



TAGORE INTERNATIONAL SCHOOL
EAST OF KAILASH, NEW DELHI

Class XII
PARENT SYLLABUS 2024 -2025
SCIENCE

Month	English	Math	Physics	Chemistry	Biology	Computer science	Economics	Psychology	P.Ed.
March	<p>Long Writing Skill: Job Application Learning Outcomes: Each student will be able to state situations when they would draft a job application use words and phrases, effective openings and</p>	<p>Topic: Matrices and Determinants Revision (4 days) Sub Topic: *Symmetric and Skew Symmetric matrices *Adjoint and inverse of a matrix *Solving system of equations using matrix method Topic:</p>	<p>Topic: Wave Optics (3 classes) *Proof of laws of reflection and refraction using Huygens principle (2) *Diffraction due to a single slit, width of central maxima (qualitative treatment only) (1) Experiments (9 classes) * To determine resistivity of two / three wires by plotting a graph for potential difference versus current. * To find resistance of a given wire /</p>	<p>Topic: SOLUTIONS (3 classes) Subtopics: Types of solution, Expression of concentration of solutions of solids in liquids and related numerical (2) Solubility of solids and gases in liquids (1) Practical Experiments 9 classes (Salt Analysis)</p>	<p>Topic: Sexual Reproduction in Flowering Plants Subtopics *Pre-fertilization: structures and events *Post-fertilization: structures and events *Apomixis and Polyembryony Topic: Human Reproduction Subtopics: *The male and female reproductive</p>	<p>UNIT 3: (12 periods) Database concepts: introduction to database concepts and its need Relational data model: relation, attribute, tuple, domain, degree, cardinality, keys (candidate key, primary key, alternate</p>	<p>Macroeconomics Unit 2 Money and Banking *Meaning and functions of money *Money Supply *Credit Creation *Central Bank and its functions Learning Outcomes: The learners will be able to: 1. Define and</p>	<p>UNIT 1: VARIATIONS IN PSYCHOLOGICAL ATTRIBUTES Individual Differences in Human Functioning Assessment of Psychological Attributes Intelligence Theories of intelligence</p>	<p>Unit I - Management of Sporting Events Functions of Sports Events Management (Planning, Organising, Staffing, Directing & Controlling) Various</p>

<p>closing of the letter draft a cover letter and a curriculum vitae</p> <p>Short Writing Skill: Notice Writing</p> <p>Each student will be able to state situations when they would draft a notice supply inputs on the format, style and tone of a notice</p>	<p>Continuity and Differentiability</p> <p>Sub Topic: *Chain Rule, product Rule and Quotient Rule – Recapitulation (1 day)</p> <p>*Implicit and Inverse trigonometric function Derivatives (3 days)</p> <p>*Logarithmic Differentiation (4 days) Watch the link given below for the first three minutes (Implicit functions) - (Flipped Learning) https://www.youtube.com/watch?v=vP_c</p>	<p>standard resistor using a metre bridge. * To find the frequency of AC mains with a sonometer. * To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.</p> <p>Learning Outcomes: Each student will be able to: *Draw the reflected and refracted wavefront using Huygens Principle. *Mathematically prove the laws of reflection and refraction. *Sketch graph between intensity and fringe width for diffraction and interference of light in YDSE.</p>	<p>To determine the given salt sample for an anion and a cation (Ammonium sulphate and Ammonium phosphate).</p> <p>To determine the given salt sample for an anion and a cation (Lead acetate and Lead nitrate)</p> <p>Life Skill: Problem solving</p> <p>Value: Fostering Respect For Differences</p> <p>Learning Outcomes: Each student will be able to: *Describe the formation of different types of solutions.</p>	<p>system *Gametogenesis *Menstrual cycle, *Fertilization and *Implantation *Pregnancy and embryonic development, *Parturition and *Lactation</p> <p>Topic: Reproductive Health</p> <p>Subtopics: *Reproductive health-problems and strategies, *Population explosion and birth control *Medical termination of pregnancy, *Sexually transmitted diseases and Infertility</p> <p>Life Skill: Interpersonal Relationship</p>	<p>key, foreign key) Structured Query Language: Introduction, Data Definition Language and Data Manipulation Language, data type (char(n), varchar(n), int, float, date), constraints (not null, unique, primary key), create database, use database, show databases, drop database, show tables, create table, describe table, alter</p>	<p>understand the concept of money 2.Classify various components of Money Supply- M1 3.Understand and analyse the working of money(deposit) multiplier and its role in creating money supply 4.Discuss the functions of Central Bank</p> <p>Unit 4 Government Budget *Government Budget-meaning, objectives and components *Classification of receipts</p>	<p>Individual Differences in Intelligence Interplay of Nature and Nurture Variations in Intelligence Types of Intelligence Tests Culture & Intelligence Emotional Intelligence Special abilities Creativity</p> <p>Learning Outcomes: state psychological attributes on which people differ from each other Explain different</p>	<p>Committees & their Responsibilities (pre; during & post) Fixtures and its Procedures – Knock-Out (Bye & Seeding) & League (Staircase, Cyclic & Tabular method) and Combination tournaments. Intramurals and Extramurals - Meaning, Objectives & Its</p>
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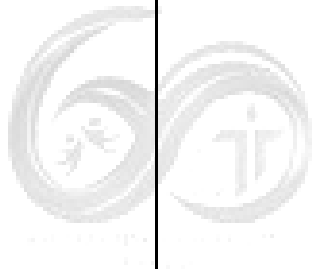
<p>draft a notice answering the questions what, when, where and how express in writing, their views through a notice s.</p> <p>Literature- Flamingo:</p> <p>Prose: The Last Lesson</p> <p>Learning Outcomes: Each student will be able to</p> <p>list down the effects of the Franco -</p>	<p>MPqxxt&t=54s</p> <p>Learning Outcomes: Each student will be able to:</p> <p>*find the inverse and adjoint of a Matrix, calculate the area of the triangle.</p> <p>*solve the given system of equations upto 3 variables</p> <p>*recall the chain rule, quotient and product rule</p> <p>*find the derivative of implicit function and inverse Trigonometric functions</p> <p>*list the properties of logarithms</p>			<p>*Express concentration of different solutions in terms of normality, molarity, molality, mole fraction.</p> <p>*Solve numerical related to molarity, molality, mole fraction.</p> <p>*Explain the factors (nature, temperature & pressure) effecting solubility of solids and gases in liquids.</p>	<p>Value: Dependability</p> <p>Gender Sensitivity: Gender Equality</p> <p>Health and wellness: Health problems caused due to pollen</p> <p>Learning Outcomes: Each student will be able to-</p> <p>*mention three types of pollination, the agents needed and its significance.</p> <p>*differentiate between autogamy and geitonogamy (2 points)</p> <p>*compare wind pollinated and insect pollinated flowers (2 points)</p> <p>*describe double fertilization.</p> <p>*state three</p>	<p>table (add and remove an attribute, add and remove primary key), drop table, insert, delete, select, operators (mathematical, relational and logical), aliasing, distinct clause, where clause, in, between, order by, meaning of null, is null, is not null, like, update command, delete command, aggregate functions (max, min, avg, sum, count),</p>	<p>*Classification of expenditure</p> <p>*Types of Budget-Balanced & Unbalanced</p> <p>*Measures of Budget Deficit</p> <p>Learning Outcomes: The learners would be able to:</p> <ol style="list-style-type: none"> 1. Define and discuss the objectives of Government Budget 2. Familiarise with the components and structure of Government Budget 3. Distinguish between Revenue receipts and capital 	<p>methods that are used to assess psychological attributes</p> <p>explain what constitutes intelligent behaviour</p> <p>State the features of intellectual deficiency and giftedness</p> <p>differentiate between intelligence and aptitude</p>	<p>Significance Community Sports program (Sports Day, Health Run, Run for Fun, Run for Specific Cause & Run for Unity)</p> <p>Learning Outcomes: Each student will be able to: Explain types of tournaments and draw Fixtures – Knock-Out</p>
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<p>Prussian war on the life and people of Alsace and Lorraine</p> <p>list down the importance of ones mother tongue</p> <p>speak about procrastination and its drawbacks</p> <p>Justify the title</p> <p>Write character sketches</p> <p>Poetry: My Mother at Sixty-six by Kamala Das</p> <p>Learning Outcomes: list down the</p>	<p>*perceive the concept of Logarithmic differentiation & parametric function</p>				<p>outbreeding devices that flowering plants have developed</p> <p>*explain artificial hybridization distinguish between albuminous and non-albuminous seeds (2 points)</p> <p>*explain apomixis and polyembryony</p> <p>*name the four main parts of human male and female reproductive systems.</p> <p>*explain the function of four main parts of human male and female reproductive system</p> <p>*draw labelled diagrams of human male and</p>	<p>group by, having clause, joins: Cartesian product on two tables, equi-join and natural join</p> <p>Values:- Smart Working but with ethics</p> <p>Learning Outcomes: Each child will be able to- =>Distinguish between raw and processed data Illustrate the need for data collection, storage, and processing. Justify the limitations of using a file-based</p>	<p>receipts</p> <p>4. Differentiate between Revenue Expenditure and Capital Expenditure</p> <p>5. Highlight the impact of Revenue Deficit, Fiscal Deficit and primary deficit on the economy</p>		<p>(Bye & Seeding) & League (Staircase & Cyclic) Know the different types of committees for organizing tournaments (pre; during & post)</p>
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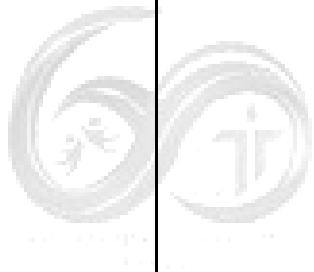
	<p>reasons as to why the youth today must take care of their elderly parents speak about the theme and message in the poem annotate the lines and pick out poetic devices</p>				<p>female reproductive systems</p> <ul style="list-style-type: none"> *compare spermatogenesis and oogenesis (2 points) *mention one difference between spermiogenesis and spermiation *illustrate spermatogenesis and oogenesis with diagrams *explain reproductive cycle in human female *differentiate between major structural changes in the human ovary during follicular and luteal phase of menstrual cycle (2 points) 	<p>approach for the storage and retrieval of data</p> <p>=>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</p> <p>=> Define what is a Database management System and how is it different from RDBMS .</p> <p>=> Recognize the key</p>			
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					<p>*describe the fertilization and placentation in humans</p> <p>*enumerate the steps of development of embryo</p> <p>*explain the process of parturition and lactation</p> <p>*mention two problems that are taken care of by Reproductive and Child Health Care Programme</p> <p>*enumerate any three methods of birth control with one example of each</p> <p>*list any three characteristics of an ideal contraceptive</p> <p>*state two main types of sexually transmitted diseases giving</p>	<p>terms in DBMS like Database schema, query, constraints, etc.</p> <p>=>Define and identify the different types of keys in relational database</p> <p>=>Explain the need of SQL</p> <p>Explain and identify the data types and constraints used in MySQL</p> <p>Identify and write MySQL queries to create, remove, and alter</p>			
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					<p>one example of each</p> <ul style="list-style-type: none"> *mention any three causes of infertility *suggest and explain three Assisted Reproductive Technologies to assist an infertile couple. 	<p>databases and tables</p> <p>=>Identify and write MySQL queries for inserting new records in a table updating and deleting data</p> <p>=> 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</p>			
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deviation of given data.
Understanding how to use single row, multi row functions and group records

=>
Understanding how to work with multiple tables in SQL
Writing SQL queries using two relations using both JOIN and Cartesian product

