNIT 9 Motivation and Emotion Nature of motivation Types of motives Theories of emotion. Managing negative emotions Enhancing positive emotions Learning Outcome Describe nature of motivation Describe types of motives Explain theories of emotion	Physical Education Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator) Learning Outcomes Each student will be able to: Identify the concept of Disability and Disorder Outline types of disability and describe their causes and nature Adhere to and respect children
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nature. -comment on the importance of interdependence and living in harmony -express themselves through writing tasks -filter value points from the text to answer the questions asked <u>4. Prose:</u> We're Not Afraid to Die...if We Can All Be Together Learning Outcome Each student will be able to -justify the title of the story -identify the personal traits of the characters -summarise the plot in their own style -comment on the values highlighted in the story -filter value points from the text to answer the questions asked -add at least 3-4 new words in his/her vocabulary	motion and relate these with linear motion. *apply the formulae logically and solve conceptual question, numerical. Topic: LAWS OF MOTION Sub- Topics Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion Law of conservation of linear momentum and its applications Friction and its cause Static and kinetic friction, laws of friction Level curved road and banked curved road Numerical Learning Outcomes *explain the effect of force in terms of the different changes that it may cause on an object. *explain the relation between force and inertia	* Ellipse * Relationship between semi-major axis, semi-minor axis and the distance of the focus from the centre of the ellipse * Special cases of an ellipse * Eccentricity * Standard equations of an ellipse * Latus rectum *Hyperbola *Eccentricity * Standard equations of an hyperbola * Latus rectum Learning Outcomes Each child will be able to: *define a parabola and recognize/find the standard equation of parabola *define/find the coordinates of focus, axis, equation of directrix and length of latus rectum of a	classification of elements. Discuss the basis and features, law, merits and demerits of Mendeleev's and Modern Periodic Table. Explain the significance of electronic configuration as the basis of classification. Write and explain the electronic configuration of first twenty elements (using rules for filling of orbitals). Classify the elements into s, p, d & f blocks and compare their characteristics. Write IUPAC names for elements with Z > 100 Predict the position of the elements (period and group no) in the periodic table using configuration. Define periodic properties- atomic and ionic radii, ionization enthalpy,	of cell -mention the cell theory - compare plant cell and animal cell as well as prokaryotic cell and eukaryotic cell -state the role of mesosome in prokaryotic cell - mention the structure and function of cell membrane, cell wall, Golgi apparatus, vacuoles, endoplasmic reticulum and lysosomes - differentiate between smooth endoplasmic reticulum and rough endoplasmic reticulum -explain the structure and function of a mitochondrion and draw its diagram -name the three types of plastids and state their functions - describe the	Augmented Assignment Operators. Flipped Learning: Mind Map NCERT Chapters extract YouTube videos • Execution of a program, errors- syntax error, run-time error and logical error. • Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers and divisibility of a number. • Notion of iterative computation and control flow: for(range(),len()), while, using flowcharts, suggested programs: calculation of simple and compound interests, finding the factorial of a	economic s <u>Microeconomics</u> <u>Demand and Elasticity of Demand</u> *Demand; Market Demand; Determinants of Demand; Demand Schedule; Demand Curve- its slope *Movement along the demand curve and shift in the demand curve *Law of Demand & its exceptions *Price elasticity of demand- factors affecting Ed *Measurement of Ed- percentage and total	Explain ways of managing negative emotions Explain ways to enhance positive emotions UNIT 4 Human Development Meaning of development Life-span perspective on development Bronfenbrenner's contextual view of development Prenatal development Childhood developmental stages Development during adolescence Learning Outcome Each student will be able to: Describe the	with special needs by following etiquettes Identify possibilities and scope in adaptive physical education Relate various types of professional support for children with special needs along with their roles and responsibilities Unit V Physical Fitness, Health and Wellness Meaning and Importance of Wellness, Health and Physical Fitness Components/Dimensions of Wellness, Health and
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		(relate to real life example) *interpret the relation between inertia and mass. *state the laws of motion. *state the applications of conservation of linear momentum *list the causes of friction *list the three different types of friction and differentiate between them. *state the laws of friction. *derive the equations for the dynamics of motion on level curved road and banked curved road. *apply concepts and formulae to solve related questions.	parabola *define an ellipse and recognize /find the standard equations of an ellipse *state the relationship between semi-major axis, semi-minor axis and the distance of focus from the centre of the ellipse *define eccentricity *define/find the coordinates of foci, vertices, lengths of major axis, and minor axis, eccentricity and length of latus rectum of the given ellipse *define a hyperbola and recognize/find the standard equations of a hyperbola *define/find the coordinates of foci, vertices, eccentricity and length of latus rectum of the	electron affinity, electronegativity, valency and chemical reactivity. Explain the trends and exceptions related to the above periodic properties. Compare the relationship between ionization enthalpy and metallic character. Explain diagonal relationship shown by Li and Mg, Be and Al. Solve reasoning-based questions on the periodic trends. Redox Reactions: Define the terms oxidation, reduction, oxidizing & reducing agent in terms of classical concept and electronic concept. Cite examples for redox reactions in terms of classical, electronic & Oxidation number concept. Apply rules to calculate oxidation number of an atom in different species.	structure of chloroplast and - draw its diagram - compare the electron microscopic structure of cilia/flagella and centriole -draw four types of chromosomes based on the position of centromere -draw labeled diagram of plant and animal cell -explain cell cycle -state three processes which take place in interphase - mention the significance of mitosis - describe the different stages of mitosis with the help of labelled diagrams - compare cytokinesis in plant cell and animal cell - differentiate between mitosis and meiosis -	positive number etc Learning Outcomes Each child will be able to– ➤ state the purpose behind algorithms and flowcharts. ➤ Identify different shapes of flowchart use each shape in a flowchart. ➤ Define data and identify different data types. ➤ Understand rules of naming variables and identifying datatypes ➤ Be able to assign proper variable names.	