



TAGORE INTERNATIONAL SCHOOL
VASANT VIHAR, NEW DELHI
SYLLABUS (2024-25)
CLASS XI C & D

| MONTH | ENGLISH | MATHEMATICS | PHYSICS | CHEMISTRY | BIOLOGY | COMPUTER SCIENCE | ECONOMICS | PSYCHOLOGY |
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| APR | Prose-The Portrait of a lady Poem-A photograph Writing Skill-Poster Unseen Comprehension Passage Activity- Art Integration -Thank you card for grandparents | Sets Complex Numbers Activity: To verify distributive law for three given non-empty sets A, B and C To distinguish between various Indian art forms using Sets and venn diagrams. | Motion in a straight line Scalar and vectors Path length and displacement Average velocity and average speed Acceleration Kinematic equations for motion Graph for one dimensional motion | Unit 1 -BASIC CONCEPTS IN CHEMISTRY Matter(Identification and Classification SI unit and measurement Laws of Chemical Combination MoleConcept(Evaluating) LimitingReagent Stoichiometry Art integration– poster on chemistry and alchemy | Living World Biological classification Plant Kingdom Practical: Observing the slides of Bacteria, Oscillatoria, Spirogyra; specimens of Mushroom, moss, fern. | CSO IPO, Storage Units, Mobile System Organization, Types of memories Hardware, Software, Firmware, Liveware Types of software- <ul style="list-style-type: none"> ● System software ● Application softwares ● Language processors ● utilities | Introduction to Microeconomics Activity-Flow chart of micro and macro variables | What is Psychology? Activity-Preparing the career options & scope of psychology |

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| | | | | | | NUMBER SYSTEM Numbers in base 2, 8, 16 and binary addition | | |
| MAY | <p>Prose-The Summer of the beautiful white horse</p> <p>-The Address</p> <p>Poem</p> <p>-The laburnum Top</p> <p>Writing Skill-Speech</p> <p>Activity- PPT and presentation on any one indigenous tribe of India.</p> | <p>Complex Numbers(contd.)</p> <p>Linear Inequalities</p> <p>Sequences and Series</p> <p>Activity: To demonstrate that the Arithmetic mean of two different positive numbers is always greater than the Geometric</p> | <p>Unit and measurement</p> <p>System of units</p> <p>Measurement of length</p> <p>Accuracy, precision</p> <p>Significant figures</p> <p>Errors in measurement,</p> <p>Dimensions</p> <p>Dimensional analysis and its application</p> | <p>MoleConcept</p> <p>LimitingReagent</p> <p>Stoichiometry</p> | <p>Animal Kingdom</p> <p>Morphology of flowering plants</p> <p>Practical: Study the plants of some common families.</p> <p>Study different types of inflorescence (cymose and racemose).</p> | <p>BOOLEAN ALGEBRA</p> <p>Boolean logic: NOT, AND, OR, NAND, NOR, XOR, NOT, truth tables and De Morgan's laws, Logic circuit</p> <p>BASIC PYTHON</p> <p>-Basics of Python programming: a simple "hello world" program, the process of writing a program (Interactive & Script mode), running it and print statements; simple data-types: integer, float and string.</p> | <p>Consumer's Equilibrium and Demand</p> <p>Activity-Scarcity Activity</p> | <p>Methods of Enquiry in Psychology</p> <p>Activity- Making a questionnaire</p> <p>Collecting data through personal interviews, questionnaires, & telephonic surveys</p> |