<p>April</p>	<p>Long Writing Skills:</p> <p>Article Writing</p> <p>Learning Outcomes:</p> <p>Each student will be able to</p> <p>generate ideas and organize them in groups</p> <p>write an article as per the format with appropriate expressions and content.</p> <p>use appropriate phrase and expression</p>	<p>Topic: Continuity and Differentiability</p> <p>Sub Topic: Logarithmic Differentiation (3 days)</p> <p>*Parametric Differentiation (2 day)</p> <p>*Higher order Derivatives (2 days)</p> <p>*Continuity of a function (4 days)</p> <p>*Differentiability (2 day)</p> <p>Assignment (4 days)</p> <p>Students will be asked to read Derivatives of functions in</p>	<p>Topic: Electric Charges and Fields (15 classes)</p> <p>* Electric Charges, Conservation of charge, Coulomb's law-force between two-point charges, forces between multiple charges.</p> <p>*Superposition principle and continuous charge distribution.</p> <p>* Electric field, electric field due to a point charge.</p> <p>* Electric field lines, electric dipole, electric field due to a dipole.</p> <p>*Torque on a dipole in uniform electric field, Potential Energy of a dipole in an external electric field.</p> <p>*Electric Flux, Gauss's Theorem, Applications of Gauss's Theorem (field due to infinitely long straight charged wire and</p>	<p>Topic: Solutions (11 classes)</p> <p>Subtopics:</p> <p>Applications of Henry's law Solid solutions (Raoult's law), Deviations from Raoult's law - Ideal, non-ideal solutions (+ve, -ve deviations), Azeotropes. Colligative properties- relative lowering of Vapour pressure, elevation of BP, depression of freezing point, osmotic pressure Determination of molecular mass of solute using colligative properties. Numerical related to above concepts.</p>	<p>Topic: Principles of Inheritance and Variation</p> <p>Subtopics:</p> <p>*Mendel's Laws of Inheritance *Inheritance of One Gene *Test Cross *Incomplete Dominance *Codominance *Inheritance of Two Genes *Chromosomal theory of inheritance *Linkage and Recombination *Sex Determination *Mutation *Pedigree Analysis *Genetic disorders</p> <p>Experiential Learning- Experiments:</p> <p>*Preparation of a temporary mount</p>	<p>Class XI revision tour (2 days)</p> <p>Syntaxes- loops, if...else Revision Class XI- Functions Lists, Tuples, Dictionaries, Strings- functions and applications- File handling: Text Files- (5 days) open and close a file, read, write, and append to a file, standard input, output, and error streams, relative and absolute</p>	<p>Indian Economic Development</p> <p>Development Experience s (1947-1990) and Economic reforms since 1991</p> <p>*Introduction to the state of Indian Economy on the eve of independence *Indian economic System and Common goals of Five Year Plans *Features, Problems and Policies of agriculture(Technical and institutional reforms),</p>	<p>Unit 2: SELF AND PERSONALITY</p> <p>Concept of self</p> <p>Cognitive and behavioral aspects of self</p> <p>Culture and self</p> <p>Concept of personality</p> <p>Major approaches to personality</p> <p>Learning Outcomes:</p> <p>describe the concept of self State the techniques</p>	<p>Unit II - Children & Women in Sports</p> <p>Exercise guidelines of WHO for different age groups</p> <p>Common Postural Deformities - Knock Knee; Bow Legs; Flat Foot; Round Shoulders; Lordosis, Kyphosis, and Scoliosis and their corrective measures</p> <p>Women participation in Sports –</p>
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<p>express themselves in the form of article writing</p> <p>Vistas:</p> <p>The Third Level</p> <p>Learning Outcomes: Speak about the concept of time and space Examine Jack Finney's word choices and speak about the text structure of the lesson Determine the meaning of words and phrases and use them in their own</p>	<p>parametric form and solve examples 34 to 37 - (Flipped Learning)</p> <p>Topic: Application of Derivatives</p> <p>Sub Topic: *Increasing Decreasing Function (3 Days) *Rate of change</p> <p>Students will be asked to read the examples based on rate of change (Flipped Learning)</p> <p>Learning Outcomes: Each student</p>	<p>plane sheet of charge) Topic: Electric Potential and Capacitance (10 classes) Subtopics: *Electric potential, potential difference, electric potential due to a point charge . *Electric potential due to a point charge, a dipole and system of charges; equipotential surfaces. *Electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field. Conductors and insulators *Dielectrics, Electric polarisation, Capacitors and Capacitance. Topic: Current Electricity (3 classes) *Electric current,</p>	<p>Concept of Abnormal molecular mass, Vant Hoff factor & related numerical.</p> <p>TOPIC: Haloalkanes and Haloarenes (13 classes) Sub topics: Classification, Nomenclature and isomerism Methods of preparation Physical and chemical properties- S_N2, S_N1 mechanisms, E2 and E1 mechanisms Stereochemical aspects of S_N mechanism (Chirality check activity) Chemical Properties of Haloarenes Synthesis,</p>	<p>to observe pollen germination *Pollen germination on stigma through a permanent slide or scanning electron micrograph *Flowers adapted to pollination by different agencies (wind, insects, birds) *Controlled pollination - emasculation, tagging and bagging. Life Skill: Problem solving</p> <p>Value: Concern for life</p> <p>Gender Sensitivity: Genes influence gender identity</p> <p>Health and wellness: Genetic disorders</p>	<p>paths. open() with open() close() read() readlines() readline()</p> <p>Binary Files- (13 days) Basic operations on a binary file: Open (filename – absolute or relative path, mode) / Close a binary file, Pickle Module – methods load and dump; Read, Write/Create , Search, Append and Update operations in a binary file.</p>	<p>industry (IPR 1956 and SSI)and foreign Trade *Features and appraisals of LPG policy. *Concepts of demonetisation and GST</p> <p>Learning Outcomes: The learners will be able to: 1. State the goals of India's Five Year Plans 2. Comprehend the development policies in different sectors such as agriculture, industry and foreign trade from 1950-1990</p>	<p>for self-regulation of behaviour</p> <p>explain the concept of personality</p> <p>differentiate between various approaches to the study of personality</p>	<p>Physical, Psychological, and social benefits</p> <p>Special consideration (Menarche & Menstrual Dysfunction)</p> <p>Female Athletes Triad (Osteoporosis, Amenorrhoea, Eating Disorders)</p> <p>Learning Outcomes: Each student will be able to:</p>
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<p>expression. Bring out the irony in the lesson Draft character sketches</p> <p>Flamingo: Prose: Lost Spring Learning Outcomes: speak about the causes leading to child labour</p> <p>identify the problem of child labour, consider the options, weigh the pros and cons of each option, and reach a decision/opinion/solution</p>	<p>will be able to:</p> <ul style="list-style-type: none"> *recall the properties of logarithms *differentiate the parametric form *find the higher order derivative of functions *recall the concept of limits *define a continuous function *apply the concept of continuity to check whether a function is continuous or not *identify the function to be *finding the intervals in which the function is 	<p>flow of electric charges in a metallic conductor. *Drift velocity, mobility.</p> <p>Learning Outcomes: *apply the formula for quantisation of charge to solve related numerical. *correlate conservation of charges to pair production. *apply Coulomb's Law to calculate electrostatic force between charges. * infer the equation of force due to multiple charges on the basis of superposition principle. *represent electric field lines due to different charge distribution. *compare the electric field lines due to a point charge with that of a dipole.</p>	<p>logical reasoning, application, analysis, comparison, identification and conversion-based problem questions Polyhalogenated compounds</p> <p>Art Integration Activity (Poster/ Comic strip) Topic: - Comparison of the reactivity of alkyl halides towards S_N2 and S_N1 mechanism. TOPIC: Alcohols, Phenols & Ethers (3) Sub topics: Classification, IUPAC nomenclature and Isomerism, Structure of functional group,</p>	<p>Learning Outcomes: Each student will be able to- *state three Mendel's laws of inheritance</p> <p>*give two reasons as to why Mendel chose pea plant for his experiments</p> <p>*draw the monohybrid cross and calculate the phenotypic ratio 3:1</p> <p>*explain and design a test cross</p> <p>*interpret the genotype and phenotype by analysing the monohybrid cross</p> <p>*compare dominance, co-dominance and incomplete</p>	<p>Learning Outcomes: Each child will – =>be able to find syntax /logical errors in if...else code/ loops =>be able to state output of Programmin g codes =>be able to solve computing problems based on Lists, Tuples and dictionaries =>be able to define functions =>create functions using Python Code, pass arguments and return values.</p>	<p>3.Highlight and discuss the merits and limitations of a regulated economy. 4.State the reasons behind the reform policies introduced in India in 1991 5. Comprehend the process of globalisation and its application in Indian economy 6.Critically analyse the impact of reform process in various sectors</p>	<p>Differentiate exercise guidelines for different stages of growth and development</p> <p>Describe different postural deformities and their cause and remedy</p> <p>Recognize the role and importance of sports participation of women in India</p> <p>Identify special considerations relate to menarche and</p>
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<p>write the character sketch of Saheb and Mukesh with the help of the STEAL characterization technique.</p> <p>frame a set of questions</p> <p>draft a notice</p> <p>Poetry:</p> <p>A Thing of Beauty</p> <p>Learning Outcomes:</p> <p>list down reasons why a thing of beauty is a joy forever</p>	<p>increasing or decreasing.</p> <p>*Find the rate of change of quantities</p> <p>Each student will be able to:</p> <p>*calculate the point of max/min in a given Interval</p> <p>*apply the first derivative test to find all points of local maxima/minima of a function</p> <p>*apply the second derivative test to examine local maxima or local minima</p> <p>*differentiate btw absolute max/min and local max/min</p>	<p>* graphically represent the variation of Electric field intensity due to a point charge and a dipole.</p> <p>*explain the origin of torque on an electric dipole due to external field and relate torque to real life situations where torque is applied.</p> <p>*state Gauss's law and express it mathematically.</p> <p>*apply Gauss's law to calculate the electric field intensity due to a straight wire, thin spherical shell, and plane sheet of charge.</p> <p>*draw graphs to show the variation of E and V with r for the above charge distribution</p> <p>*Differentiate between electric potential and potential difference.</p> <p>*Correlate</p>	<p>Methods of preparation of Alcohols</p> <p>Life Skills: Problem solving and Critical Thinking</p> <p>Values: Fostering Respect for Differences Responsibility and awareness</p> <p>Gender sensitivity: Group Discussion on 'Gender and society'.</p> <p>Health and wellness: Health, Diet and nutrition</p> <p>Learning Outcomes: Each student will be able to:</p> <p>Solutions</p> <p>*State and explain Henry's law and Raoult's law.</p> <p>*Compare</p>	<p>dominance giving one example of each</p> <p>*differentiate between monohybrid and dihybrid cross (2 points)</p> <p>*interpret the genotype and phenotype by analysing the dihybrid cross</p> <p>*draw the dihybrid cross and calculate the phenotypic ratio 9:3:3:1</p> <p>explain chromosomal theory of inheritance</p> <p>*justify that linkage and crossing over are alternatives of each other.</p> <p>* differentiate between male and female</p>	<p>=>be able to apply existing mathematical functions/ String functions in Python Programs.</p> <p>=>Recognize why files are needed and the purpose of storing data in a file</p> <p>=>Identify the different types of files limited to text, csv and binary files.</p> <p>=>Identify when to use files to solve a problems</p> <p>=>be able to read/write text files</p> <p>=>be able to read files letter by letter/ word by word/</p>				<p>menstrual dysfunction</p> <p>Know the signs and symptoms of female athletes' triad</p> <p>Unit III - Yoga as Preventive Measure for Lifestyle Disease</p> <p>Obesity: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Pavanmuktasana, Matsayasan</p>
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<p>read the poem using the correct rhyme and rhythm</p> <p>identify the poetic devices and explain how they are used in the poem</p> <p>annotate the lines of the poem with reference to the context</p> <p>Life Skills: coping with stress</p> <p>Values: finding peace within oneself.</p> <p>General Awareness: concept of</p>	<p>*apply the concept of max/min to solve word problems</p>	<p>Each student will be able to:</p>	<p>electrostatic potential energy with stability of dipole and work done.</p> <p>*List the points of difference between polar and nonpolar dielectric.</p> <p>*Deduce mathematical equation for capacitance of a parallel plate capacitor.</p> <p>*Compare the energy stored in a capacitor in series combination with that in parallel combination.</p> <p>*Draw Venn diagram to enumerate the points of difference between capacitance of a capacitor with dielectric between its plate and that with a conducting slab.</p> <p>*Apply formulae and concepts to solve</p>	<p>between Henry's and Raoult's law (2 points)</p> <p>*Distinguish between ideal and non-ideal solutions, non-ideal solutions with +ve and -ve deviations (4-5 points)</p> <p>*Explain the term colligative properties, derive their expressions and correlate these with molar masses of the solutes.</p> <p>*Define the terms: vapor pressure, boiling point, freezing point, osmosis and osmotic pressure.</p> <p>*Draw graphical representations related to Raoult's Law and colligative</p>	<p>heterogamety with an example of each.</p> <p>*describe the sex determination in human beings</p> <p>*explain sex determination in birds and honey bee.</p> <p>*illustrate genetic disorders with pedigree charts</p> <p>*compare Mendelian and chromosomal disorders (2 points)</p> <p>*explain any two Mendelian disorders with their crosses</p>	<p>sentence by sentence</p> <p>Each child will be able to–</p> <p>=>use pickle =>differentiate between pickling/unpickling</p> <p>=>differentiate between text and binary files</p> <p>=>Create Binary Files</p> <p>=>apply tell() and seek() for random pointer movement</p> <p>=>Insert and display records</p> <p>=>Search Records</p> <p>=>Modify records</p> <p>=>Delete Records</p>			<p>a, Halasana, Pachimottansana, Ardha – Matsyendrasana, Dhanurasana, Ushtrasana, Suryabhedhan pranayama</p> <p>Diabetes: Procedure, Benefits & Contraindications for Katichakrasana, Pavanmuktasana, Bhujangasana, Shalabhasana, Dhanurasana, Suptavajrasana, Paschimott</p>
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<p>time and travel</p> <p>Health and wellness: mental health</p> <p>Gender sensitivity: peace in the society</p>	<p>*define the concept of anti derivative</p> <p>*learn the integral of basic functions by the method of inspection</p> <p>*integrate by substitution</p> <p>*apply the method of substitution to</p> <p>*solve problems of integration by using</p> <p>trigonometric identities</p>	<p>related questions from sample papers, NCERT and board papers.</p> <p>*Explain why electrons drift through a conductor when p.d is applied.</p> <p>*Deduce the equation for drift velocity of electrons</p>	<p>properties.</p> <p>*Solve numerical related to laws, colligative properties and determination of molecular mass of the solute.</p> <p>*Explain abnormal colligative properties exhibited by some solutes in solutions.</p> <p>*Solve numerical related to Abnormal molecular mass, Vant Hoff factor.</p> <p>Haloalkanes and Haloarenes</p> <p>*Define and classify halogenated compounds.</p> <p>*Draw the isomers for a given molecular</p>						<p>anasana, Ardha-Mastendrasana, Mandukasana, Gomukasana, Yogmudra, Ushtrasana, Kapalabhati</p> <p>Asthma: Procedure, Benefits & Contraindications for Tadasana, Urdhwahastottansana, UttanMandukasana, Bhujangasana, Dhanurasana, Ushtrasana, Vakrasana, Kapalabhati, Gomukhasa</p>
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				<p>formulae and write IUPAC names.</p> <p>*Name haloalkanes and haloarenes according to the IUPAC system of nomenclature from their given structures.</p> <p>*Write equations for the preparation of haloalkanes and haloarenes.</p> <p>*Apply Luca's test to differentiate between different types of alcohols.</p> <p>*Distinguish between the following mechanisms- S_N2, S_N1 (4 points) and E2, E1 (2 points)</p> <p>*Use stereochemistry as a tool for understanding the reaction</p>					<p>na Matsyaasana, Anuloma-Viloma</p> <p>Hypertension: Procedure, Benefits & Contraindications for Tadasana, Katichakrasana, Uttanpadasana, Ardha Halasana, Sarala Matyasana, Gomukhasana, UttanMandukasana, Vakrasana, Bhujangasana, Makarasana, Shavasana, Nadishodha</p>
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				<p>mechanism. *Write equations for the chemical properties of haloalkanes and haloarenes. *Explain and write name reactions- Sandmeyer's, Wurtz-Fittig, Fittig reaction. *Correlate the structures of haloalkanes and haloarenes with various types of reactions (relative reactivity of haloalkanes towards nucleophilic substitution reactions). *Write equations for the chemical properties of haloalkanes- nucleophilic &</p>					<p>napranayam, Sitlipranayam Back pain/Arthritis: Procedure, Benefits & Contraindications of Tadasana, Urdhawahastottasana, Ardh-Chakrasana, Ushtrasana, Vakrasana, Sarala Maysyendrasana, Bhujangasana, Gomukhasana, Bhadrasana, Makarasana</p>
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				<p>electrophilic substitution reactions.</p> <p>*Predict the structure of the products in the chemical reactions of halogenated compounds.</p> <p>*Solve interconversions, reasoning and application-based questions related to haloalkanes and haloarenes.</p> <p>*Appreciate the applications of organo-metallic compounds.</p> <p>*Know and explain about uses of commercially important compounds poly-halogen compounds.</p> <p>*Highlight the environmental</p>					<p>a, NadiShodhana pranayama</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Know Lifestyle Diseases</p> <p>Describe the procedure, benefits & contraindications of the asanas</p>
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				<p>effects of poly-halogen compounds.</p> <p>Alcohols, Phenols and Ethers</p> <p>*Name alcohols, phenols and ethers according to IUPAC nomenclature.</p> <p>*Draw the isomers for a given molecular formulae.</p> <p>*Write equations for the preparation of alcohols from (i) alkenes (ii) aldehydes, ketones and carboxylic acids.</p>					
May	<p>Long Writing Skills:</p> <p>Letter to the Editor</p>	<p>Topic: Application of Derivatives</p> <p>Sub Topic: *Maxima and minima</p> <p>Introduction</p>	<p>Topic: Current Electricity (10 classes)</p> <p>*Relation between drift velocity and electric current.</p> <p>*Ohm's law,</p>	<p>Topic: Alcohols, Phenols & Ethers contd. (12 classes)</p> <p>Sub topics: Methods of</p>	<p>Topic: Principles of Inheritance and Variation (Contd.)</p> <p>Subtopics: *Genetic disorders</p>	<p>Introduction to csv files- CSV file: import csv module, open / close csv file, write</p>	<p>Macroeconomics Unit 1</p> <p>National Income and related aggregates</p>	<p>SELF AND PERSONALITY</p> <p>Personality assessment</p>	<p>Unit III - Yoga as Preventive Measure</p>