expenditure method <u>Consumer's equilibrium</u> *Utility approach- meaning of Utility, Marginal Utility, *Law of Diminishing Marginal Utility, *Conditions of consumer's equilibrium using cardinal approach *Indifference Curve approach- Budget Set, Budget Line, Monotonic preferences, Indifference Curve, Indifference Map and *Conditions of consumer's equilibrium Learning	meaning and process of development Explain the influence of heredity and environment on human development Identify the stages of development Describe the major characteristics of infancy, childhood and adolescence	Physical Fitness Traditional Sports & Regional Games for promoting wellness Leadership through Physical Activity and Sports Introduction to First Aid – PRICE Learning Outcomes Each student will be able to: Explain wellness and its importance and define the components of wellness Classify physical fitness and recognize its importance in life
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			given hyperbola.	Define the term disproportionation reaction. Apply the rules to calculate oxidation number for an element in different species. Balance redox reactions using half reaction & oxidation number method	explain the significance of meiosis -describe the different stages of meiosis I and II with the help of labelled diagrams -state two examples of biomacromolecules -explain giving reason as to why lipids are not biomacromolecules -list the functions of proteins, carbohydrates and nucleic acids -explain four levels of protein structure - describe the structure of DNA - mention three properties of enzymes and explain their functions - describe activation energy of enzymes -list three factors affecting the functions of	➤ Use the statements according to syntax and in proper sequence. ➤ Identify the different types of operators used in PYTHON. ➤ Use the operator according to requirement in the program use the statements according to the syntax ➤ form proper condition checking statements differentiate among looping statements di ➤ use these statements in programs ➤ Use if..else statements in a program ➤ Use loops to create applications	Outcomes: The students would be able to: 1. Understand the conditions of consumer's equilibrium in case of single and two commodities . 2. State and explain the law of Diminishing Marginal Utility 3. Comprehend the significance of indifference curves 4. State the reason behind downward demand curve 5. Apply the role of budget line and apply in everyday life 6. Analyse		Distinguish between skill related and health-related components of physical fitness Explain traditional sports and regional games to promote wellness Relate leadership through physical activity and sports Know the different steps used in first aid - PRICE
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					enzymes -state three kinds of cofactors and mention their application. - explain why it is important to classify organisms -describe binomial nomenclature with an example -list the universal rules of nomenclature - name taxonomic categories in ascending order of hierarchical arrangement - compare characteristics of the five kingdoms -name the four categories of bacteria based on their shape - distinguish between Archaeobacteria and Eubacteria - name the groups of Kingdom Protista and state two characteristics of each. -mention two features of Kingdom Fungi -	➤ use the nested loops statements according to the syntax ➤ form proper condition checking statements ➤ use the statements in programs	and apply the concept of Elasticity of Demand in Business.		
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					compare the features of classes of fungi - mention one feature each of viruses, viroids, prions and lichens				
Aug	1. Prose: Discovering Tut: the Saga Continues Learning Outcome Each student will be able to give reasons as to why King Tut's body has been subjected to repeated scrutiny explain why Howard Carter's investigation was resented justify the title enumerate the examples of scientific advancements that have revolutionised the field of archaeology 2. Reading: <u>Note Making and Summarisation</u> Learning Outcome Each student will be able to	Topic: Work, Energy Power Subtopics: Work done by a constant force and a variable force Kinetic energy, Work Energy Theorem Connected Motion and Power Notion of potential energy, potential energy of a spring Conservation of mechanical energy Elastic and Inelastic collisions in one and two dimensions Numerical Learning Outcomes *derive relation for work done by constant and variable force. *interpret the conditions for positive, negative and	Topic: Complex Numbers and Quadratic Equations Subtopics: *Introduction *Complex numbers *Algebra of complex numbers Learning Outcomes Each Student will be able to: *recognize the need of a system of numbers beyond Real Numbers. *define iota. *define a complex number * find the sum, difference, quotient and product of two complex	Topic: Redox Reactions Sub topics: - Redox reactions and electrode processes, Galvanic cell, electrochemical series and its applications Topic: Structure Of Atom Sub topics: - Developments leading Bohr's model of atom- dual character of electromagnetic radiation -Wave nature of electromagnetic radiation- Electromagnetic spectrum -Dual behaviour of electromagnetic radiation, -Atomic spectra- Emission & absorption spectra, Line spectrum of Hydrogen Bohr's model- Postulates & Limitations -Developments leading	Topic: Plant Kingdom Subtopics: -Algae -Bryophytes -Pteridophytes -Gymnosperms -Angiosperms Topic: Animal Kingdom Subtopics: -Basis of classification and Levels of Organisation -Porifera and Coelenterata -Ctenophora and Platyhelminthes -Aschelminthes and Annelida -Arthropoda and Mollusca - Echinodermata and Hemichordata -Chordata	Strings: introduction, indexing, string operations (concatenation, repetition, membership & slicing), traversing a string using loops, built-in functions: len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(),rstrip(), strip(), replace(), join(), partition(), split()	MEASURES OF CENTRAL TENDENCY Arithmetic mean, median and mode Learning Outcomes: Each child will be able to: To understand the need for summarising a set of data by one single number To recognise and distinguish between different types of averages To compute different	UNIT-5 Sensory, Attentional and Perceptual Processes Knowing the world; Nature of stimuli; Nature and functioning of sense modalities Attention : Nature and determinants; Selective and sustained attention; Perceptual Processes, The Perceiver, Principles of Perceptual Organisation. Perception	Unit VI Test, Measurement & Evaluation Define Test, Measurement & Evaluation Importance of Test, Measurements and Evaluation in Sports Calculation of BMI, Waist – Hip Ratio, Skin fold measurement (3-site) Somato Types (Endomorphy, Mesomorphy & Ectomorphy) Measurements of health-related fitness Learning