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| <p>JUL</p> | <p>Prose- -We are not afraid to die -Discovering Tut Poem—The voice of rain Writing Skill-Debate Activity-Speaking skills</p> | <p>Relations and Functions Trigonometric Functions To verify that for two sets A and B, $n(A \times B) = pq$ and the total number of relations from A to B is 2^{pq}, where $n(A) = p$ and $n(B) = q$ (ACTIVITY) To distinguish between a Relation and a Function (ACTIVITY)</p> | <p>Motion in a plane Properties of vectors Addition and subtraction of vectors Resolution of vectors Motion in a plane Relative velocity Projectile motion Uniform circular motion Laws of motion Practical Vernier callipers, Screw gauge, Activity of paper scale Newton's laws of motion Equilibrium of a particle Friction</p> | <p>Unit 3 Classification of elements and periodicity in properties <ul style="list-style-type: none"> Trends of properties Graphical representation Unit 2 structure of atom.. Practical: crystal preparation</p> | <p>Anatomy of Flowering plants Structural organisation in animals Cell: Structure and function Cell Cycle Practical: Preparation and study T.S. of dicot/monocot stem and root.</p> | <p>Computational Thinking <ul style="list-style-type: none"> Python Character Set, Token & Identifiers, Keywords, Literals, Delimiters, Operators. Introduce the notion of a variable and methods to manipulate it (concept of L-value and R-value even if not taught explicitly). data types and operators: accepting input from the console, assignment statement, expressions, operators and their precedence. Introducing conditional statement if elif else Flow of Control: introduction, use of indentation, sequential flow, conditional and iterative flow Patterns in</p> | <p>Introduction Collection, Organisation and Presentation of Data Activity-Class activity to collate data and present it as a diagram.</p> | <p>Human Development Activity-Observe a toddler and write down your observations & discuss them in class. Make a list of challenges faced by adolescents. Sensory, Attentional, and Perceptual Processes Activity-Miller's Law Experiment (Practical)</p> |
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| | | | <p>circular motion</p> <p>Banking of tracks</p> | | | <p>python</p> <p>Factorial of a number</p> <p>Introduction to Loops</p> | | |
| AUG | <p>Prose-The Silk Road</p> <p>Poem-- Childhood</p> <p>Writing Skill/ Reading comprehension- Note making</p> <p>Activity- Listening skills</p> | <p>Straight lines</p> <p>Conic Sections</p> <p>An alternative method of constructing a parabola. (ACTIVITY)</p> | <p>Work-energy power</p> <p>Work energy theorem</p> <p>Work</p> <p>Kinetic energy</p> <p>Work done by variable force</p> <p>Potential energy</p> <p>Power</p> <p>Collisions</p> <p>Systems of particles and rotational motion</p> <p>Practical</p> <p>Law of parallelogram, friction,</p> <p>Activity - To plot graph as per given data</p> <p>Centre of mass</p> <p>Motion of Centre of mass</p> <p>Vector product of two vectors</p> | <p>Unit 2 structure of atom..(contd)</p> <p>Unit 7:Redox reactions</p> <p>Research on the applications of different types of cells</p> <p>PRACTICALS – SALT ANALYSIS</p> | <p>Cell Division</p> <p>Biomolecules</p> <p>Photosynthesis in Higher Plants</p> <p>Practical:</p> <p>Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials.</p> <p>Separation of plant pigments through paper chromatography.</p> | <p>Loops continued</p> <p>Iterative Statement: for loop, range(), while loop</p> <p>break and continue statements, nested loops, suggested programs: -generating pattern, -summation of series, -finding the factorial of a positive number, etc.</p> <p>STRINGS</p> <p>Traversal, operations – concatenation, repetition, membership;</p> | <p>Mean, median and Mode</p> <p>Supply</p> <p>Activity: Supply Scavenger Hunt</p> | <p>Learning</p> <p>Activity- Movie Analysis and discussing different types of learning in the movie.</p> <p>Practical- Verbal Learning</p> |

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| | | | Angular velocity and linear velocity Torque and angular momentum Equilibrium of a rigid body Moment of inertia Dynamics of rotational motion about a fixed axis | | | functions/ methods, String slicing LIST introduction, indexing, list operations (concatenation, repetition, membership and slicing), traversing a list using loops, built-in functions/ methods nested lists, | | |
| SEP | Term 1 Exam | Term 1 Exam | <ul style="list-style-type: none"> ● Gravitation ● Kepler's laws ● TERM I EXAM ● Universal law of gravitation ● Acceleration due to gravity and its variation ● Gravitational potential energy ● Escape speed ● Earth satellite | Unit 4 Chemical Bonding and Molecular structure Activity – model making - VSEPR structures PRACTICALS – SALT ANALYSIS (anions) HY exams | Respiration in Plants Plant Growth and development Revision for Mid-term | Flow charts Term 1 Exam | Term 1 Exam | Term 1 Exam |