<p>Learning Outcomes: Each student will be able to</p> <p>state situations when they would write letters to the editor</p> <p>give inputs on the format and style and tone of a letter to the editor</p> <p>suggest expressions and phrases to draft a formal letter to the editor</p> <p>express their views through a letter to the editor of a</p>	<p>Learning Outcomes: Each student will be able to</p> <p>state situations when they would write letters to the editor</p> <p>give inputs on the format and style and tone of a letter to the editor</p> <p>suggest expressions and phrases to draft a formal letter to the editor</p> <p>express their views through a letter to the editor of a</p>	<p>(1 Day) Local Maxima Minima Absolute Maxima Minima First Derivative Test (2 Days) Second Derivative Test (4 Days) Read examples 34-37 (Flipped Learning) https://www.youtube.com/watch?v=1c-TGkgVUUM&t=320s Topic: Integration Sub Topic: Introduction- *Difference between integration and differentiation(1 day) *Integration by substitution (4</p>	<p>electrical resistance, V-I characteristics (linear and non-linear). *Electrical resistivity and conductivity. *Electrical energy and power. *Emf and potential difference and internal resistance of cell. *Cells in series and parallel. *Kirchhoff's laws and simple applications, Wheatstone bridge. Topic: Moving Charges and Magnetism (11 classes) (+3 extra classes) Subtopics: *Concept of magnetic field, Oersted's experiment. *Biot - Savart law and its applications. *Ampere's law and its applications to</p>	<p>preparation of Alcohols and Phenols including mechanisms Name reaction (Riemer Tiemann & Kolbe reaction) Acidity of aliphatic alcohols & phenol Physical and Chemical Properties and uses of ethyl alcohol and phenol (Electrophilic aromatic substitution reaction) Mechanisms Distinguish test for the different types of alcohols (1^o, 2^o, 3^o) Luca's and other tests Diethyl ether:</p>	<p>Topic: Molecular Basis of Inheritance Subtopics: *Structure of polynucleotide chain *Packaging of DNA helix *The Search for Genetic Material *The Genetic material is DNA *Replication *Transcription *Genetic code Experiential Learning- Experiments: *Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (grasshopper /mice) *T.S. of blastula through permanent slides (Mammalian) *Mendelian</p>	<p>into a csv file using writer(),write row(),writerows() and read from a csv file using reader() Learning Outcomes: <i>Each child will be able to–</i> =>Create CSV Files =>Differentiate between CSV files and Text Files =>read and write csv files =>apply following functions-Reader(),writer(),DictReader(),DictWriter(),next()</p>	<p>*Meaning of Macroeconomics and its basic concepts *Circular Flow of Income *Aggregates related to National Income *Real and Nominal GDP *GDP Deflator *GDP and welfare Learning Outcomes: The students will be able to: 1.Derive the expressions for various aggregates related to GDP 2. Understand and analyse</p>	<p>Learning outcome: describe the techniques for personality assessment</p> <p>Unit 4: PSYCHOLOGICAL DISORDERS</p> <p>Concepts of Abnormality</p> <p>Historical Background</p> <p>Classification of Psychological Disorders</p> <p>Factors Underlying Abnormal Behaviour</p> <p>Learning</p>	<p>for Lifestyle Disease (continued)</p> <p>Learning Outcomes: Each student will be able to: Know Lifestyle Diseases Describe the procedure, benefits & contraindications of the asanas</p> <p>Unit IV - Physical Education</p>
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<p>local or national daily dealing with civic or social problems</p> <p>Flamingo:</p> <p>Prose: Deep Water</p> <p>Learning Outcomes:</p> <p>Each student will be able to interpret the title</p> <p>identify at least 4-5 character traits of William Douglas</p> <p>list down the values of hard work and</p>	<p>days)</p> <p>*Integration of Trigonometric function (4 days)</p> <p>Students to watch the video to know how to apply substitution method to integrate (Flipped Learning) (https://www.youtube.com/watch?v=jrFio2siOaI)</p> <p>*Special Integrals (2 days)</p> <p>Teaching Point: Integration is an process of differentiation</p> <p>Learning Outcomes:</p> <p>Learning Outcomes:</p> <p>Learning Outcomes:</p>	<p>infinitely long straight wire.</p> <p>*Straight and toroidal solenoids (only qualitative treatment).</p> <p>*Force on a moving charge in uniform magnetic field.</p> <p>*Force on a current carrying conductor in a uniform magnetic field, between two parallel current-carrying conductors.</p> <p>*Torque experienced by a current loop in uniform magnetic field.</p> <p>*Moving coil galvanometer, its current sensitivity and conversion to ammeter and voltmeter.</p> <p>*CBSE Project Learning Outcomes:</p> <p>Each student will be able to</p> <p>*Relate drift velocity to electric current</p>	<p>Mechanisms related to the preparation (Williamson's synthesis) and chemical properties of ethers.</p> <p>Chemical properties of Aliphatic (Reaction with HI) and Aromatic ethers (Anisole) Synthesis, logical reasoning, application, analysis, comparison, identification and conversion-based questions</p> <p>TOPIC: Biomolecules (9 classes)</p> <p>Sub topics: Carbohydrates</p> <p>Classification D&L configuration, Epimers,</p>	<p>inheritance using seeds of different colour/sizes of any plant.</p> <p>Art Integration- 'Making DNA Helix Model'</p> <p>Students will create a DNA helix model using paper cut outs or different coloured straws.</p> <p>Life Skill:</p> <p>Problem solving</p> <p>Value:</p> <p>Concern for life</p> <p>Gender Sensitivity:</p> <p>Genes influence gender identity</p> <p>Health and wellness:</p> <p>Genetic disorders</p> <p>Learning Outcomes:</p> <p>Each student will be able to-</p>	<p>Unit III: Database - Management: Interface of python with an SQL database:</p> <p>connecting SQL with Python, performing insert, update, delete queries using cursor, display data by using fetchone(), fetchall(), rowcount, creating database connectivity application</p> <p>Learning Outcomes:</p> <p>Each child will be able to-</p> <p>=>Create MYSQL</p>	<p>the concepts of real GDP, nominal GDP, NFIA, depreciation, Final and intermediate goods, Factor and transfer income, Stock and flow variables, circular flow of income</p> <p>3. Solve numericals based on various methods of estimating National Income</p> <p>4. Critically analyse GDP as the index of welfare</p>	<p>Outcomes:</p> <p>Explain the basic issues in abnormal behavior and the criteria used to identify such behaviors</p> <p>State the factors which cause abnormal behavior</p>	<p>n & Sports for CWSN (Children with Special Needs - Divyang)</p> <p>Organizations promoting Disability Sports (Special Olympics; Paralympics; Deaflympics)</p> <p>Concept of Classification and Division in Sports</p> <p>Concept of</p>
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<p>determination</p> <p>create at least a set of three dialogues between Douglas and his instructor</p> <p>Poetry:</p> <p>Keeping Quiet</p> <p>Learning Outcomes: Each student will be able to</p> <p>list down the different kinds of wars fought by humans</p> <p>state reasons as to why on the need of the hour is to maintain peace</p>	<p>Each student will be able to:</p> <p>*calculate the point of max/min in a given Interval</p> <p>*apply the first derivative test to find all points of local maxima/minima of a function</p> <p>*apply the second derivative test to examine local maxima or local minima</p> <p>*differentiate btw absolute max/min and local max/min</p> <p>*apply the concept of max/min to solve word</p>	<p>mathematically.</p> <p>*Interpret the relation between drift velocity and mobility of electrons.</p> <p>*Draw VI graphs for Ohmic and non Ohmic conductors.</p> <p>*Differentiate between resistivity and conductivity of a conductor. *Explain the effect of temperature on the resistance and resistivity of a conductor.</p> <p>*Graphically show the variation of resistance and resistivity with temperature for conductors, insulators and semiconductors.</p> <p>*Express electrical energy and power mathematically.</p> <p>*Distinguish between emf and potential difference of a cell.</p> <p>*Write expression for the emf and the</p>	<p>Chemical properties of Glucose</p> <p>Cyclic structure of monosaccharides- Fischer and Haworth Projection, Anomers, Mutarotation, glycosidic bond -</p> <p>oligosaccharides and polysaccharides</p> <p>Proteins- Amino acids, classification, characteristics, types and structure of proteins, Peptide bond, Denaturation</p> <p>Nucleic acids- DNA, RNA, nucleoside, nucleotide, phosphodiester bond</p> <p>Vitamins- significance,</p>	<p>*explain any two chromosomal disorders</p> <p>*distinguish between Klinefelter's syndrome and Turner's syndrome. (2 points)</p> <p>*explain three salient features of DNA double helix structure</p> <p>*compare the packaging of DNA helix in prokaryotes and eukaryotes. (2 points)</p> <p>*justify giving reason that RNA is the first genetic material</p> <p>*compare the features of DNA and RNA (2 points)</p>	<p>database, tables and execute MYSQL queries through Python using mysql.connector</p> <p>=>write Project code for connectivity of Python with Mysql</p> <p>=>make Sample Project XII</p> <p>=>present Project Synopsis</p>				<p>Inclusion in sports, its need, and Implementation</p> <p>Advantages of Physical Activities for children with special needs</p> <p>Strategies to make Physical Activities assessable for children with special needs</p> <p>Learning Outcomes:</p>
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<p>justify the title</p> <p>pick out poetic devices</p> <p>list down a list of new words and look up for their meaning</p> <p>Vistas:</p> <p>Prose: The Tiger King</p> <p>Learning Outcomes:</p> <p>Each student will be able to</p> <p>state the drawbacks of kingship and autocracy</p> <p>interpret the title</p>	<p>problems Topic:</p> <p>Integrals</p> <p>*define the concept of anti derivative</p> <p>*learn the integral of basic functions by the method of inspection</p> <p>*integrate by substitution</p> <p>*apply the method of substitution to</p> <p>*solve problems of integration by using</p> <p>trigonometric identities</p>	<p>effective internal resistance in case of combination of cells.</p> <p>* State Kirchoff's rules and apply it to obtain balance condition of Wheatstone bridge.</p> <p>*Compare magnetic field with that of electric field.</p> <p>*Apply Biot Savart law to determine magnetic field intensity due to different current configurations.</p> <p>*Interpret from Ampere's circuital law that surface integral of B over closed surface is zero.</p> <p>* Deduce expression for magnetic field intensity due to a current carrying loop, infinite straight wire.</p> <p>* Compare and contrast the magnetic field due to a solenoid and</p>	<p>types and deficiency diseases</p> <p>Life Skills: Problem solving and Critical Thinking</p> <p>Values: Fostering Respect For Differences Responsibility and awareness</p> <p>Gender sensitivity: 'Gender Awareness'</p> <p>Health and wellness Meditation and health</p> <p>*CBSE Project (Extra Class)</p> <p>Learning Outcomes: Alcohols, Phenols and ethers</p> <p>Each student will be able to:</p> <p>*Write equations for the preparation</p>	<p>*explain Hershey-Chase experiment as well as Meselson and Stahl's experiment</p> <p>*describe the mechanism of replication of DNA and its importance</p> <p>*draw a labelled schematic sketch of replication fork of DNA</p> <p>*describe the initiation, elongation and termination process of transcription in bacteria.</p> <p>*mention two salient features of genetic code.</p>					<p>Each student will be able to:</p> <p>Differentiate between Special Olympics; Paralympics, and Deaflympics</p> <p>Understand concepts and the importance of inclusion in sports</p> <p>Describe the activities & strategies for</p>
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	<p>speaking about the plot and events, theme in the lesson</p> <p>design a poster to create awareness about saving the tiger population</p> <p>write a letter to the editor to express themselves</p> <p>Life Skills: coping with stress, managing emotions and problem solving</p> <p>Values: perseverance, determination</p> <p>General Awareness:</p>		<p>toroid.</p> <p>*Explain the difference in the force experienced by a moving charge in a magnetic field only with that moving in an electric field.</p> <p>*Interpret the equation for the force between two current carrying conductors.</p> <p>*Compare the torque experienced by an electric dipole in an electric field with that experienced by a current loop in uniform magnetic field.</p> <p>* Compare and contrast the conversion of galvanometer into ammeter and voltmeter.</p> <p>*Apply formulae and concepts to solve related questions.</p>	<p>of preparation of phenols from</p> <p>(i) haloarenes (ii) benzene sulphonic acids (iii) diazonium salts and (iv) cumene.</p> <p>*Solve equation-based questions and interconversions on the preparation of aliphatic and aromatic alcohols.</p> <p>*Explain the name reactions and their mechanism (Reimer Tieman reaction, Williamsons Synthesis, Kolbe reaction).</p> <p>*Correlate physical properties of alcohols, phenols and ethers with their structures.</p>					<p>children with special needs</p>
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awareness
about bullying
**Gender
sensitivity:**
sensitivity
towards all