-read the passage with understanding -define note making -summarise the passage for note making -filter value points from the text to prepare notes <u>3. Prose: The Address</u> Learning Outcome Each student will be able to -interpret the title -comment on the outcome of wars and the hardships that follows it -bring out the optimism in the story -identify three-four character traits of the narrator and Mrs. Dorling -filter value points from the text to answer the questions asked -add at least 3-4 new words in his/her vocabulary <u>4. Poem: The Voice of the Rain</u> Learning Outcome Each student will be able to -identify poetic devices	zero work done. *state and prove mathematically work energy theorem. *correlate between the two types of potential energy with real life examples. *derive expressions for potential energy of mass spring system. *state the principle of conservation of energy. *differentiate between elastic collision and inelastic collision. *mathematically derive equations related to collisions. *relate the conclusions for various cases of elastic collision to real life situations like in nuclear power plant use of moderators. Topic: System of Particles and Rotational Motion Subtopics: Motion of System of Particles and Rigid body: center of mass of a two-particle system, center of mass of a n particle system Velocity and acceleration of centre of mass	numbers. *define conjugate and modulus of z.	Quantum Mechanical Model of atom Dual behaviour of matter (de-Broglie equation) & Heisenberg uncertainty principle- Significance and Limitations -Numerical related to wave characteristics, de-Broglie equation and Heisenberg uncertainty principle. -Quantum Mechanical Model of atom- Schrodinger wave equation and Postulates - Quantum number - Concept of orbitals - Shapes & energy of atomic orbitals- s, p and d, nodes. - Electronic configuration- Rules for filling of atomic orbitals- Aufbau principle, n+l Rule, Pauli's exclusion principle, Hund's rule of maximum multiplicity. -Electronic configurations & their stability of Reasons Learning Outcomes Each student will be able to: Redox Reactions	Topic: Photosynthesis in Higher Plants Subtopics: -Early experiments -Site of photosynthesis and types of pigments involved in photosynthesis -Light reaction - The electron transport Learning Outcomes Each student will be able to: - describe the basis of classification of algae -explain two characteristics each of algae and bryophytes -state two examples each of algae and bryophytes - compare Chlorophyceae, Phaeophyceae and Rhodophyceae on the basis of their pigments, stored food and cell wall - differentiate between liverworts	● Lists: introduction, indexing, list operations (concatenation, repetition, membership & slicing), traversing a list using loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list Learning Outcomes Each child will be able to—.	types of averages Draw meaningful conclusions from a set of data Develop an understanding of which type of average would be the most useful in a particular situation. <u>SUPPLY</u> Market supply, determinant s of supply, supply schedule, supply curve and its slope, movement along and shifts in supply curve, price elasticity of supply, measurement of price elasticity of supply, percentage change method	space, depth and distance. Perceptual constancies, Illusions, Socio-cultural influences on perception. Learning Outcomes Each student will be able to: Describe that the nature of stimuli is based on our seven sense organs. Describe the functioning of sense modalities (visual sensation and the ear) and the concept of Adaptation Understand the concept of attention and various factors and a brief about ADHD. List down the principles of	Outcomes Each student will be able to: Define the terms test, measurement, and evaluation Differentiate norm and criterion referenced standards Differentiate formative and summative evaluation Discuss the importance of measurement and evaluation processes Understand BMI: A popular clinical standard and its computation Differentiate between Endomorphy,
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	-comment on the theme and autobiographical features of the poem - read the poem with proper tone and rhythm -explain the meaning of the poem	Centre of mass locations of rigid body and momentum conservation Numerical Learning Outcomes *differentiate between center of mass and center of gravity. *draw diagrams and calculate the position of center of mass of given system of particle. *define the term rigid body and tabulate the position of centre of mass for some common rigid bodies. *state the principle of conservation of angular momentum and interpret its applications in the field of sports.		Learn the concept of redox reactions in terms of electrode process (Galvanic cell) and electrochemical series Apply electrochemical series to determine the relative strength of oxidants and reductants and feasibility of reactions. Structure of Atom Discuss the postulates and limitations of Bohr atomic model. Derive de Broglie equation and formula for Heisenberg's Uncertainty Principle Solve numerical on de Broglie equation and Heisenberg's Uncertainty Principle. Discuss the basis and postulates of Quantum mechanical model. Discuss the properties of different types of orbitals (s, p,	and mosses - explain the importance of algae and bryophytes - describe two characteristics each of pteridophytes and gymnosperms - mention two examples each of pteridophytes and gymnosperms - compare the features of pteridophytes and gymnosperms - differentiate between homosporous and heterosporous pteridophyte - explain the importance of pteridophytes and gymnosperms - distinguish between gymnosperms and angiosperms - explain the different features used as basis of animal classification. -	➤ Declare strings and use strings in programming ➤ Apply string functions in programming ➤ use functions for different operations-character math , string etc. ➤ create user defined functions ➤ apply concepts of string slicing in programming ➤ use different inbuilt functions in stringprogram ming ➤ Define lists ➤ Declare lists and nested lists ➤ Apply lists based functions in programs	Learning Outcomes: Each child will be able to: • Define supply, market supply • Draw supply curve to explain the effect of various factors • Illustrate expansion/ contraction ; increase / decrease in supply. • Compute elasticity of supply	Perceptual organization. Describe perceptual constancies and the concept of illusions. Differentiate between monocular and binocular cues to depth perception. Understand the socio-cultural influences on perception.	Mesomorphy & Ectomorphy Describe the procedure of Anthropometric Measurement Unit VII Fundamentals of Anatomy, Physiology in Sports Definition and importance of Anatomy and Physiology in Exercise and Sports Functions of Skeletal System, Classification of Bones, and Types of Joints Properties and Functions of Muscles Structure and Functions of Circulatory System and Hear Structure and Functions of Respiratory
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				d, f). Draw orbital picture diagrams for s, p and d orbitals. Interpret the quantum numbers for a given notation. State and explain the rules involved in the filling of orbitals- Aufbau rule, n+rule, Pauli's Principle and Hund's rule. Predict and write the electronic configuration of the different species (atoms/ ions). Discuss reason for the exceptional configurations. Predict the magnetic behaviour of different species from their electronic configuration. Identify the iso-electronic species. Solve reasoning and application-based questions on the above topics.	state two characteristic features of different phyla (Porifera, Coelenterata, Ctenophora, Platyhelminthes, Aschelminthes, Annelida, Arthropoda, Mollusca and Echinodermata) - mention one example each of Porifera, Coelenterata, Ctenophora, Platyhelminthes Aschelminthes and Annelida, Arthropoda, Mollusca and Echinodermata - differentiate between chordates and non-chordates based on structural and functional features. - compare and contrast the major classes of vertebrates				System Learning Outcomes Each student will be able to: Identify the importance of anatomy and physiology Recognize the functions of the skeleton Understand the functions of bones and identify various types of joints Figure out the properties and functions of muscles and understand how they work Understand the anatomy of the respiratory system and describe its working
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(Pisces, Amphibia, Reptilia, Aves, Mammalia). -state the importance of photosynthesis – mention the site of photosynthesis - name four pigments involved in photosynthesis -explain the structure of chloroplast and its role in photosynthesis -compare cyclic and non-cyclic photophosphorylation. -identify the components of the electron transport chain (ETC), including NADH, FADH₂, cytochromes, and ATP synthase. -describe the stepwise transfer of electrons and the associated release of energy.

