

SYLLABUS OF CLASS X (2022 – 2023)

ENGLISH

| MONTH | TOPIC |
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| APRIL | Literature: A Letter to God, A Triumph of Surgery, Dust of Snow, Fire and Ice Writing: Letter to the Editor Grammar: Tenses, Modals, ASL |
| MAY | Literature: The Thief's story, Nelson Mandela, A Tiger in the Zoo Writing: Story Writing |
| JULY | Literature: Two stories about flying, From the Diary of Anne Frank, How to tell wild animals, The Midnight Visitor Writing: Inquiry Letter Grammar: Subject- verb concord ASL |
| AUGUST | Literature: Amanda, The Ball Poem, Footprints without feet, The Making of a Scientist Writing: Story, Analytical Paragraph based on data, chart, Outline and cues Grammar: Reported Speech ASL |
| SEPTEMBER | Revision |
| OCTOBER | Literature: The Book that saved the Earth, Fog, The Necklace Writing: Complaint Letter ASL |
| NOVEMBER | Literature : Glimpses of India, The Trees, Mijbil the otter, A question of trust, Writing: Placing order letters Grammar: Determiners |
| DECEMBER | Literature: Madam rides the bus, The Tale of Custard the Dragon, The Sermon at Benaras, The Proposal,(Play) Bholi, For Anne Gregory ASL |

HINDI

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| अप्रैल | साहित्य | नेताजीकाचश्मा -स्वयंप्रकाश |
| | | सूरदास |
| | | बालगोबिनभगत -रामवृक्षबेनीपुरी |
| | व्याकरण | रचनाकेआधारपरवाक्यभेद, पत्र |
| मई | साहित्य | माताकाअँचल-शिवपूजनसहाय |
| | व्याकरण | वाच्य |
| जुलाई | साहित्य | लखनवीअंदाज़ - यशपाल |
| | व्याकरण | पदपरिचय, रस, अपठितगद्यांश, अपठितकाव्यांश |
| अगस्त | साहित्य | मानवीयकरुणाकीदिव्यचमक, (सर्वेश्वरदयालसक्सेना) |
| | | निराला (उत्साह, अटनहींरहीहै) |
| | | जॉर्जपंचमकीनाक- कमलेश्वर |

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| | | नागार्जुन (यहदंतुरितमुसकान, फ़सल) |
| | व्याकरण | विज्ञापनलेखन, अनुच्छेदलेखन, शुभकामनासन्देशलेखन |
| सितम्बर | साहित्य | एककहानीयहभी - मन्नूभंडारी |
| | व्याकरण | पुनरावृत्ति |
| अक्तूबर | साहित्य | तुलसीदास (राम, लक्ष्मण, परशुरामसंवाद) |
| | व्याकरण | अनुच्छेद, लेखन, शुभकामनासन्देशलेखन |
| नवम्बर | साहित्य | सानासानाहाथजोड़ि - मधुकांकरिया |
| | | छायामतछूना- गिरिजाकुमारमाथुर |
| | व्याकरण | शुभकामनासन्देशलेखन |
| दिसम्बर | साहित्य | ऋतुराज (कन्यादान) |
| | | नौबतखानेमेंइबादत- यतीन्द्रमिश्र |
| | व्याकरण | विज्ञापनलेखन |
| जनवरी | साहित्य | संगतकार- मंगलेशडबराल |
| | व्याकरण | पुनरावृत्ति |

PORTION FOR PERIODIC TEST

सामयिकपरीक्षा - I

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| साहित्य | नेताजीकाचश्मा, सूरदास, माताकाअँचल |
| व्याकरण | रचनाकेआधारपरवाक्यभेद, वाच्य, अपठितगद्यांश |

सामयिकपरीक्षा- II

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| साहित्य | बालगोबिनभगत, ऋतुराज (कन्यादान) तुलसीदास (राम, लक्ष्मण, परशुरामसंवाद) |
| व्याकरण | पदपरिचय, अपठितगद्यांश, अपठितकाव्यांश |

MATHEMATICS

| MONTH | TOPIC |
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| APRIL | <p>PAIR OF LINEAR EQUATIONS IN TWO VARIABLES</p> <p>Pair of linear equations in two variables and graphical method of their Solution, consistency/inconsistency.</p> <p>Algebraic conditions for number of solutions. Solution of a pair of linear equations in two Variables algebraically – by substitution, by elimination. Simple situational problems.</p> <p>REALNUMBERS</p> <p>Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples, Proofs of irrationality of $\sqrt{2}$, $\sqrt{3}$ & $\sqrt{5}$ etc.</p> |
| MAY | <p>POLYNOMIALS</p> <p>Zeros of a polynomial. Relationship between zeros and coefficients of quadratic</p> |