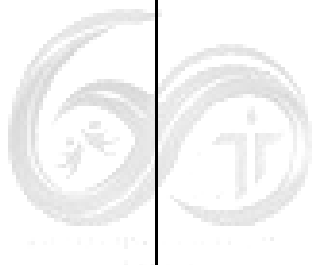
*Distinguish
between
different types
of alcohols
based on
Luca's test and
also write the
reactions
involved.

*Solve
equation-based
questions and
interconversion
s on the
preparation of
aliphatic and
aromatic
ethers.

*Solve
equation-based
questions on
the chemical
properties of
aliphatic and
aromatic ethers
(Anisole) and
related
interconversion
s.

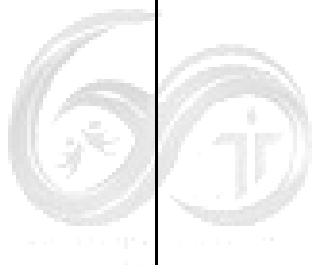
Biomolecules

*Define and
classify
carbohydrates
and



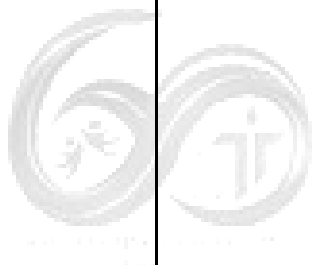
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				<p>monosaccharides</p> <ul style="list-style-type: none">*Explain the chemical reactions of glucose for the structure determination of glucose.*Explain D & L configuration in monosaccharides*Explain the cyclic structure of glucose and fructose.*Draw the Haworth and Fischer projections of glucose and fructose.*Explain the terms anomers, epimers and mutarotation.*Explain the terms-amino acids, peptide bond, Proteins, zwitter ion and denaturation.*Explain the				
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EAST OF KIRTI VIHAR, NEW DELHI

				<p>1^o, 2^o, 3^o, 4^o structures of proteins. *Differentiate between fibrous and globular proteins. *Explain the term - Nucleic acids: their composition, nucleoside, nucleotide and phosphodiester bond. *Differentiate between RNA & DNA. *Explain different types of bonds in biomolecules (glycosidic bond, peptide bond and phosphodiester bond). *Explain the function of vitamins, their deficiency diseases & function of</p>					
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EAST OF KAILASH, NEW DELHI

				hormones. *Describe the role of biomolecules in the biosystem.					
July	<p>Long Writing Skills: Report Writing</p> <p>Learning Outcomes:</p> <p>Each student will be able to differentiate between a magazine and newspaper report</p> <p>give inputs on the format and style and tone of a letter to the editor</p> <p>suggest expressions</p>	<p>Topic: Integrals</p> <p>Learning Outcomes:</p> <p>Each student will be able to</p> <p>*define the concept of anti derivative</p> <p>*learn the integral of basic functions by the method of inspection</p> <p>*apply the method of substitution to solve problems of</p>	<p>Topic: Magnetism and Matter (5 classes)</p> <p>Subtopics: Bar magnet, solenoid</p> <p>*Magnetic field intensity due to a magnetic dipole (bar magnet)</p> <p>*Torque on a magnetic dipole (bar magnet) in a uniform magnetic field.</p> <p>*Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples.</p> <p>Topic: Electromagnetic Induction (7 classes)</p> <p>Subtopics:</p> <p>*Electromagnetic induction; Faraday's</p>	<p>Topic: Electrochemistry (12)</p> <p>Sub topics: Redox reactions, Electrochemical & electrolytic cells Electrode potential and its measurement, EMF of a cell, standard electrode potential, Electrochemical series and its applications. Nernst equation & its application to chemical cells, Relation between Gibb's energy change & emf of a cell and Numerical. Conductance in electrolytic solutions,</p>	<p>Topic: Molecular Basis of Inheritance</p> <p>Subtopics:</p> <p>*Translation</p> <p>*Regulation of Gene Expression</p> <p>*Human Genome Project</p> <p>*DNA fingerprinting</p> <p>Topic: Evolution</p> <p>Subtopics:</p> <p>*Origin of Life and Evolution of Life Forms- A Theory</p> <p>*What are the Evidences for Evolution?</p> <p>*Adaptative Radiation</p> <p>*Biological</p>		<p>DETERMINATION OF INCOME AND EMPLOYMENT</p> <ul style="list-style-type: none"> Aggregate demand and its components Propensity to consume and propensity to save (Average and Marginal) Short - run equilibrium output; 	<p>UNIT 4: Psychological Disorders</p> <p>Anxiety Disorders</p> <p>Obsessive-Compulsive and Related Disorders</p> <p>Trauma- and Stressor-Related Disorders</p> <p>Somatic Symptom and Related Disorders</p> <p>Dissociative Disorders</p> <p>Depressive Disorders</p>	<p>Unit V - Sports & Nutrition</p> <p>Concept of balanced diet and nutrition</p> <p>Balanced Diet & Nutrition</p> <p>Macro & Micro Nutrients: Food sources & functions</p> <p>Nutritive & Non-Nutritive Components of Diet</p> <p>Eating for Weight</p>