Identify and analyses the layout and functions of Circulatory System

Sept	<u>1. Writing Skill Advertisement</u> Learning Outcome Each student will be able to - identify the requisites of the advertisement -frame short but meaningful phrases for the Ads. -draft classified Ads. as per the format <u>2. Reading Comprehension: Unseen Passage</u> Learning Outcome Each student will be able to -paraphrase the passage -explain the questions -filter value points from the text to answer the questions asked <u>3. Revision of all the Short and Long Writing skills and Literature section</u> Learning Outcome Each student will be able to -recapitulate the themes of the	Topic: System of Particles and Rotational Motion Subtopics: Torque, angular momentum and its conservation, its application Rigid body rotation, equation of rotational motion Moment of inertia and value of moments of inertia of simple geometrical objects Related questions Learning Outcomes *conclude torque, angular momentum, moment of inertia as the rotational analogue of force, momentum and mass and derive relation between them. *apply formulae logically and solve numerical. *apply formulae and solve related numerical.	Topic: Linear Inequalities Subtopics: *Inequations *Algebraic Solutions of Linear Inequalities in one Variable and their Graphical Solution Learning Outcomes Each Student will be able to: *define an Inequation *find algebraic solution of linear inequalities in one variable and represent it on number line.	Topic: Chemical Bonding and Molecular Structure Subtopics: Topic:Chemical Bonding and Molecular Structure Subtopics: - Kossel- Lewis approach to chemical bonding, octet rule, -Modes of chemical combination-Ionic bond, Covalent bond and Coordinate bond. -Lewis dot structure & formal charge calculation -Valence bond theory of covalent bond-Energy concept -Orbital overlap concept-σ and π bond Revision for Mid Term Examination Learning Outcomes Each student will be able to: Explain Kossel-Lewis approach to chemical bonding. State and explain octet rule & its limitations. Draw Lewis dot	Topic: Photosynthesis in Higher Plants (contd.) Subtopics: -The Calvin cycle -The C₄ Pathway - Photorespiration -Factors affecting photosynthesis Revision for Mid-Term Examination Learning Outcomes Each student will be able to: - illustrate Calvin cycle and Hatch and Slack pathway by drawing their labelled diagrams -differentiate between the anatomy of leaf in C₃ and C₄ plants -explain the process of photorespiration - mention any two factors affecting the process of photosynthesis	REVISION for mid-term exam Learning Outcomes Each child will be able to =>clarify doubts in Python and fundamentals: =>recapitulate the important concepts, laws and rules. =>apply the same to answer related questions.	<u>PRODUCTI ON FUNCTION</u> Short run and long run production function, Total product, average product, marginal product, Returns to a factor Learning Outcome Each student will be able to: Define Production Function ● Explain the relationship between TPP, MPP and APP ● State the law of variable proportions ● State the law of diminishing returns	UNIT-6 Learning Nature of learning and learning curve: Paradigms of learning : Classical conditioning REVISION Learning Outcomes Each student will be able to: Describe the nature of learning and features of learning. List down the paradigms of learning Explain classical conditioning	Revision for Mid Term Examination
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	lessons -recall the format and rules related to the writing skills and grammatical concepts -draft ads and posters -draft sample speech and debate -answer the HOTS questions from the prescribed lessons <u>4. Assessment of Listening and Speaking Skills</u> Learning Outcome Each student will be able to - listen carefully to the podcast -speak up confidently - use the language and vocabulary appropriately			structure & hence calculate formal charge on each atom of the molecule. Explain the valence bond approach to covalent bond. Differentiate between σ & π bonds.					
Oct	<u>Prose: Mother's Day</u> Learning Outcome Each student will be able to -highlight the role and status of a mother in a household (after watching the Ted talk shared with them) -identify at least 4-5 characteristics that mothers possess	Topic: GRAVITATION Subtopics: *Universal law of gravitation. Acceleration due to gravity (recapitulation only) *Variation of acceleration due to gravity with altitude and depth *Gravitational Field Intensity, *Gravitational potential energy and	Topic: Limits and Derivatives (11) Subtopics: *Introduction *Intuitive idea of Derivatives *Limits *Limits of trigonometric / Exponential / algebraic functions *Derivatives	Topic: Chemical Bonding and Molecular Structure Subtopics: - Bond characteristics, Resonance Concept of Hybridisation (concept, types- sp^3, sp^2, sp, sp^3d, sp^3d^2, sp^3d^3) - Concept of Hybridisation (types- sp^3, sp^2, sp, sp^3d, sp^3d^2, sp^3d^3)	Topic: Respiration in Plants Subtopics: -Glycolysis -Fermentation -Aerobic respiration and Tricarboxylic Acid Cycle -Electron Transport System (ETS),	Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership & slicing), built-in functions: len(), tuple(), count(), index(),	<u>COST- Short run costs-</u> - Total Cost, - Total Fixed Cost, - Total Variable Cost, - Average Cost, - Average Fixed Cost, - Average Variable Cost, - Marginal Cost- meaning and	UNIT-6 Learning Nature of learning and learning curve: Paradigms of learning : Operant Conditioning Observational Learning, Cognitive learning	Unit VIII Fundamentals of Kinesiology and Biomechanics in Sports Definition and Importance of Kinesiology and Biomechanics in Sports Principles of Biomechanics