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| <p>JULY</p> | <p>QUADRATIC EQUATIONS</p> <p>Represent the equation in general form as $ax^2 + bx + c = 0$ where a, b, c are real numbers and $a \neq 0$</p> <p>Solve the quadratic equation by factorization, completing the square method and by quadratic formulae method.</p> <p>Calculate the discriminant to find the nature of roots and apply the same to problem solving.</p> <p>ARITHMETIC PROGRESSION</p> <p>Recognize the pattern in a series. Identify the first term, the common difference and learn to find the nth term and sum of n terms of an A.P.</p> <p>PROBABILITY</p> <p>Classical definition of probability. Simple problems on finding the probability of an event.</p> |
| <p>AUGUST</p> | <p>TRIANGLES</p> <p>Definitions, examples, counter examples of similar triangles.</p> <ol style="list-style-type: none"> 1.(Prove) If a line is drawn parallel to one side of a triangle to intersect the other two Sides in distinct points, the other two sides are divided in the same ratio. 2.(Motivate) If a line divides two sides of a triangle in the same ratio, the line is parallel To the third side. 3.(Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar. 4.(Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar. 5.(Motivate) If one angle of a triangle is equal to one angle of another triangle and the Sides are proportional then the two triangles are similar. <p>CIRCLES</p> <p>Tangent to a circle at, point of contact</p> <ol style="list-style-type: none"> 1. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact. 2. (Prove) The lengths of tangents drawn from an external point to a circle are equal. |
| <p>SEPTEMBER</p> | <p>REVISION</p> <p>FIRST TERMINAL EXAMINATION</p> |
| <p>OCTOBER</p> | <p>INTRODUCTION TO TRIGONOMETRY</p> <p>Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios whichever are defined at 0° and 90°. Values of the trigonometric ratios of 30°, 45° and 60°. Relationships between the ratios.</p> <p>TRIGONOMETRIC IDENTITIES</p> <p>Proof and applications of the identity $\sin^2 A + \cos^2 A = 1$. Only simple identities to be given.</p> <p>APPLICATIONS OF TRIGONOMETRY</p> <p>Angle of elevation, Angle of Depression.</p> <p>Simple problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only 30°, 45°, and 60°.</p> |

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| NOVEMBER | <p>AREAS RELATED TO CIRCLES</p> <p>Area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of 60°, 90° and 120° only.)</p> <p>2. SURFACE AREAS AND VOLUMES</p> <p>Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.</p> |
| DECEMBER | <p>STATISTICS</p> <p>Mean, median and mode of grouped data (bimodal situation to be avoided).</p> <p>COORDINATE GEOMETRY</p> <p>Concepts of coordinate geometry, graphs of linear equations. Distance formula.</p> <p>Section formula (internal division).</p> |

PHYSICS

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| MARCH | <p>LIGHT - REFLECTION</p> <ul style="list-style-type: none"> ● Reflection by spherical mirrors ● Terms associated with mirrors ● Image formation by spherical mirrors using ray diagrams ● Mirror formula and magnification produced by mirrors |
| APRIL | <p>LIGHT - REFRACTION OF LIGHT</p> <ul style="list-style-type: none"> ● Refraction by spherical lenses ● Image formation by spherical lenses |
| MAY | <p>LIGHT - REFRACTION OF LIGHT.</p> <ul style="list-style-type: none"> ● Law of refraction of light ● Refractive index ● Lens formula and power of a lens |
| JULY | <p>HUMAN EYE AND THE COLOURFUL WORLD.</p> <ul style="list-style-type: none"> ● Functioning of a lens in human eye ● Defect of vision and their correction |
| AUGUST | <p>HUMAN EYE AND COLOURFUL WORLD</p> <ul style="list-style-type: none"> ● Refraction of light through prism ● Dispersion of light ● Scattering of light |

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| SEPTEMBER | REVISION, FIRST TERMINAL EXAM |
| OCTOBER | CURRENT ELECTRICITY. <ul style="list-style-type: none"> ● Potential difference and electric current ● Ohm's Law and resistance ● Series and parallel combination of resistance ● Heating effect of electric current and Electric power |
| NOVEMBER | MAGNETIC EFFECTS OF AN ELECTRIC CURRENT. <ul style="list-style-type: none"> ● Magnetic field and field lines ● Magnetic field due to straight conductor , circular conductor or solenoid ● Fleming 's left hand rule ● Alternating and direct current ● Domestic circuit |
| DECEMBER | REVISION |