<p>and phrases to draft a report</p> <p>draft a magazine and newspaper report</p> <p>The Rattrap by Selma Lagerlof</p> <p>Learning Outcomes:</p> <p>Each student will be able to</p> <p>effectively provide a synopsis of the story.</p> <p>identify the insecurity while tackling personal fears and horrors that lurk in the</p>	<p>integration by using trigonometric identities</p> <p>*derive the solution of special integrals</p> <p>*apply the method of by parts and partial fractions to solve problems</p> <p>*perceive the concept of definite integral of a function</p> <p>*apply the properties of</p> <p>*definite integrals in solving problems</p> <p>Topic:</p> <p>- Application</p>	<p>laws</p> <p>*Induced EMF and current</p> <p>*Lenz's Law, Self, and mutual induction.</p> <p>Topic: Alternating Current (9 classes)</p> <p>Subtopics:</p> <p>*Alternating currents, peak and RMS value of alternating current/voltage. Reactance (inductive and capacitive), Phasor diagrams and impedance (LCR series circuit (phasors only). *Resonance, power in AC circuits.</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>*Magnetism and Matter :</p> <p>*Compare and contrast the</p>	<p>specific & molar conductivity, Variation of conductivity with dilution & related numerical, Kohlrausch law and its applications- Numerical</p> <p>Concept of electrolysis, Faraday's laws of electrolysis & related numerical, Cells and batteries, Mechanism of corrosion.</p> <p>Topic: Chemical Kinetics (8)</p> <p>Sub topics:</p> <p>Rate of a reaction (instantaneous & average)</p> <p>Factors affecting rate of reaction (conc, temp, catalyst) and their</p>	<p>Evolution</p> <p>*Mechanism of Evolution and Hardy-Weinberg Principle</p> <p>*A Brief Account of Evolution</p> <p>*Origin and Evolution of Man</p> <p>Topic:</p> <p>Human Health and Disease</p> <p>Subtopics:</p> <p>*Common Diseases in Humans</p> <p>*Immunity</p> <p>*AIDS</p> <p>*Cancer</p> <p>*Drugs and alcohol abuse</p> <p>Topic:</p> <p>Microbes in Human Welfare</p> <p>Subtopics:</p> <p>*Microbes in Household products and Industrial Products</p>			<p>Investment multiplier and its working</p> <ul style="list-style-type: none"> • Meaning of full employment and involuntary unemployment • Problems of excess demand and deficient demand; corrective measures; changes in government spending, taxes and money supply <p>Learning</p>	<p>Bipolar and Related Disorders</p> <p>Schizophrenia Spectrum and Other Psychotic Disorders</p> <p>Neurodevelopmental Disorders Disruptive, Impulse-Control and Conduct Disorders</p> <p>Feeding and Eating Disorders Substance-Related and Addictive Disorders</p> <p>Learning Outcomes:</p>	<p>Control – A Healthy Weight, The Pitfalls of Dieting, Food Intolerance & Food Myths</p> <p>Importance of Diet in Sports-Pre, During and Post competition Requirements</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Describe the concept of balanced diet and</p>
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<p>recesses of our mind.</p> <p>appreciate the significance of developing personal fears yet rising above them to savor real liberty.</p> <p>enrich their vocabulary</p> <p>justify the title</p> <p>express themselves through the writing tasks</p> <p>Formal and Informal Invitations & Replies (Acceptance and Regret)</p>	<p>of Integration</p> <p>Learning Outcomes:</p> <p>Each child will be able to:</p> <p>*draw the curve</p> <p>*find the point of intersection</p> <p>*identify the area to be calculated</p> <p>*calculate the area bounded by the curves such as lines, ellipse, parabola, circle.</p>	<p>magnetic field lines due to a solenoid and a bar magnet.</p> <p>*Infer the equation for the magnetic field intensity of a bar magnet by comparing with that of an electric dipole.</p> <p>* Deduce the equation for torque on magnetic dipole in uniform magnetic field by comparing with electric dipole.</p> <p>*Compare the properties of dia, para and ferro magnetic materials.</p> <p>*Apply formulae and concepts to solve related questions from sample papers, NCERT and board papers.</p> <p>Electromagnetic Induction:</p> <p>*Explain the consequences of Faraday's experiments.</p> <p>*State Faraday's laws in EMI and</p>	<p>graphical representation. Order and molecularity, rate law, specific rate constant.</p> <p>Integrated rate equations & half-life (zero and first order reactions). Pseudo molecular reactions. Collision theory (elementary idea only), Activation energy, Arrhenius equation Mathematical expression. Numerical on the above topics. Life Skills: Creative Thinking and Problem solving Value: Fostering</p>	<p>*Microbes in Sewage Treatment Plant</p> <p>*Production of Biogas</p> <p>*Microbes as Biocontrol Agents and as Biofertilisers</p> <p>Art Integration: 'Role Play' Students will prepare role play on the topic "Microbes in Human Welfare". They will present it in the class.</p> <p>Experiential Learning-Experiments</p> <p>*Prepare a temporary mount of onion root tip to study mitosis</p> <p>*Meiosis in onion bud cell or grasshopper testis through permanent slides</p> <p>*Flash cards/</p>	<p>Outcomes</p> <p>Differentiate between ex-post and ex-ante in Economics.</p> <p>2. Define and create a consumption function.</p> <p>3. Define and formulate Average Propensity to Consume (APC) and Marginal propensity to consume (MPC).</p> <p>4. Define and formulate Average Propensity to Save (APS) and Marginal propensity to save (MPS).</p> <p>5. Define investment,</p>	<p>Explain different models of abnormal behavior</p> <p>Describe the symptoms of various disorders</p> <p>Differentiate between hallucinations and delusions</p> <p>Differentiate between illness anxiety and somatic symptom disorder</p>	<p>nutrition</p> <p>Differentiate between Macro and Micro Nutrients</p> <p>Explain Nutritive & Non-Nutritive Components of Diet</p> <p>Recognize the pitfalls of dieting and food myths</p> <p>Unit VI Test & Measurement in Sports</p> <p>Fitness Test – SAI Khelo India Fitness Test in</p>
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<p>Learning Outcome</p> <p>Each student will be able to</p> <p>draft - formal & informal invitations, letters of acceptance & regret</p> <p>enhance their creative skills</p> <p>Journey to the end of the Earth by Tishani Joshi</p> <p>Learning Outcome</p> <p>Each student will be able to</p> <p>do a comparative study</p>			<p>Lenz's Law. *Apply Lenz's law/ Fleming's right-hand rule to infer the direction of induced current to different circuit configurations. *Differentiate between self and mutual induction. *Derive mathematically the expressions of self inductance of a long solenoid, mutual inductance of two coaxial solenoids.</p> <p>Alternating Current: *Differentiate between ac and dc voltage. *Mathematically derive the equation for mean value and rms value of a c voltage /current. *Explain behaviour of resistor, capacitor, and inductor to a.c graphically</p>	<p>Respect for Differences, Conflict Resolution Gender sensitivity: Debate on 'Gender and education'. Health and wellness: Time management</p> <p>Learning Outcomes: Each student will be able to: Electrochemistry *Explain the term redox reactions and give examples. *Describe the construction and working of an electrochemical cell (Daniel cell) and write the cell reactions and representation.</p>	<p>models showing examples of homologous and analogous organs. *Common disease-causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through virtual images. Comment on symptoms of diseases that they cause. *Model specimens showing symbiotic association in root nodules of leguminous plants, Cuscuta on host, lichens.</p> <p>Life Skill: Coping with emotions and stress Value: Responsibility</p>		<p>autonomous investment. 6. Explain the determinants of income in a two-sector model 7. Formulate the aggregate demand and disposable income of an economy. 8. Explain the determination of equilibrium income in the short run 9. Establish macroeconomic equilibrium with price level fixed through the graphical and algebraic methods.</p>	<p>school:</p> <ul style="list-style-type: none"> •Age group 5-8 yrs/ class 1-3: BMI, Flamingo Balance Test, Plate Tapping Test •Age group 9-18yrs/ class 4-12: BMI, 50mt Speed test, 600mt Run/Walk, Sit & Reach flexibility test, Strength Test (Abdominal Partial Curl Up, Push-Ups for boys, Modified
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<p>between the lesson and 'The Ailing Planet'</p> <p>analyze the reason of the depletion of the earth</p> <p>learn about the need to address environmental issues</p> <p>analyze the reason why Antarctica is the perfect place to study about the changes in the environment</p> <p>Indigo by Louis Fischer</p> <p>Learning</p>			<p>*Derive phase relation between current and voltage for these.</p> <p>*Represent the phase relation between current and voltage through phasor diagrams.</p> <p>*Deduce the phase relation between current and voltage in a LCR circuit.</p> <p>*Correlate resonance in LCR circuit and its application in tuning.</p> <p>*Graphically represent the dependence of current on frequency for series LCR circuit.</p> <p>Lab Activity: (i) To determine resistance of a galvanometer by half deflection method and to find its figure of merit. (ii) To draw the I-V characteristic curve for a p-n junction</p>	<p>*Differentiate between electrolytic and electrochemical cells.</p> <p>*Define and explain measurement of electrode potential of an electrode.</p> <p>*Define emf, standard electrode potential and electrochemical series.</p> <p>*Derive Nernst equation and relation between Gibb's energy change &</p>	<p>and awareness</p> <p>Gender Sensitivity: Sex-specific diseases</p> <p>Health and Wellness: Protection against diseases</p> <p>Learning Outcomes</p> <p>Each student will be able to-</p> <p>*list essential role of ribosome during translation</p> <p>*explain the process of translation</p> <p>*describe the role of lactose in lac operon</p> <p>*state as to why Human Genome project is called a mega project</p> <p>*list the steps of DNA fingerprinting</p>		<p>10. Describe the effects of autonomous change in aggregate demand on income and output.</p> <p>11. Deconstruct the multiplier mechanism in the final goods market</p> <p>12. Illustrate paradox of thrift</p> <p>13. Differentiate between excess and deficient demand.</p> <p>14. Solve the problem of excess and deficient demand through monetary and fiscal tools.</p>		<p>Push-Ups for girls)</p> <p>Measurement of Cardio-Vascular Fitness – Harvard Step Test</p> <p>• Duration of the Exercise in Seconds x100/5.5 X Pulse count of 1-1.5 Min after Exercise</p> <p>Computing Basal Metabolic Rate (BMR)</p> <p>Rikli & Jones - Senior Citizen Fitness Test</p>
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<p>Outcome</p> <p>Each student will be able to:</p> <p>reflect on the historical significance of indigo plantations in India and how they might relate to broader themes of colonialism and resistance.</p> <p>learn more about the Champaran Movement</p> <p>analyze Gandhi's role in helping peasants</p>			<p>diode in forward and reverse bias.</p>	<p>emf of a cell.</p> <p>*Solve numerical problems related to standard electrode potential, electrochemical series, Nernst equation, relation between ΔG and emf.</p> <p>*Define Ohm's law. *Define and derive units for resistance, resistivity, conductance, conductivity, molar conductivity. *Define and relate molar & specific</p>	<p>*explain different theories for origin of life</p> <p>*describe Miller's experiment for evolution</p> <p>*mention the theories of evolution and their evidences</p> <p>*compare divergent and convergent evolution</p> <p>*explain adaptive radiation and biological evolution</p> <p>*compare mutation theory of Hugo de Vries and Darwin's theory of natural selection</p> <p>*state Hardy-Weinberg principle giving three reasons as to how Hardy-Weinberg</p>		<p><u>HUMAN CAPITAL FORMATION</u></p> <p><u>How people become resources.</u></p> <p><u>Role of human capital in economic development</u></p> <p><u>Growth of education sector in India</u></p> <p>Learning Outcomes:</p> <ol style="list-style-type: none"> 1. Recognise the need for educational infrastructure for growth of a nation 2. Justify investment 		<p>I. Chair Stand Test for lower body strength</p> <p>II. Arm Curl Test for upper body strength</p> <p>III. Chair Sit & Reach Test for lower body flexibility</p> <p>IV. Back Scratch Test for upper body flexibility</p> <p>V. Eight Foot Up & Go Test for agility</p> <p>VI. Six</p>
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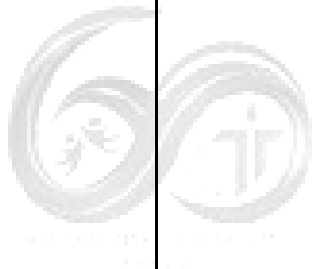
<p>comment on the sharecropping agreement</p> <p>draft a character sketch of Rajkumar Shukla</p> <p>speak on Gandhi's influence on the lawyers</p> <p>explain how self-reliant Indian independence and help to sharecroppers were all bound together.</p>				<p>conductance in electrolytic solutions. *Explain the variation of molar conductivity with dilution. *State and explain Kohlrausch law and concept of electrolysis. *Predict the product of electrolysis. *Solve numerical problems related to Specific, molar conductivity, Kohlrausch and Faraday's laws. *Explain the construction and working of the 1° cells, 2° cells and fuel cells. *Discuss the mechanism of corrosion writing the</p>	<p>equilibrium can be affected. *list the steps of origin and evolution of man *state any two factors which affect the health *mention the symptoms, preventive measures and cure of two common diseases *explain the life cycle of malarial parasite in human body *list the four types of barriers in innate immunity *differentiate between innate and acquired immunity as well as active and passive immunity *compare the role</p>		<p>nt in health infrastructure for the development of the nation</p> <p>3. Evaluate the efficacy of on-the-job-training provided by employers towards human capital development</p> <p>4. Argue for or against Brain Drain</p> <p>5. Summarise the factors that determin</p>		<p>Minute Walk Test for Aerobic Endurance</p> <p>Johnsen – Methney Test of Motor Educability (Front Roll, Roll, Jumping Half-Turn, Jumping fullturn</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Understand the importance of flexibility, explosive strength</p>
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				<p>chemical equations involved at the respective electrodes.</p> <p>Art Integration Activity 'Word Search Game' on different aspects of Electrochemistry</p> <p>Chemical Kinetics *Define and distinguish between average and instantaneous rate. *Express rate in terms of reactants and products & Rate law. *Explain the dependence of rate on factors like concentration, temperature, volume and catalyst.</p>	<p>of B and T lymphocytes *list three ways of transmission of HIV infection *mention the events which occur in human body to cause immunodeficiency, when HIV gains entry into the body *describe the causes of cancer and its treatment *list the drug types and their effects *name the different types of microbes *explain the role of microbes in household and industrial products *describe the importance of microbes in</p>		<p>e human capital</p> <p>6. Evaluate the relation between growth in human capital formation and economic growth</p> <p>7. Evaluate educational achievements in India</p> <p>8. Justify why 'Education for all' is still a distant dream</p> <p>Argue for gender equity in education</p>		<p>and balance</p> <p>Determine physical fitness Index through Harvard Step Test/Rockport Test * Compute Basal Metabolic Rate (BMR)</p> <p>Understand the ideal BMI</p> <p>Know the six Rikli & Jones – Senior Citizen Fitness Test</p> <p>Unit VII Physiology &</p>
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				<p>*Distinguish between elementary and complex reactions.</p> <p>*Discuss the mechanism of complex reactions.</p> <p>*Differentiate between order and molecularity of a reaction.</p> <p>*Derive integrated rate equations for zero & first order reaction & solve numerical problems related to them.</p> <p>*Analyses the graphs for determination of the rate constant.</p> <p>*Define the terms- Half-life period & solve numerical problems related to first order kinetic</p>	<p>sewage treatment and in production of biogas</p> <p>*mention the usefulness of microbes as biocontrol agents and as biofertilizers.</p>				<p><u>Injuries in Sports</u></p> <p>Physiological factors determining components of physical fitness</p> <p>Effect of exercise on Muscular System</p> <p>Effect of exercise on Cardio-Respiratory System</p> <p>Physiological changes due to aging</p> <p>Sports injuries: Classification (Soft Tissue</p>
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				<p>equations and half-life. *Explain the postulates of collision theory. *Derive Arrhenius equation and solve related numerical problems.</p>					<p>Injuries - Abrasion, Contusion, Laceration, Incision, Sprain & Strain; Bone & Joint Injuries - Dislocation, Fractures - Green Stick, Comminuted, Transverse Oblique & Impacted)</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Explain the Physiological</p>
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									<p>Determinants of Strength, Speed, Endurance & Flexibility</p> <p>Students will know the Immediate and Long-term effects of Cardio Respiratory system</p> <p>Understand the physiological changes due to ageing</p> <p>Classify sports injuries with its Management</p>