	-analyse the theme and write their interpretation of the title -filter value points from the text to answer the questions asked -compose a song dedicated to mothers	gravitational potential *Superposition Principle and its application *Escape velocity, orbital velocity of a satellite *Numerical Learning Outcomes *derive mathematical equations to explain the variation of g with altitude above the surface of earth and depth below the surface of earth. *compare gravitational field with that of magnetic field *derive mathematical expressions for gravitational potential energy and potential. *apply superposition principle to find the resultant gravitational field intensity for simple mass configuration. *differentiate between escape velocity and orbital velocity. *deduce the mathematical equations for escape velocity and orbital velocity.	Learning Outcomes Each child will be able to: *define limit of a function *perceive the geometrical interpretation of limits *evaluate the limit of various functions *define derivative of a function at a point *perceive the geometrical interpretation of derivatives *evaluate derivatives using the method of first principle. *learn the formulas of derivatives of some standard functions *perceive the concept of chain rule, quotient rule and product rule *apply the knowledge	VSEPR Theory and its limitations Polar and non-polar covalent bond-Dipole moment Hydrogen bonding-concept, types and its effects on physical properties. Molecular orbital theory , energy level diagrams (diatomic homoatomic molecules) Learning Outcomes Each student will be able to: Predict the directional properties of covalent bond. Discuss the concept of Resonance & also draw the resonating structures. Draw and explain the hybridization patterns for different molecules. Apply VSEPR Theory to predict the geometries of molecules. Define dipole moment and discuss its applications. Explain H-bonding and its requirements. Differentiate between	-Oxidative Phosphorylation, -The respiratory balance sheet and amphibolic pathway Topic: Plant Growth and Development Subtopics: - Growth - Differentiation, Dedifferentiation, Redifferentiation and Development -Plant Growth Regulators Learning Outcomes Each student will be able to: - name two types of respiration and compare them -explain glycolysis and fermentation - mention two steps of glycolysis in which ATP is utilized -illustrate the citric acid cycle -differentiate between glycolysis and citric acid cycle -	sorted(), min(), max(), sum(); tuple assignment, nested tuple, suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple Introduction to Python modules: Importing module using 'import <module>' and using from statement, Importing math module (pi, e,sqrt, ceil, floor, pow, fabs, sin, cos, tan); random module	their relationships <u>REVENUE</u> - Total Revenue, Average Revenue, Marginal Revenue-meaning and their relationship <u>PRODUCER'S</u> <u>EQUILIBRIUM</u> - Meaning and its conditions in terms of MR and MC. Learning Outcomes: Each student will be able to: - Explain firm's cost and revenue goals using TC, ATC,FC, AFC, AVC and MC - State the conditions of producer's equilibrium using MR-	Learning disabilities; Applications of learning principles Learning Outcomes Each student will be able to: Describe the nature of learning and features of learning. List down the paradigms of learning as two types of conditioning and other ways of learning including Observational Learning, Cognitive learning, Verbal learning, Concept learning, skill-learning. Analyze the factors influencing learning and various learning styles.	Kinetics and Kinematics in Sports Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation Axis and Planes – Concept and its application in body movements Learning Outcomes Each student will be able to: Understand Kinesiology and Biomechanics with their application in sports Explain biomechanical principles and their utilization in sports and
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			gained in differentiating functions.	inter and intra molecular hydrogen bonding. Explain the postulates of Molecular Orbital Theory. Differentiate between bonding and anti-bonding molecular orbitals. Draw the energy level diagrams of homo diatomic molecules to predict their magnetic behavior	describe electron transport system -justify that aerobic respiration is more efficient - explain as to why respiratory pathway is called amphibolic pathway -state the characteristics and conditions for growth -name the three phases of growth -plot graphs to show arithmetic and geometric growth -explain differentiation, dedifferentiation and redifferentiation - describe the characteristics, discovery, physiological effects and application of various plant growth regulators	(random, randint, randrange), statistics module (mean, median, mode) Learning Outcomes Each child will be able to—. ➤ Declare strings and use strings in programming ➤ Apply string functions in programming ➤ use functions for different operations -character math , string etc. ➤ create user defined functions ➤ apply concepts of string slicing in programmi	MC approach	Describe Learning Disabilities Explain the application of learning principles	physical education Illustrate fundamental body movements and their basic patterns Learn about the Axis and Planes and their application with body movements
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						➤ ng use different inbuilt functions in string programming ➤ Define lists ➤ Declare lists and nested lists ➤ Apply lists based functions in programs			
Nov	1. Poem: Childhood Learning Outcome Each student will be able to -identify poetic devices -comment on the theme and meaning of the poem -read the poem with proper tone and rhythm -enlist at least 3-4 characteristics that establish the difference between children and adults -filter value points from the text to	Topic: Properties of Bulk Matter Subtopics: *Difference between stress and strain, types of stress and strain *Elastic behaviour, stress strain relationship *Hooke's Law, three moduli of elasticity *Pressure due a liquid column, Pascal's Law and its application, effect gravity on liquid pressure *Viscosity, stokes Law, terminal velocity, streamline and turbulent flow.	Topic: Permutation and Combination Subtopics: * Introduction *Fundamental Principle of counting *Permutation when all the objects are/are not distinct. *Combination Learning Outcomes Each child will be able to: *state the	Topic: Organic Chemistry : Some Basic Principles And Techniques Subtopics: Introduction to organic compounds, Nature of Carbon Types of Structures and representations Classification Nomenclature Isomerism-structural & stereoisomerism Fundamental concepts in organic reaction mechanism	Topic: Breathing and Exchange of gases Subtopics: - Respiratory organs and human respiratory system - Mechanism of breathing and respiratory volumes and capacities - Exchange of gases -Transport of gases - Regulation of respiration and	• Dictionary: introduction, accessing items in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item), traversing a dictionary, built-in functions: len(), dict(), keys(), values(), items(), get(), update(), del,	CORRELATION Meaning and its properties, scattered diagram, measures of correlation- Karl Pearson's Method and Spearman's Rank Correlation method (Non repeated and repeated ranks)	UNIT-7 Human Memory Nature of memory; Information Processing Approach: The Stage Model, Memory Systems: Sensory, Short-term and Long-term memories. Levels of processing; Types of	Unit IX Psychology & Sports Definition & Importance of Psychology in Physical Education & Sports Developmental Characteristics at Different Stages of Development Adolescent Problems & Their Management