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| <p>OCT</p> | <p>Prose-Adventure -Birth</p> <p>Poem-Father to son</p> <p>Integrated Grammar Gap Filling/Editing/Ornamentation</p> <p>Activity- Poster on International Day of Care and Support-29 October, highlighting the role of doctors and caregivers and paying a tribute to them.</p> | <p>Limits and Derivatives</p> <p>(ACTIVITY)</p> <p>1) To find analytically</p> $\lim_{x \rightarrow c} \frac{x^2 - c^2}{x - c}$ <p>2) To verify the geometrical interpretation of Derivatives</p> | <p>Properties of solids Elastic behaviour of solids Stress and strain Stress strain curve Elastic moduli Application of elastic behaviour of materials Properties of fluids Practical Simple pendulum, Activity Principle of moments, paper bridge Surface tension Pressure Streamline flow Application of surface tension Bernoulli's principle Viscosity Reynolds number Surface tension</p> | <p>Unit 4 Chemical Bonding and Molecular structure (contd) PRACTICALS – SALT ANALYSIS(cations)</p> | <p>Breathing and exchange of gases</p> <p>Body Fluids and Circulation</p> <p>Practical: Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.</p> | <p>DICTIONARIES Definition, Creation, Accessing elements of a dictionary, add an item, modify an item in a dictionary; Traversal, functions/methods – len(), dict(), keys(), values(), items(), get(), update(), del(), delclear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted() copy();</p> <p>FUNCTION IN PYTHON</p> | <p>Producer Behaviour</p> <p>Cost</p> <p>Revenue</p> <p>Producer's Equilibrium</p> <p>Activity-Graphic organizer on types of cost</p> | <p>Memory</p> <p>Activity-Memorization of concepts and recalling the same after 5 mins, 5 days, and 10 days. Discussion of the results.</p> |
| <p>NOV</p> | <p>Prose-</p> | <p>Permutations and Combinations</p> | <p>Oscillations Practical</p> | <p>Unit 8 Organic chemistry-Some</p> | <p>Excretory Products and their Elimination</p> | <p>Tuples Definition, Creation of a</p> | <p>Correlation Index Numbers</p> | <p>Thinking Activity-</p> |

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| | <p>-Mother's Day</p> <p>Writing Skill-Advertisements</p> <p>Revision Activity- Role play</p> | <p>Probability</p> <p>1)To write the sample space, when a coin is tossed once, two times, three times and four times.</p> <p>2)To write the sample space, when a die is rolled once, twice, three and four times.</p> | <p>Terminal velocity, sonometer</p> <p>Periodic motion</p> <p>Simple harmonic motion</p> <p>Simple harmonic motion and uniform circular motion</p> <p>Velocity and acceleration in simple harmonic motion</p> <p>Force law of simple harmonic motion</p> <p>Energy in simple harmonic motion</p> <p>Some systems executing SHM</p> <p>Damped simple harmonic motion.</p> <p>Forced oscillations and resonance</p> | <p>basic principles and techniques</p> <p>Unit9 Hydrocarbons</p> <p>PRACTICALS – SALT ANALYSIS(cations)</p> | <p>Locomotion and Movement</p> <p>Neural Control</p> <p>Practical:</p> <p>Study human skeleton and different types of joints with the help of virtual images/models only.</p> | <p>Tuple, Traversal of a tuple. Operations on a tuple - concatenation, repetition, membership; function</p> <p>Nested tuple; Tuple slicing; finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple.</p> <p>Python modules- functions and libraries</p> <p>Searching Techniques Linear Search</p> | <p>Activity-Role Play</p> | <p>Think and analyze a case where a child does not recognize his name, doesn't respond to the teacher, seems in his world, and is comfortable in class. Share your thoughts.</p> |
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| DEC | Poem - The Tale of melon city Grade 12 - The last lesson -My mother at sixty six | Binomial Theorem (ACTIVITY) To construct a Pascal's Triangle and to write binomial expansion for a given positive integral exponent. Matrices (CLASS XII) | Waves Transverse and longitudinal waves Displacement relation in a progressive wave Speed of a travelling wave Principle of superposition of waves Interference of waves Reflection of waves, standing waves, Oscillation of a string, open and closed pipe Beats | Unit 9 Hydrocarbons (contd) Unit 6 Equilibrium PRACTICALS – SALT ANALYSIS(cation s) Volumetric -quantitative analysis | Chemical control and Coordination | DIGITAL FOOTPRINTS DIGITAL PROTECTION CYBER CRIME CYBER SAFETYE WASTE MANAGEMENT TECHNOLOGY AND SOCIETY PROJECTS INTRODUCTION TO MYSQL | Forms of Market and Price Determination under perfect competition with simple applications Activity-Comic strip on a different types of market | Motivation and Emotion Activity- List down the top 5 motivators in your life. Share your experiences of tough & difficult situations. |
| JAN | Revision | Determinants (CLASS XII) | Revision | Unit 5 Thermodynamics Practical exams | | Revision MySQL (Class XII) | India on the eve of Independence(XII) | XII Psychological Disorders |