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<p>Aug</p>	<p>A Roadside Stand by Robert Frost</p> <p>Learning Outcome</p> <p>Each student will be able to</p> <p>Speak about the callous attitude of the rich towards the poor</p> <p>compare and contrast the progress and development that is unequal between the cities and villages</p> <p>justify the title</p> <p>comment on the rhyme</p>	<p>Topic: Differential Equations</p> <p>Learning Outcome</p> <p>Each student will be able to</p> <p>*define a differential equation. Its order and degree</p> <p>*form the differential equation whose general solution is given</p> <p>*solve the differential equation using the method of separating</p>	<p>Topic: Alternating Current (cont.) (5 classes)</p> <p>Subtopics: Power factor, wattless current, AC generator, Transformer.</p> <p>Topic: Electromagnetic Waves (4 classes)</p> <p>Subtopics:</p> <p>*Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only)</p> <p>*Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.</p> <p>Topic: Ray Optics (10 classes)</p> <p>Subtopics:</p> <p>*Mirror formula</p> <p>*Refraction of light</p>	<p>Topic: Aldehydes, Ketones and Carboxylic Acids (14)</p> <p>Sub topics: IUPAC nomenclature and isomerism</p> <p>Methods of preparation (acetaldehyde and acetone)</p> <p>Name reactions (Stephen & Rosenmund reduction)</p> <p>Physical and Chemical properties - Mechanism of nucleophilic addition, addition elimination, reactivity of alpha hydrogen-Aldol condensation</p> <p>Name reactions (Clemmensen's reduction, Cannizzaro)</p>	<p>Topic: Biotechnology: Principles and Processes</p> <p>Subtopics:</p> <p>*Principles of Biotechnology</p> <p>*Tools of Recombinant DNA technology</p> <p>*Processes of Recombinant DNA technology</p> <p>Topic: Biotechnology and its Applications</p> <p>Subtopics:</p> <p>*Biotechnological Applications in Agriculture</p> <p>*Biotechnological Applications in Medicine</p> <p>*Transgenic animals</p> <p>*Ethical issues</p> <p>Topic: Organisms and Populations</p>		<p>RURAL DEVELOPMENT</p> <p>Key issues- credit and marketing- role of cooperatives</p> <p>Agricultural diversification, alternative farming- organic farming</p> <p>Learning outcome:</p> <ol style="list-style-type: none"> 1. Summarise the key areas of rural development 2. Justify the importance of agricultural diversification 3. List the 	<p>UNIT 5 THERAPEUTIC APPROACHES</p> <p>Nature and process of psychotherapy</p> <p>Therapeutic relationship</p> <p>Behaviour Therapy</p> <p>Cognitive Therapy</p> <p>Humanistic-existential Therapy</p> <p>Alternative Therapies</p> <p>Rehabilitation of the Mentally III</p> <p>Learning Outcomes</p>	<p>Unit VIII Biomechanics & Sports</p> <p>Newton's Law of Motion & its application in sports</p> <p>Types of Levers and their application in Sports</p> <p>Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports</p> <p>Friction & Sports</p> <p>Projectile</p>
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<p>scheme and the stanza division and pick out poetic devices</p> <p>Poets and Pancakes by Asokamitran</p> <p>Learning Outcome</p> <p>Each student will be able to</p> <p>Interpret the title</p> <p>Speak about the struggles that Ashokmitran went through</p> <p>Pick out elements of humour used in the lesson and analyse</p>	<p>variables</p> <p>*define a homogenous differential equation</p> <p>*identify a linear differential equation</p> <p>*solve a linear differential equation</p> <p>(dy/dx +Py=Q)</p> <p>Topic: Inverse Trigonometric Functions</p> <p>Learning Outcome</p> <p>Each student will be able to</p>	<p>*Total internal reflection and optical fibers.</p> <p>*Refraction at spherical surfaces.</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Alternating Current (cont.)</p> <p>*State the principle of working of a c generator, transformer.</p> <p>*Interpret the causes of power loss in transformers.</p> <p>*List the ways of reducing the power loss in the transformer.</p> <p>Electromagnetic Waves:</p> <p>* Differentiate between conduction current and displacement current.</p> <p>* List at least five</p>	<p>reaction Tests for the functional group-Tollen's & Fehling (oxidation) and iodoform)</p> <p>Carboxylic acids: Nomenclature, isomerism, acidic nature & its comparison</p> <p>Method of preparation (acetic acid & benzoic acid)</p> <p>Physical and chemical properties, mechanisms involved. Name reaction (HVZ, Kolbe, Boradine Hunsdiecker), Uses and tests for the functional group</p> <p>Structural elucidation questions</p> <p>Art Integration</p>	<p>Subtopics:</p> <p>*Population Attributes</p> <p>* Population Growth</p> <p>Experiential Learning- Experiments</p> <p>*Study the plant population density by quadrat method</p> <p>*Study the plant population frequency by quadrat method</p> <p>Life Skill:</p> <p>Decision making</p> <p>Value:</p> <p>Determination</p> <p>Gender sensitivity:</p> <p>Awareness</p> <p>Health and Wellness:</p> <p>Safety issues</p> <p>Learning</p>			<p>functions performed by NABARD</p> <p>4. Analyse the rural banking system and micro credit programmes in India</p> <p>5. Define agricultural marketing</p> <p>6. Describe the need for government regulation in agricultural market</p> <p>7. Highlight the benefits and</p>	<p>Explain the nature and process of psychotherapy</p> <p>Describe the goals of psychotherapy</p> <p>Explain therapies like cognitive therapy, humanistic-existential therapy, biomedical therapy and alternative therapies</p> <p>Discuss how people with mental disorders can be rehabilitated</p> <p>UNIT 6: Attitude</p>	<p>in Sports</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Explain Newton's three Laws of Motion, Equilibrium, & Projectile with their application in sports</p> <p>Understand the lever and its application in sports, Friction & Sports</p> <p>Unit IX Psychology</p>
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<p>them</p> <p>justify the title</p> <p>Aunt Jennifer's Tigers by Adrienne Rich</p> <p>Learning Outcome</p> <p>Each student will be able to:</p> <p>Interpret the title</p> <p>make connections between similar situations in different storylines/life experiences.</p> <p>empathize with Aunt</p>	<p>*evaluate the domain / range of inverse trigonometric functions</p> <p>*perceive the concept of principle branches</p> <p>*sketch the graphs of inverse trigonometric functions.</p> <p>Topic: Linear Programming Problem</p> <p>Each child will be able to</p> <p>*define an L.P.P, objective function, constraints,</p>	<p>characteristics of electromagnetic waves.</p> <p>* Explain transverse nature of electromagnetic waves(qualitatively).</p> <p>* Identify the electromagnetic spectrum in terms of the wavelength/frequency.</p> <p>* Write at least one use of the components of the spectrum.</p> <p>Ray Optics:</p> <p>*Apply mirror formula to solve related numerical questions.</p> <p>*Draw ray diagram to show refraction of light through a compound plate.</p> <p>*List the factors on which lateral displacement depends.</p> <p>*Explain the phenomenon of TIR.</p> <p>*Differentiate between reflection</p>	<p>Activity</p> <p>'Crossword Puzzle Game' on preparation and properties of Aldehydes and Ketones</p> <p>Amines (6)</p> <p>Introduction, Nomenclature and Isomerism. Methods of preparation (Ethanamine and Aniline) Hoffmann Ammonolysis. Physical and Chemical properties of aliphatic and aromatic amines (Hoffmann Bromamide) Hinsberg test for 1^o, 2^o & 3^o amines. Diazonium salts: Benzene Diazonium Chloride-Preparation, Chemical</p>	<p>Outcomes</p> <p>Each student will be able to-</p> <p>*explain biotechnology</p> <p>*mention two core techniques that enabled the birth of biotechnology</p> <p>*state three basic steps in genetically modifying an organism</p> <p>*list three key tools of recombinant DNA technology</p> <p>*explain the naming and mechanism of action of restriction enzymes</p> <p>*describe biotechnological applications in agriculture</p> <p>*list any four applications of genetically modified plants</p>			<p>limitations of organic farming</p> <p>ENVIRONMENT AND SUSTAINABLE DEVELOPMENT</p> <p>Meaning of environment, Effects of economic development on resources and environment, global warming, ozone depletion</p> <p>Learning Outcome</p> <p>1. Appreciate the importance of environment in economic</p>	<p>and Social cognition</p> <p>Explaining social behavior</p> <p>Nature and components of attitude</p> <p>Attitude formation - Factors</p> <p>LEARNING OUTCOME S:</p> <p>Each student will be able to:</p> <p>Explain attitudes</p> <p>Describe how they are formed and changed</p> <p>Analyze how people interpret and explain the</p>	<p>Physical Education & Sports</p> <p>Personality; its definition & types (Jung Classification & Big Five Theory)</p> <p>Motivation, its type & techniques</p> <p>Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it</p> <p>Meaning, Concept & Types of Aggression in Sports</p> <p>Psychological Attributes in Sports –</p>
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<p>Jennifer's problems and seek resolution.</p> <p>think and produce spontaneous, fluid and expression in poetic texts to convey a social change.</p> <p>discern prevailing inequalities in various guises.</p> <p>justify the title</p> <p>On the Face of It by Susan Hill</p> <p>Learning Outcome</p> <p>bring out the</p>	<p>feasible region, feasible solution</p> <p>*find the feasible region.</p> <p>*solve an L.P.P using Corner point method</p> <p>Topic:</p> <p>Probability</p> <p>Learning Outcome</p> <p>Each child will be able to</p> <p>*define probability, random exp, event, sample</p>	<p>and TIR.</p> <p>*Apply condition for TIR to draw the path of light through totally reflecting prisms.</p> <p>*Explain the application of TIR in optical fibers.</p> <p>*Draw ray diagram to show refraction of light through a spherical refracting surface.</p>	<p>reactions and Importance in synthetic organic chemistry.</p> <p>Related reasoning, application-based questions and inter-conversions.</p> <p>Life Skills: Creative Thinking and Problem solving</p> <p>Value: Fostering Respect For Differences</p> <p>Gender sensitivity: Group discussion On 'Gender Equality'</p> <p>Health and wellness: Seasonal Diet</p> <p>Learning Outcomes: Each student will be able to:</p> <p><u>Aldehydes, Ketones &</u></p>	<p>*name the cry genes that control cotton bollworm and corn borer</p> <p>*explain the process involved in the production of nematode resistant tobacco plants</p> <p>*compare the insulin produced by Eli Lilly and the one produced by human body</p> <p>*describe the gene therapy procedure for ADA deficient patient</p> <p>*list four ways in which transgenic animals can be beneficial to humans</p> <p>*explain biopiracy and ethical issues</p> <p>*state three attributes of population</p> <p>*construct age pyramids</p>			<p>development</p> <p>2. Explain the functions of environment</p> <p>3. Infer the consequences of environment being pushed beyond its carrying capacity</p> <p>4. Evaluate the impact of economic growth on environment</p> <p>5. Highlight the causes of environmental degradat</p>	<p>behavior of others</p> <p>Explain attitude formation</p>	<p>Self Esteem, Mental Imagery, Self-Talk, Goal Setting</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Explain Personality; its definition & types</p> <p>Recognize the concept of motivation and identify various types of motivation</p> <p>Know the</p>
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	<p>theme</p> <p>build up optimism and self-confidence.</p> <p>fight out their loneliness, depression and disappointment.</p> <p>accept the physically challenged people positively in their life and expand their social interaction</p> <p>justify the title</p> <p>express themselves through an article writing</p>	<p>space</p> <p>*recall the fundamental principle of addition and multiplication</p>		<p><u>Carboxylic Acids</u> Name aldehydes, ketones and carboxylic acids according to IUPAC nomenclature. *Draw the isomers for a given molecular formulae. *Write equations for the preparation of ethanal, acetone & ethanoic acid. *Explain the equations for name reactions (Stephen, Rosenmund, Clemmenson reduction, Cannizzaro, Aldol condensation, HVZ & Boradine Hunsdiecker reaction). *Compare the reactivity of</p>	<p>showing expanding, stable and declining human population *describe the population growth and its factors *explain Verhulst-Pearl Logistic Growth of a population</p>		<p>ion</p> <p>6. Highlight the importance of sustainable development</p> <p><u>EMPLOYMENT AND UNEMPLOYMENT</u> Growth and changes in workforce participation rate in formal and informal sectors; problems and policies <u>Learning outcomes:</u> 1. Define the terms associated with population and</p>	<p>Meaning, Concept & Types of aggression in sports</p> <p>Identify various reasons to exercise, its associated benefits and strategies to promote exercise adherence</p> <p>Understand psychological attributes in sports</p>
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				<p>aldehydes and ketones towards nucleophilic addition reactions. *Discuss and apply the mechanism for Aldol condensation and reactions involving Grignard reagent. *Distinguish between aldehydes and ketones (DNP, Tollen's, Fehling and Iodoform test) giving the equations involved. *Explain the test for carboxylic group (sodium bicarbonate test, Esterification) and write the equations</p>			<p>employment</p> <ol style="list-style-type: none"> 2. Define various types of workers 3. Highlight various trends of employment across rural and urban area, across various sectors and gender. 4. Analyse the concept of casualisation of workforce and informalisation of workforce 5. Define unemplo 		
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				<p>involved.</p> <p>*Compare the acidity of different types of acids. *Solve interconversions and structural elucidation questions related to aldehydes, ketones & carboxylic acids. <u>Amines</u></p> <p>*Classify amines as primary, secondary and tertiary.</p> <p>*Name aliphatic and aromatic Amines according to common and IUPAC nomenclature.</p> <p>*Draw the isomers for a given molecular formulae.</p> <p>*Write the chemical equations for</p>			<p>ment</p> <p>6. Interpret the reasons behind various types of rural and urban unemployment</p> <p>Justify the role of government in employment generation</p>		
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				<p>various methods of preparation of Ethylamine, Aniline and Diazonium salts.</p> <p>*Explain the reactions for the chemical properties of amines.</p> <p>*Explain name reaction (Hoffmann Ammonolysis & Hoffmann Bromamide reaction).</p> <p>*Distinguish between 1^o, 2^o & 3^o amines (Hinsberg test).</p> <p>*Discuss the importance of Diazonium salts in the synthesis of a series of aromatic compounds.</p> <p>*Solve interconversions, reasoning and application-</p>					
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				based questions related to amines.					
September	<p>The Enemy by Pearl S. Buck</p> <p>Learning Outcome</p> <p>Each student will be able to interpret the title</p> <p>familiarize themselves with the specific background of political enmity.</p> <p>identify and make connections</p>	<p>Topic: Probability</p> <p>Learning Outcome</p> <p>Each student will be able to</p> <p>*list the various types of events</p> <p>*differentiate btw independent and mutually exclusive events</p> <p>*perceive the concept of reverse</p>	<p>Topic: Ray Optics (cont.) (4 classes+ 4 extra class)</p> <p>Subtopics:</p> <p>*Lenses, thin lens formula, lens maker's formula.</p> <p>*Magnification, power of a lens, combination of thin lenses in contact.</p> <p>*Refraction of light through a prism.</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>*Draw ray diagram to show refraction of light through a thin lens.</p> <p>*Derive lens maker's formula and lens formula mathematically.</p> <p>*Mathematically deduce the expression for</p>	<p>Topic: d and f-Block Elements (4)</p> <p>Sub-topics:</p> <p>Introduction-d & f block elements, position in periodic table, electronic config, occurrence</p> <p>Characteristics of transition metals.</p> <p>General trends in properties of the first-row transition metals-metallic character, ionization enthalpy, oxidation state, ionic radii, colour, catalytic property, magnetic</p>	<p>Topic: Organisms and Populations (contd.)</p> <p>Subtopics: Population Interactions</p> <p>Art Integration 'PowerPoint / Video Presentation'</p> <p>Students will make a powerpoint or video presentation on the various population interactions existing in nature and present it in the class</p> <p>Life Skill: Healthy relationships</p>		<p>DEVELOPMENT EXPERIENCES: INDIA, CHINA, PAKISTAN</p> <p>A comparison with neighbours- China and Pakistan; Issues- Economic growth, population, sectoral development, and human development indicators</p> <p>Learning Outcomes:</p> <p>1. Analyse China's road to become an</p>	<p>UNIT 6: Attitude and Social cognition</p> <p>Attitude formation (process)</p> <p>Attitude change</p> <p>Prejudice and discrimination</p> <p>Strategies for handling Prejudice</p> <p>LEARNING OUTCOME S:</p> <p>Explain process of</p>	<p>Unit X Training in Sports</p> <p>Concept of Talent Identification and Talent Development in Sports</p> <p>Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle</p> <p>Types & Method to Develop – Strength, Endurance</p>