answer the questions asked <u>2. Prose: The Adventure</u> Learning Outcome Each student will be able to -analyse the theme and write their interpretation of the title. -talk about the catastrophe theory and quantum physics -highlight at least 2-3 qualities of the central character -filter value points from the text to answer the questions asked -add at least 3-4 new words in his/her vocabulary <u>3. Prose: Birth</u> Learning Outcome Each student will be able to -reflect on the title and theme -enlist the characteristics of the protagonist -comment on the	*Bernoulli's theorem and its application *Surface energy, surface tension *Excess pressure, liquid drop and soap bubble Learning Outcomes *differentiate between stress and pressure, stress and strain and their types. *graphically represent the variation of stress with strain *state the following: Hooke's law & Pascal's law *correlate the same with day to day observation *derive expressions for liquid pressure. *explain the principles of dynamic uplift, terminal velocity, streamline and turbulent flow. *infer the spherical shapes of drops and bubbles is due to surface tension *explain the origin of surface tension on the basis of molecular theory *define excess pressure and derive expression for excess pressure due to liquid drop and soap	fundamental principle of Addition / Multiplication * factorial notation *define permutation. *find the number of permutations of n different objects with or without repetition. *define combination. *differentiate btw Permutation and Combination Topic: Probability Sub Topics: 1. Introduction 2. Random Experiments 3. Event- simple and compound events 4. Algebra of events 5. Mutually exclusive, exhaustive	(homolytic & heterolytic fission, intermediate formation Inductive effect Learning Outcomes Each student will be able to: Explain the nature of carbon and formation of organic compounds. Give reasons for the tetravalency of carbon Differentiate between organic and inorganic compounds. Interpret the types of bonds in a molecule based on hybridization. Draw the structures of organic molecules in various ways (complete, condensed). Classify the organic compounds using flow diagram. List some characteristic features of pi bonds. Explain how bond length and bond strength depends on the size of the hybrid	disorders of respiratory system Topic: Body Fluids and Circulation Subtopics -Blood and Blood groups -Coagulation of blood, Lymph and Circulatory pathways -Human circulatory system -Cardiac cycle -Electrocardiograph -Double circulation - Regulation of cardiac activity and disorders of circulatory system Topic: Excretory Products and their elimination Subtopics: -Modes of excretion and Human excretory system -Urine formation - Function of tubules - Mechanism of concentration of filtrate -Regulation	clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy(); suggested programs : count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them Unit III: Society, Law and Ethics ● Digital Footprints ● Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes ● Data protection: Intellectual Property Right	Learning Outcomes Each student will be able to: ● Define Correlation ● Understand the nature of relationship between two variables ● Calculate the different measures of correlation ● Analyse the degree and direction of the relationships. INDEX NUMBERS:- Meaning, types, WPI, CPI, IIP, uses of index numbers,	Long-term memory, representation and organization in memory; Memory as a constructive process; Nature and causes of forgetting; Enhancing memory Learning Outcomes Each Student will be able to: Describe the concept of Memory. Understand the Information Processing Approach List down the memory systems. Describe the levels of processing model of Memory. List down types of Long	Team Cohesion and Sports Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness Learning Outcomes Each student will be able to: Identify the role of Psychology in Physical Education and Sports Differentiate characteristics of growth and development at different stages Explain the issues related to adolescent behavior and Team Cohesion in Sports
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	topics: - maintaining balance between personal and professional life -role and position of doctors in the society -critically appreciate the diction and style of the writer	bubble	events Learning Outcomes Each child will be able to: *recall the concept of probability *recall the definition of random experiment, sample space *write the sample space of a Random experiment *list the various kinds of events : mutually exclusive, exhaustive events *prove events to be mutually Exclusive or exhaustive *state and apply the formulae for probability of an event *state the Addition formulae of probability Topic: Binomial Theorem Sub Topics *expansion of	orbitals. Draw condensed structures and bond line structures of organic molecules. Name aliphatic, aromatic and polyfunctional compounds as per IUPAC nomenclature. Explain the types of structural and stereo isomerism and draw the structures of the isomers for a given molecular formula. Differentiate between homolytic and heterolytic fission. Draw and explain the structure of reaction intermediates & explain their stability orders. Define and differentiate between Inductive effect and Electromeric effect.	of kidney function and micturition - Role of other organs of excretion - Disorders of excretory system Learning Outcomes Each student will be able to: -name the respiratory organs of fish, earthworm, insects and mammals -explain human respiratory system -draw respiratory system of human beings -list the steps involved in respiration -describe exchange and transport of gases -draw oxygen dissociation curve -name any two disorders of respiratory system -differentiate between inspiration and expiration -mention the	(copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source softwares and licensing (Creative Commons, GPL and Apache) ● Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cyber crime ● Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying. ● Safely accessing web sites: malware, viruses, trojans, adware	Inflation and index numbers, Simple Aggregative method Learning Outcomes: Each student will be able to: ● Underst and the meaning of the term index numbers ● Familiarise with the use of widely used index numbers ● Calculate an index numbers ● Appreciate its limitations	term memory State the organizational structure of the contents of long term memory. Discuss the concept of reproduction of stored material and causes of forgetting. Explain the application of the concepts learned in enhancing memory.	Correlate the psychological concepts with the sports and athlete specific situations
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the binomial expression $(a+b)^n$ using binomial theorem for positive integral indices.
* pascal's triangle

Learning Outcomes

Each child will be able to:
*expand the binomial expression $(a+b)^n$ using binomial theorem for positive integral indices.
*use pascal's triangle in writing the coefficients in the expansion.

different components of human blood and state their functions -
list the four types of blood groups and their donor compatibility -
explain why the wound does not continue to bleed for a long time
-state the function of the lymphatic system. -
differentiate between open and closed circulatory system. -draw and explain the structure and function of human heart -state the significance of double circulation
-explain why terrestrial animals are generally either ureotelic or uricotelic but not ammonotelic. -
name the parts of human excretory system -draw labelled diagram

- E-waste management: proper disposal of used electronic gadgets
- Indian Information Technology Act (IT Act)
- Technology & Society: Gender and disability issues while teaching and using computers

Learning Outcomes

Each child will be able to-
➤ Declare strings and use strings in programming
➤ Apply string functions in programming
➤ use functions for different operations-character math , string etc.
➤ create user



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					of human excretory system -explain the structure of kidney and nephron with the help of diagrams - describe the process of urine formation -state the function of proximal convoluted tubule, Henle's loop, distal convoluted tubule and collecting duct - explain the countercurrent mechanism - describe the regulation of kidney function - state the role of lungs, liver and skin in the elimination of wastes from the body -mention any two disorders of the excretory system.	defined functions ➤ apply concepts of string slicing in programming ➤ use different inbuilt functions in string programming ➤ Define lists ➤ Declare lists and nested lists ➤ Apply lists based functions in programs			
Dec	1. Prose: Silk Road Learning Outcome Each student will be	Topic: Oscillation and Waves Subtopics:	Topic: Sequence and Series Subtopics:	Topic: Organic Chemistry : Some Basic	Topic: Locomotion and Movement Subtopics:	Each child will be able to- 1)Distinguish	<u>FORMS OF MARKET AND PRICE DETERMIN</u>	UNIT-8 Thinking Nature of	Unit X Training and Doping in Sports