CHEMISTRY

| MONTH | TOPIC |
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| APRIL | CHEMICAL REACTIONS AND EQUATIONS: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction. |
| MAY | CHEMICAL REACTIONS AND EQUATIONS: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, endothermic exothermic reactions, oxidation and reduction. ACIDS , BASES AND SALTS: Their definitions in terms of furnishing of H ⁺ and OH ⁻ ions, General properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris |
| JULY | ACIDS , BASES AND SALTS: Their definitions in terms of furnishing of H ⁺ and OH ⁻ ions, General properties, examples and uses, neutralization, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris |
| AUGUST | METALS AND NON METALS: Physical and chemical Properties of metals and non-metals ; Reaction of metals and non metals with air, water, acids ; Amphoteric oxides; Reactivity series. |

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| SEPTEMBER | METALS AND NON METALS (contd.) Formation and properties of ionic compounds , Reaction of metals and non metals, Electron dot structures. |
| OCTOBER | METALS AND NON METALS (contd.) Basic metallurgical processes; Enrichment of ores , Extracting metals low in the activity series, Extracting metals in the middle of the activity series, Extracting metals towards the top of the activity series middle ;Refining of metals, Corrosion and its prevention. |
| NOVEMBER | CARBON AND ITS COMPOUNDS: Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference between saturated hydro carbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents. |
| DECEMBER | CARBON AND ITS COMPOUNDS: Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference between saturated hydro carbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents. |
| JANUARY | REVISION |
| FEBRUARY | FINAL TERM |

BIOLOGY

| MONTH | TOPIC |
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| MARCH | Chapter 6. Life processes. What are life processes? nutrition; respiration; transportation; excretion. |
| APRIL | Chapter 6. continuing.... |
| MAY | Chapter 6. continuing... |
| JULY | Chapter 7. Control and coordination. Animals-nervous system; coordination in plants; hormones in animals. |
| AUGUST | Chapter 7. continuing.... Revision. |
| SEPTEMBER | First terminal examination. |

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| OCTOBER | Chapter 8. How do organisms reproduce? Do organisms create exact copies of themselves? Modes of reproduction used by single organisms; sexual reproduction. |
| NOVEMBER | Chapter 9. Heredity and evolution. Accumulation of variation during reproduction; heredity. |
| DECEMBER | Chapter 15. Our environment. Ecosystem-What are its components? How do our activities affect the environment? Revision. |

HISTORY/ POLITICAL SCIENCE

| MONTH | TOPIC |
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| APRIL | <p><u>HISTORY</u> The Rise of Nationalism in Europe:</p> <ul style="list-style-type: none"> • The French Revolution and the Idea of the Nation • The Making of Nationalism in Europe • The Age of Revolutions:1830-1848 • The Making of Germany and Italy • Visualizing the Nation • Nationalism and Imperialism <p><u>POLITICAL SCIENCE</u> Power Sharing:</p> <ul style="list-style-type: none"> • Belgium and Sri Lanka • Majoritarianism in Sri Lanka • Accommodation in Belgium • Why power sharing is desirable? • Forms of Power Sharing |
| MAY | <p><u>POLITICAL SCIENCE</u> Federalism:</p> <ul style="list-style-type: none"> • What is Federalism? • What make India a Federal Country? • How is Federalism practiced? • Decentralization in India |
| JULY | <p><u>HISTORY</u> Nationalism in India:</p> <ul style="list-style-type: none"> • The First World War, Khilafat and Non -Cooperation • Differing Strands within the Movement • Towards Civil Disobedience • The Sense of Collective Belonging |

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| | <p><u>POLITICAL SCIENCE</u> Gender, Religion and Caste:</p> <ul style="list-style-type: none"> • Gender and Politics-Public/Private division, Women’s political representation • Religion, Communalism and Politics –Communalism, Secular State(excluding image on page 46, 48, 49 of NCERT Textbook–Democratic Politics–II – reprinted edition2021) • Caste and Politics - Caste inequalities, Caste in politics, Politics in caste |
| AUGUST | <p><u>HISTORY</u> The Making of a Global World:</p> <ul style="list-style-type: none"> • The Pre-modern world • The Nineteenth Century (1815-1914) • The Interwar Economy • Rebuilding a World Economy : The Post-War Era |
| SEPTEMBER | <p><u>POLITICAL SCIENCE</u> Political Parties:</p> <ul style="list-style-type: none"> • Why do we need Political Parties? –Meaning, Functions, Necessity • How many parties should we have? • National Parties • State Parties • Challenges to Political Parties • How can Parties be reformed? |
| OCTOBER | <p><u>HISTORY</u> The Age of Industrialization:</p> <ul style="list-style-type: none"> • Before the Industrial Revolution • Hand Labour and Steam Power • Industrialization in the Colonies • Factories Come Up • The Peculiarities of Industrial Growth • Market for Goods |
| NOVEMBER | <p><u>HISTORY</u> Print Culture and the Modern World:</p> <ul style="list-style-type: none"> • The First Printed Books • Print Comes to Europe • The Print Revolution and its Impact • The Reading Mania • The Nineteenth Century • India and the World of Print • Religious Reform and Public Debates • New Forms of Publication • Print and Censorship |