<p>between similar situations in one's life experiences</p> <p>explain the significance of professional ethics and social obligation in sensitive times.</p> <p>express themselves through writing tasks</p> <p>Assessment of Listening and Speaking Skills</p> <p>Learning Outcome</p> <p>Each student will be able</p>	<p>probability</p> <p>*learn the Baye's theorem</p> <p>*define a random variable</p> <p>**apply the concept of random variable in finding mean and variance</p> <p>Experiential Learning-</p> <p>*Identify the role of probability in Casino games</p> <p>* Probability of Patients recovering from Covid 19 in Delhi in</p>	<p>refractive index of an equilateral glass prism.</p> <p>*Graphically represent the variation of angle of deviation with angle of incidence for a glass prism.</p> <p>*Apply the concepts and formulae logically to solve related conceptual questions and numerical.</p>	<p>properties, interstitial comp, alloy formation. Life Skills: Problem solving and Interpersonal Relationship</p> <p>Value: Fostering Respect For Differences</p> <p>Gender sensitivity: (Group discussion on 'Gender Equality')</p> <p>Health and wellness: Stress management</p> <p>Learning Outcomes: Each student will be able to:</p> <p>*Justify the position of d & f block elements in the periodic table. *Write electronic configuration &</p>	<p>Value: Dependability</p> <p>Gender sensitivity: Awareness</p> <p>Health and Wellness: Being responsible and safe</p> <p>Learning Outcomes</p> <p>Each student will be able to-</p> <p>*list any four population interactions and give one example of each.</p> <p>*compare mutualism and commensalism.</p> <p>*justify that predators act as 'conduits' for energy transfer across trophic levels.</p> <p>*give reason as to why the egrets always forage</p>			<p>industrial superpower</p> <p>2. Relate China's policies with India's industrial policies</p> <p>3. Distinguish between India's and Pakistan's policy of nationalisation to boost economic growth</p> <p>4. Draw parallels between the demographic indicators for India, China and</p>	<p>attitude formation and attitude change and the relationship between attitude and behavior.</p> <p>Define prejudice and discrimination and the sources of prejudice</p> <p>State the causes and sources in handling prejudice</p>	<p>e and Speed</p> <p>Types & Method to Develop – Flexibility and Coordinative Ability</p> <p>Circuit Training - Introduction & its importance</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>Understand the concept of talent identification & development in</p>
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	<p>to</p> <p>listen carefully to the transcripts and complete the worksheet</p> <p>Speak on the topic provided</p>	<p>August 2020</p> <p>Activity- students will explain the computation of conditional Probability</p> <p>Revision for Mid term Examination (5)</p> <p>Chap 2- Inverse Trigonometric Functions</p> <p>Chap-3 Matrices</p> <p>Chap-4 - Determinants</p> <p>Chap5- Continuity and Differentiation</p>		<p>predict the common characteristics of the d and f block elements.</p> <p>*Explain the periodic trends in d block elements.</p> <p>*Relate the general characteristics and properties of d and f block elements with their electronic configuration.</p>	<p>close to where the cattle are grazing</p>		<p>Pakistan</p>		<p>sports</p> <p>Know Sports Training Cycle</p> <p>Explain the definition, types & methods of improving – Strength, Endurance, Speed and Flexibility</p> <p>Know about Coordinative abilities</p>
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		<p>n</p> <p>Chap6-App of Derivatives</p> <p>Chap7-Integrals</p> <p>Chap8-App of Integrals</p> <p>Chap 9-Differential Equations</p>						
October	<p>The Interview by Christopher Silvester</p> <p>Learning Outcome</p> <p>Each student will be able to review and revise sample interview questions.</p>	<p>Topic: Vectors</p> <p>Learning Outcome:</p> <p>Each child will be able to</p> <p>*define a vector</p> <p>differentiate btw *vector and scalar</p>	<p>Topic: Ray Optics(cont.) (3 classes + 2 extra classes)</p> <p>Subtopics:</p> <p>*Optical instruments: Microscopes – Simple and Compound</p> <p>*Astronomical telescopes (reflecting and refracting).</p> <p>Topic: Dual Nature of Radiation and Matter (5 classes +</p>	<p>Topic: d and f-Block Elements contd.. (5)</p> <p>Sub topics:</p> <p>General trends in properties- Colour, magnetic properties, interstitial comp, alloy formation. Preparation & properties of $KMnO_4$ & $K_2Cr_2O_7$.</p>	<p>Topic:</p> <p>Ecosystem</p> <p>Subtopics:</p> <p>*Ecosystem-structure and Function</p> <p>*Productivity</p> <p>*Decomposition</p> <p>*Energy Flow</p> <p>*Ecological Pyramids.</p> <p>Topic:</p> <p>Biodiversity and Conservation</p>	<p>BALANCE OF PAYMENT AND FOREIGN EXCHANGE</p> <p>BOP A/C-meaning and components</p> <p>BOP-surplus and deficits</p> <p>Foreign exchange rate-meaning and types</p>	<p>UNIT 7 Social Influences and Group processes</p> <p>Nature and formation of groups</p> <p>Type of groups</p> <p>Group think</p> <p>Group polarization</p>	