able to -enumerate the benefits of writing a travelogue -comment on the importance of the silk road/ route and its history -compare and contrast the weather conditions and topographical features of northern India with the other parts of the country in the form of a report 2. Poem: Father to Son Learning Outcome Each student will be able to -identify the theme of the poem and comment on the same -paraphrase the poetic lines -filter value points from the text to answer the questions asked -prepare a greeting card for his/her father expressing their feelings toward them	*Periodic motion and their representation in the form of periodic functions, Simple harmonic motion, and its equation *Energy in simple harmonic motion, derivation of expression for time period of simple pendulum, mass spring system *Resonance *Displacement relation for a progressive wave *Super position of waves, stationary wave in string and organ pipe fundamental mode and harmonics *Related conceptual and numerical questions Learning Outcomes *Differentiate between SHM and periodic motion. *Mathematically derive equations for SHM energy in SHM, apply the same to oscillation of spring, pendulum and sonometer. *Differentiate between mechanical waves and electromagnetic waves, progressive and	* A.M between two numbers a & b * G.P * nth term of a G.P * Sum to n terms of G.P * Sum of infinite G.P Learning Outcomes Each child will be able to: *recall the definition of sequence & series *define A.M between two numbers a & b *define a G.P *find the nth term of a G.P Topic: Matrices Sub Topics: 1. Matrix-Introduction 2. Types of matrices 3. Operations on matrices 4. Transpose of a matrix 5. Symmetric and Skew	Principles And Techniques Subtopics: Inductive effect & Electromeric effect, Resonance effect and hyperconjugation Topic: Hydrocarbons Subtopics: Classification of hydrocarbons- Saturated and unsaturated. Isomerism Alkanes, Alkenes and Alkynes (preparation, physical & chemical properties) Name reactions – Wurtz reaction, Decarboxylation, Kolbe reaction. Conformations- Sawhorse and Newmann projection formulae of Ethane Aromatic hydrocarbons (preparation, physical and chemical properties with mechanisms, structure and uses of benzene)	-Types of movement and Muscle -Structure of contractile proteins - Mechanism of muscle contraction - Skeletal system - Joints and disorders of muscular and skeletal system Topic: Neural Control and Coordination Subtopics: - Human neural system -Neuron -Generation and conduction of nerve impulse - Transmission of impulse -Central neural system Topic: Chemical Coordination and Integration Subtopics: - Hypothalamus - The Pituitary Gland -The Pineal and	between raw and processed data Illustrate the need for data collection, storage, and Processing. Justify the limitations of using a file-based approach for the storage and retrieval of data 2)describe the concept of relational data model Outline the three important properties of a relation Identify and explain the features of a relational data model 3) Define what is a Database management System and how is it different from	ATION Perfect Competition-Features, determination of market equilibrium and effects of shifts in demand and supply (Short run only) Simple Applications of demand and supply, Price ceiling and floor price. Learning Outcomes: Each student will be able to: • Understand the concept of different types of market structure • Illustrate the	thinking; The processes of Thinking Problem Solving, Reasoning Decision making Nature and Process of creative thinking Developing creative thinking; Thought and Language Development of language and language use Learning Outcomes • describe the nature of thinking and reasoning, • explain cognitive processes involved in problem solving and decision-making, • explain the nature and process of	Concept and Principles of Sports Training Training Load: Over Load, Adaptation, and Recovery Warming-up & Limbering Down – Types, Method & Importance Concept of Skill, Technique, Tactics & Strategies Concept of Doping and its disadvantages Learning Outcomes Each student will be able to: Understand the concept and principles of sports training Summarise training load and its concept
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		stationary waves. *Write equation for SHM and solve numerical. *Explain the phenomenon of stationary waves in string, resonance tube as an application of principle of superposition of waves and its uses. *Diagrammatically represent the harmonics produced in a stretched string and in organ pipes. *Apply the concepts and formulae logically to solve related numerical.	symmetric matrices. Learning Outcomes Each child will be able to: *identify a ij element of a matrix *apply the basic operations of +, - *define various types of matrices *solve the problem of equality of matrices. *define transpose of a matrix *define symmetric and skew symmetric matrices. *find the transpose of a matrix *differentiate between symmetric and skew symmetric matrices. *define inverse of a matrix.	Learning Outcomes Each student will be able to: Explain hyperconjugation and resonance effects and draw resonating structures of the given molecule Solve reasoning questions on above effects Hydrocarbons Discuss classification and IUPAC nomenclature of hydrocarbons. Draw structures of isomers for a given molecular formula. Explain the preparation methods, properties of ethane, ethene, ethyne and benzene and their respective reactions. Draw the Sawhorse and Newmann projections for ethane and discuss their stabilities. Comment on the name reactions (Wurtz, Kolbe and Decarboxylation,	Thyroid gland -Thymus and adrenal gland - Pancreas -Testis and ovary - Hormones of heart, kidney and gastrointestinal tract -Mechanism of hormone action Learning Outcomes Each student will be able to: - mention the structure and function of skeletal muscle -explain the structure of contractile proteins -describe the sliding filament theory of muscle contraction. - explain the nervous system in humans. -describe the structure and types of neurons - explain the generation, conduction and transmission of nerve impulse - differentiate	RDBMS ? Recognize the key terms in DBMS like Database schema, query, constraints, etc. 4) Define the different types of keys in relational database. 5) Identify various types of keys from database . 6) Explain the need of SQL Explain and identify the data types and constraints used in MySQL 7) Identify and write MySQL queries to create, remove, and alter databases and tables	behaviour of revenue in perfect competition using schedule and diagrams - Present the dynamics of changes in the equilibrium price and quantity, diagrammatically - Apply the concept of MSP and rationing	creative thinking and ways of enhancing it, • explain the relationship between language and thought, • describe the process of language development and its use	Understand the concept of warming up & limbering down in sports training and their types, method & importance Acquire the ability to differentiate between the skill, technique, tactics & strategies in sports training Interpret the concept of doping
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				reaction). Explain the hybridization in the structure of benzene. Explain the mechanism of electrophilic substitution reactions of benzene	between CNS and PNS -name the three major parts of brain and explain their functions -list the various endocrine glands. -describe the location and structure of any two endocrine glands, the hormones secreted by them, their functions in the human body and various disorders related to them. -explain role of hormones of heart, kidney and gastrointestinal tract -describe mechanism of hormone action	8)Identify and write MySQL queries for inserting new records in a table updating and deleting data 9) Identify and write MySQL queries for retrieving data using different clauses like DISTINCT, WHERE, GROUP BY etc. Formulate the mean, median, mode, range, and standard deviation of given data. Understanding how to use single row, multi row functions and group records 9) Each child will be able to			
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						write queries based on multiple tables in SQL- JOIN and Cartesian product Type Each child will be able to identify: 1) Syntax Errors 2) Exceptions 3) Built-in Exceptions 4) Finally Clause Each child will be able to write codes to: 1) Raise Exceptions 2) Handle/ Catch Exceptions 3) Writing Try Blocks			
Jan	1. Prose: The Tale of Melon City Learning Outcome Each student will be able to -identify the satirical features of the poem -identify poetic devices -comment on the theme	Topic: Wave Optics: Sub Topics: *Wave front and Huygen's principle * Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only) Learning Outcomes	Topic: Determinants Sub Topics: 1. Determinant-Introduction 2. Area of triangle 3. Adjoint and inverse of a matrix 4. Applications	Topic: Hydrocarbons Subtopics Directive influence of substituents in monosubstituted benzene compounds Carcinogenicity and toxicity. Interconversions Topic:	Topic: Reproductive Health (Class XII Syllabus) Subtopics: - Reproductive health-problems and strategies -Population	PROJECT WORK REVISION Learning Outcomes Each child will be able to clarify their doubts =>in Python and CSO =>recapitulate the important	INDIA ON THE EVE OF INDEPENDENCE A brief introduction of Indian economy on the eve of independen	UNIT 1(Class XII Syllabus) VARIATIONS IN PSYCHOLOGICAL ATTRIBUTES Individual Differences in Human Functioning Assessment	Revision for End Term Examination