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| | <p><u>POLITICAL SCIENCE</u></p> <p>Outcomes of Democracy:</p> <ul style="list-style-type: none"> • How do we assess democracy's outcomes? • Accountable, responsive and legitimate government • Economic growth and development • Reduction of in equality and poverty • Accommodation of social diversity • Dignity and freedom of the citizens |
| DECEMBER | REVISION |

GEOGRAPHY

| MONTH | TOPIC |
|----------------------------|---|
| MARCH / APRIL | <p>CHAPTER 1 – RESOURCES AND DEVELOPMENT</p> <p>Types of Resources, Development of Resources, Resources Planning in India, Land Resources, Land Utilization, Land use Pattern in India, Land Degradation and Conservation Measures, Soil as a Resource, Classification of Soils, Soil Erosion and Soil Conservation.</p> |
| MAY / JULY | <p>CHAPTER 2 – FOREST AND WILDLIFE</p> <p>Biodiversity or Biological Diversity, Flora and Fauna in India, Vanishing Forests, Asiatic Cheetah : Where did they go?, The Himalayan Yew in trouble, Conservation of Forest and Wildlife in India, Project Tiger – Types and distribution of forests and wildlife Resources, Community and Conservation.</p> |
| AUGUST | <p>CHAPTER 3 : WATER RESOURCES</p> <p>Water Scarcity and the Need for Water Conservation and Management, Multi Purpose River Projects and Integrated Water Resources Management, Rain Water Harvesting</p> |
| SEPTEMBER | <p>CHAPTER 4 – MINERALS AND ENERGY RESOURCES</p> <p>What is a mineral?, Mode of Occurrence of Minerals, Ferrous and Non Ferrous Minerals, Non – Metallic Minerals, Rock Minerals, Conservation of Minerals, Energy Resources, Conventional and Non Conventional, Conservation of Energy Resources.</p> |
| OCTOBER | <p>CHAPTER 5 – MANUFACTURING INDUSTRIES</p> <p>Importance of manufacturing, Contribution of Industry to National Economy, Industrial Location, Classification of Industries, Spatial distribution, industrial pollution and environmental degradation, Control of Environmental Degradation</p> |
| NOVEMBER / DECEMBER | <p>CHAPTER 6 – LIFE LINES OF NATIONAL ECONOMY</p> <p>Transport – Roadways, railways, Pipelines, Waterways, Airways, Communication, International Trade, Tourism as a Trade</p> |

ECONOMICS

| MONTH | TOPIC |
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| MARCH / APRIL | CHAPTER 1 – DEVELOPMENT What Development Promises, Different people different goals, Income and other goals, National Development, How to compare different countries or states?, Income and other criteria, Public Facilities, Sustainability of development. |
| JULY/ AUGUST | CHAPTER 2 – SECTORS OF THE INDIAN ECONOMY Sectors of Economic Activities, Comparing the three sectors, Primary, Secondary and Tertiary Sectors in India, Division of sectors as organized and unorganized, Sectors in terms of ownership : Public and Private Sectors |
| SEPTEMBER / OCTOBER | CHAPTER 3 – MONEY AND CREDIT Money as a medium of exchange, Modern forms of money, Loan activities of Banks, Two different credit situation, Terms of credit, Formal sector credit in India, Self Help Groups for the poor. |
| NOVEMBER / DECEMBER | CHAPTER 4 – GLOBALIZATION AND THE INDIAN ECONOMY Production across countries, Interlinking production across countries, Foreign Trade and Integration of markets, What is Globalization?, Factors that have enabled Globalization, World Trade Organisation, Impact of Globalization on India, The Struggle for a fair Globalization. CHAPTER 5 – CONSUMER RIGHTS TO BE DONE AS PROJECT WORK |