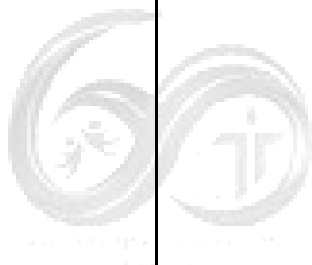
<p>brainstorm on questions for an interview.</p> <p>conduct and record an interview</p> <p>learn about the technique of 'interview' as a new way of interrogating.</p> <p>list down the use of linkers and signallers while conducting an interview</p> <p>give reasons why Umberto Eco likes/does not like being interviewed</p> <p>explain why the novel, The</p>	<p>list the various types of vectors</p> <p>*differentiate btw direction cosines/ratios</p> <p>*define scalar product of vectors</p> <p>*apply the scalar product concept in solving questions</p> <p>*define vector product of vectors</p> <p>*apply the vector</p> <p>* product concept in solving problems</p>	<p>1 extra class) Subtopics: *Photoelectric effect, Hertz & Lenard's experimental set up and observations *Einstein photoelectric equation, particle nature of light *De Broglie's wave equation and hypothesis.</p> <p>Topic: Electronic Devices (7 classes) Subtopics: *Energy bands in conductors, semiconductors, and insulators (qualitative ideas only) *Intrinsic and extrinsic semiconductors- p and n type, p-n junction. *Semiconductor diode - I-V characteristics in forward and reverse</p>	<p>Structures of their ions Lanthanoids & Actinoids: Configuration, Oxidation state, chemical reactivity Lanthanoid contraction & its consequences. Comparison between lanthanoids and actinoids. Coordination Compounds(10) Sub topics: Introduction to the coordination compounds (terms- ligand, central atom/ion, coordination sphere, coordination entity, counter ion, oxidation state & coordination no & their calculation) IUPAC</p>	<p>Subtopics: Biodiversity Biodiversity conservation</p> <p>Life Skill: Interpersonal relationship</p> <p>Value: Sensitivity to environment</p> <p>Gender Sensitivity: Gender stereotype</p> <p>Health and wellness: Coping with stress</p> <p>Learning Outcomes</p> <p>Each student will be able to- *describe the components of ecosystem *mention any two reasons why the primary productivity</p>			<p>Determination of flexible exchange rate Managed Floating Exchange rate system</p> <p>Learning Outcomes:</p> <ol style="list-style-type: none"> 1. Illustrate a BOP A/C 2. Explain different components of current and capital account 3. Evaluate autonomous and accommodating transactions 4. Explain the 	<p>Social Loafing</p> <p>Each student will be able to:</p> <p>Explain the nature and types of groups and know how they are formed .</p> <p>Describe the influence of group on individual behavior.</p>	
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	<p>Name of the Rose is a great success,</p> <p>Going Places by A.R. Barton</p> <p>Learning Outcome</p> <p>Each student will be able to list down the differences between them that show up between Sophie and Jansie in the story</p> <p>describe the character and temperament of Sophie's father</p>	<p>*evaluate the projection of a vector on another vector</p> <p>*find scalar triple product of given vectors.</p> <p>Topic: Three Dimensional Geometry</p> <p>*recall the concept of 3-D</p> <p>*list the various forms of line</p> <p>*apply the various equations of line in solving problems</p> <p>*define skew lines</p> <p>*calculate</p>	<p>bias</p> <p>*Application of junction diode - diode as a rectifier.</p> <p>Learning Outcomes:</p> <p>Each student will be able to :</p> <p>Ray Optics:</p> <p>*Draw ray diagrams to show image formation by a simple and compound microscope, astronomical telescope.</p> <p>*Deduce mathematically the expression for the magnifying power of the optical instruments.</p> <p>*Compare and contrast reflecting telescope over refracting telescope.</p> <p>*Apply the concepts and formulae logically to solve related conceptual questions and</p>	<p>nomenclature of mononuclear Compounds</p> <p>Isomerism (structural & stereo-isomerism)</p> <p>Bonding: Werner's theory, VBT (Hybridisation & Geometry of complexes)</p> <p>CFT- Properties (magnetic behavior and color)</p> <p>Importance of coordination compounds (in qualitative inclusion, extraction of metals & biological Life</p> <p>Skills: Problem solving and Interpersonal Relationship</p> <p>Value: Fostering Respect For Differences</p> <p>Gender</p>	<p>varies in different types of ecosystems</p> <p>*differentiate between net primary productivity and gross primary productivity</p> <p>*explain decomposition of detritus by different agents which is then made available as nutrients to the plants</p> <p>*give one example each of a detritore and a decomposer</p> <p>*list three parameters used for constructing ecological pyramid</p> <p>*construct pyramids of numbers, biomass and energy</p> <p>*compare two different types of pyramids of</p>		<p>causes behind disequilibrium in BOP A/C</p> <p>5. Define foreign exchange market</p> <p>6. Define fixed, floating and managed exchange rate</p>		
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<p>analyse why Sophie liked her brother Geoff more than any other person</p> <p>draft character sketches</p> <p>Memories of Childhood by Zitkala-Sa and Bama</p> <p>Learning Outcome</p> <p>Each student will be able to</p> <p>find out the commonality of theme found in the two distant cultures in the</p>	<p>the distance btw two lines-skew and parallel lines</p> <p>Topic: Relation and Function</p> <p>Learning Outcomes:</p> <p>*recall the definition of a function and relation</p> <p>*list the various types of relations</p> <p>*prove a relation to be an equivalence relation</p> <p>*evaluate the domain / range of given</p>	<p>numerical.</p> <p>Dual Nature of Radiation and Matter:</p> <p>*List the various methods of electron emission and define them.</p> <p>*Explain the various observations made by Hertz and Lenard experiments.</p> <p>*Graphically represent the conclusions from experimental set up on photoelectric effect.</p> <p>*State Einstein's laws of photoelectric emission</p> <p>*Conclude that wave nature cannot explain photo electric effect.</p> <p>*Correlate with radiation's dual nature and infer that Matter possesses dual nature.</p> <p>Electronic Devices:</p>	<p>sensitivity:(Group discussion on 'Gender Equality')</p> <p>Health and wellness:</p> <p>Stress management</p> <p>Learning Outcomes:</p> <p>Each student will be able to:</p> <p>d and f Block Elements</p> <p>*Discuss the consequences of f-block elements w.r.t lanthanide contraction.</p> <p>*Discuss the methods of preparation and chemical properties of $KMnO_4$ & $K_2Cr_2O_7$ by writing the reactions involved. *Draw and explain the structures of manganate and</p>	<p>biomass with the help of an example</p> <p>*mention three important components of biodiversity</p> <p>*explain the importance of biodiversity for ecosystem functioning</p> <p>*state two effects of loss of biodiversity in a region</p> <p>*describe the causes of biodiversity loss</p> <p>*give reason as to why biodiversity should be conserved</p> <p>*differentiate between in situ and ex situ conservation of biodiversity</p>					
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<p>account</p> <p>analyse how injustice in any form cannot escape being noticed even by children</p> <p>comment on Bama's experience as a victim of the caste system.</p> <p>analyse the kind of discrimination that Zitkala-Sa experiences</p> <p>revise all lessons from the literature section</p> <p>revise formats and content of all writing</p>	<p>functions</p> <p>*perceive the concept of composite functions</p> <p>*evaluate the inverse of a function</p> <p>Art Integration:</p> <p>Various forms of functions</p> <p>Dancing Math</p>	<p>*Differentiate between conductors, insulators, and semiconductors on the basis of conductivity and energy band diagram.</p> <p>*Explain the formation of p type and n type semiconductors and pn junction diode.</p> <p>*Draw circuit diagrams for characteristics of diode and graphically represent the variation of I with V.</p> <p>*Draw circuit diagram and explain working of a diode as a rectifier.</p>	<p>dichromate ions involved.</p> <p>*Give a comparative account of the lanthanoids and actinoids with respect to their electronic configurations, oxidation states and chemical behaviour.</p> <p><u>Coordination Compounds</u></p> <p>*Explain the terms related to complexes.</p> <p>*Name mononuclear coordination compounds according to IUPAC.</p> <p>*Define different types of structural and stereo-isomerism in coordination compounds.</p> <p>*Discuss the nature of bonding in</p>						
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	tasks			<p>coordination compounds in terms of Werner's theory, VBT & CFT.</p> <ul style="list-style-type: none"> *Differentiate between 1^0 and 2^0 valency. *Explain the formation of high spin and low spin complexes. *Explain the hybridisation of the central metal atom/ion in complexes based on magnetic properties. *List the limitations of Werner's theory and VBT. *Draw crystal field splitting patterns for tetrahedral and octahedral complexes. *Explain the properties of 					
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				<p>complex compounds- colour, type of complex etc using CFT. *Discuss the importance and applications of coordination compounds in daily life.</p>					
November	<p>Revision Revision Test</p>	<p>REVISION</p>	<p>Topic: Atoms and Nuclei (5 classes + 3 extra classes) Subtopics: *Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom *Expression for radius of nth possible orbit, velocity, and energy of electron in his orbit, of hydrogen line spectra (qualitative treatment only) *Composition and size of nucleus, nuclear force *Mass energy</p>	<p>Revision Revision Test</p>	<p>Revision Revision Test</p>		<p>Revision</p>	<p>Revision</p>	

relation, mass defect; binding energy.

Learning Outcomes

Each student will be able to:

*List the various models for structure of atom.

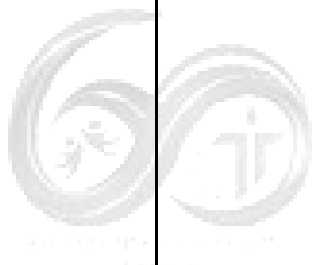
*Explain the observations of alpha particle scattering experiment.

*State the postulates of the Bohr's model for hydrogen atom.

*Mathematically derive the expressions for radius, velocity, and total energy of an electron in hydrogen atom.

*Draw energy level diagram for hydrogen atom.

Write the equation for mass energy relation and mass defect.



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			*Differentiate between nuclear fission and fusion. Revision Revision Test						
December	Revision Pre Board Examination	Revision	Pre-Board Examination	Pre-Board Examination	Pre-Board Examination		Revision	Revision	
January	Revision	Revision	Board Practical Examination	Board Practical Examination	Board Practical Examination		Revision	Revision	
February	Board Examination	Board Examination	Board Examination	Board Examination	Board Examination		Revision	Revision	