	-paraphrase the lines of the poem -read the poem with proper tone and rhythm -enlist at least 3-4 characteristics of the king -filter value points from the text to answer the questions asked -add at least 3-4 new words in his/her vocabulary	*Draw the reflecting and refracting wavefronts using Huygen's principle. *Differentiate between coherent and incoherent sources. *Infer the conditions for sustained interference. *Draw the intensity versus path difference/phase difference graph for Young's Double Slit experiment. *Mathematically derive equation for path difference and phase difference for constructive and destructive interference.	of Determinants and matrices Learning Outcomes Each child will be able to: *define inverse of a matrix. *Perceive the concept of Determinants, minors, cofactors, adjoint and inverse. * find the area of triangle * solve the system of equations using matrices	Chemical Equilibrium SubTopics : Equilibrium in physical and chemical processes, nature and characteristics of equilibria. Law of mass action & Law of chemical equilibrium Relation between K_p and K_c K_c – characteristics, expression, units, Related numerical Types of equilibria- Homogeneous and heterogeneous equilibria Factors affecting K_c Le Chatliers principle & its applications. Ionic equilibrium in solutions- Strong & weak electrolytes, ionic equilibria, ionization of weak electrolytes(Ostwald's Dilution Law) Acid base concepts. Strength of acids & bases- ionization constants.	explosion and birth control - Medical termination of pregnancy - Sexually transmitted diseases -Infertility Learning Outcomes Each student will be able to: -mention two problems that are taken care of by Reproductive and Child Health Care Programme -enumerate the various methods of birth control with one example of each -list any four characteristics of an ideal contraceptive -state the various types of sexually transmitted diseases giving one example of each -mention any	concepts, laws and rules. =>apply the same to answer related questions. =>apply the same to make project >solve practice papers	ce with respect to, agriculture, industries, foreign trade, occupational structure, demography . Learning Outcomes: Each student will be able to: • Explain the features of Indian agriculture on the eve of independence. • Define 'systematic de-industrialisation' • Explain the trends of occupational structure, demographic profile, foreign	of Psychological Attributes Intelligence, Individual Differences in Intelligence Culture & Intelligence Emotional Intelligence Special abilities Learning Outcomes Explain psychological attributes on which people differ from each other State the different methods that are used to assess psychological attributes Different between the theories of intelligence proposed by various psychologists Discuss variations of	
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				Ionic product of water K_w. pH and pOH- concept and numerical. Solubility equilibria of sparingly soluble salts (K_{sp}) brief idea & common ion effect, Applications of solubility product K_{sp} and common ion effect. Buffer solutions & buffer action Learning Outcomes Hydrocarbons: Each student will be able to: Explain Huckel's rule for aromaticity. Predict the directive influence of substituents in monosubstituted benzene. Chemical Equilibrium Explain the dynamic nature of physical and chemical equilibrium. Describe the characteristics of chemical equilibria.	three causes of infertility -suggest and explain three Assisted Reproductive Technologies to assist an infertile couple.		trade on the eve of indepe ndence .	intelligence, learn how psychologists assess intelligence to identify mentally challenged and gifted individuals Difference between intelligence and aptitude REVISION	
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State and explain law of mass action and chemical equilibrium.
Write an expression for equilibrium constant.
Derive the relation between K_p and K_c , K_c and Q .
Explain the characteristics, expression, units, applications of K .
Discuss the types of equilibria and write expressions for K_c .
State Le chatlier's Principle and solve problems related to it.
Discuss concept of ionic equilibrium in solution-Strong and weak electrolytes.
Derive Ostwald's Law.
Distinguish between strong and weak acids and bases.
Discuss the term ionic product of water & solve numericals based on it.

Discuss salt

				hydrolysis. Justify solubility equilibria of sparingly soluble salts and calculate solubility product constant & its applications. Explain common ion effect & buffers. Apply common ion effect in qualitative analysis.					
Feb	<u>1. Revision of all the Short and Long Writing skills and Literature section Learning Outcome</u> Each student will be able to -recapitulate the themes of the lessons -recall the format and rules related to the writing skills and grammatical concepts -draft ads and posters -draft sample speech and debate -answer the HOTS questions from the prescribed lessons <u>2. Assessment of Listening and</u>	Revision for End Term Examination	REVISION	Revision and Exams	Revision for End Term Examination	Learning Outcomes	REVISION	Revision	Revision for End Term Examination

	<u>Speaking Skills</u> <u>Learning Outcome</u> Each student will be able to - listen carefully to the podcast -speak up confidently - use the language and vocabulary								
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