

SOCIAL SCIENCE

Unit-17

- India Size and Location, Physical Features of India, Main Geographical Distribution,
- Drainage System in India, Rivers of Himalayas, Rivers of Peninsular India,
- Climate of India, Climate Control, Arrival and Return of Indian Monsoon, Natural Vegetation, Types of Forests,
- Solar System, Sun, Planets, Satellites, asteroid , Meteorites,
- Globe, Latitude and Longitude, Longitude and Time Calculation, Earth's Heat Zones, Rotation and Revolution motions of the Earth, and Seasons,
- Maps - Physical Map, Political Map, Thematic Map, Components of the map - Scale, direction, symbols, sketch,
- Domains of the earth - Hydrosphere, Lithosphere, Atmosphere, Biosphere, components of environment, natural environment, human environment,
- Internal structure of the earth, Endogenetic force and Exogenetic force of the earth, sudden force and Diastrophic forces,
- Major Landform - Erosional and Depositional landform by river ,wind, sea wave , glaciers ,underground water,
- Composition of Atmosphere- Structure of the Atmosphere, weather and climate, air pressure, wind, major air pressure belts,
- Types of rain fall forms of precipitation, water distribution, waves, tsunami, tides, ocean currents
- Meaning of resource- types of resources, resource planning, land resources, land use pattern in India, land degradation and measures of conservation,
- Classification of soils in India, soil erosion and conservation,

- Multipurpose river projects in India and integrated water resources management, rain water harvesting.
- Types of Agriculture – Early Subsistence Agriculture, Intensive Subsistence Agriculture, Commercial Agriculture,
- Main Crops of India – Rice, Wheat, Bajra, Maize, Tea, Coffee, Rubber, Jute
- Minerals- Metallic and Non-metallic Minerals, Distribution of Minerals, Mineral Conservation

Unit-18

- Meaning of History, Sources of Ancient Indian History – Archaeological Source, Literary Source, Epic, Foreign Traveller's Account, Inscription, Numismatics.
Paleolithic, Chalcolithic culture
- Harappan culture (Indus Valley Civilization)
- Development and basic study of religious, cultural and philosophical ideas: beginning of Vedic Era, Buddhism, Jainism, Vaishnavism, Shaivism. Sixteen Mahajanapadas, rise of Magadh.
- Ancient Indian dynasties – Haryanka-Shishunaga, Maurya, Kushan, Gupta, Vardhana, Chola, Chalukya, Pallava.
- Rise of Rajputs - Gurjar Pratiharas, Chandela, Rashtrakuta, Parmara, Chauhan, & Muslim invasions.
- Delhi Sultanate, Vijayanagara Empire and Mughal Empire, rise of Marathas
- Religious-Social Movements: Bhakti -Sufi Movement, Sikhism
- Sources of Modern Indian History, Arrival of Europeans in India (Portuguese, Dutch, French, British), establishment of British rule and their wars in Indian territories, British policies, their economic and administrative structure
- Indian Renaissance – socio-religious movements, and main thinkers
- Indian National Movement- Freedom Struggle of 1857, Major Tribal Revolts, Peasant Movements, Indian National Congress -Ideology and Program, Revolutionary activities, Gandhian Mass Movement, National Movement
Prominent personalities.

- Constitutional development and making of Indian constitution (1773-1950 A.D.)
- French Revolution, Unification of Germany, Unification of Italy, Socialism in Europe Russian Revolution, first World War, League of Nations, second World War, United Nations
- Nazism, Fascism
- Industrialization

Unit 19

- Understanding of Political Theory- Meaning, Definition, Importance,
- Concept of State- Meaning, Definition, Importance, Elements, Various theories of the origin of the state
- Basic Political Concepts- Liberty, Equality, Social Justice and Rights
- Democracy and Diversity -Meaning, Features Similarities, Dissimilarities and Divisions, Harmony and Conflict in Diversity
- Constitution of India- formation, process of making, preamble, sources, features, fundamental rights, fundamental duties, directive principles, constitutional amendment process
- Functioning of Indian Democracy- Administrative System- Federal Government, Division of Administrative Powers between Central and State Government, Structure of Government- Legislature, Executive, Judiciary, Local Self-Government- 73rd and 74th Constitutional Amendment, National and State Human Rights Commission
- Planning (Five Year Plans) and NITI Aayog in India
- Major challenges of democracy- population explosion, unemployment, communalism, terrorism, drug abuse, factors hindering the success of democracy and ways to remove them
- Election in India- Constitution of Election Commission, functions, election process, reforms, challenges, role of women in elections.
- National and regional political parties, Pressure Groups and Interest Groups

- Major organizations of the world - SAARC , ASEAN, Shanghai Co-operation Organization,G-20 & G-8

Unit - 20

- Economics -Meaning, Definition and Importance, Department of Economics-Consumption,Production,Exchange,Distribution & public-finance
- Utility - Meaning and Types- (Marginal Utility, Total Utility and Average Utility) and their relations
- Production- Meaning and Types (Marginal Production, Total Production and Average Production) , Means of Production.
- Demand and Supply- Meaning, Law and Elasticity of Demand and Elasticity of Supply
- Cost and Revenue - Meaning and Types
- Measures of Central Tendency -Mean, Median and Mode
- Economy -Meaning and Types of Economy (Capitalistic, Socialistic and Mixed),
Central Problems of an Economy
- Sectors of Economy - (Primary, Secondary, Tertiary)
- Money and Banking – Barter System - Meaning and its Problem, Money and its Functions, Importance of Bank -Central Bank and Commercial bank and their Functions
- National Income -Meaning and related concepts (Gross Domestic Product (GDP), Gross National Product (GNP), Net Domestic Product (NDP), Net National Product (NNP), Per Capita Income), Measurement of National income International trade -Meaning of Balance of Trade and Balance of Payment, Items of BOP, Causes of Unfavorable BOP, Import-Export-Importance in Economic Development
- Liberalization, Privatization and Globalization (LPG) Policy in India-Importance and its effect

Note- Determination of questions will be of class-12 level.

UNIT-14-Chemistry

Hydrocarbon- classification ,alkanes, alkenes and alkynes- nomenclature and isomerism, physical and chemical properties of organic compound, properties of ethanol and ethanoic acid ,aromatic hydrocarbon : benzene -nomenclature and isomerism ,physical and chemical properties ,carcinogenicity and toxicity, soaps and detergents.

UNIT-15-Physics

Force, Mechanics and Heat-

Unit System,, fundamental and derived units, distance, displacement, speed, velocity, acceleration, equations of uniformly accelerated motion, laws of motion, momentum, conservation of momentum, impulse, static and kinetic friction, work, energy, power, kinetic and potential energy, law of conservation of energy, Universal law of gravitation, acceleration due to gravity, pressure in fluids, effect of gravity on pressure, buoyancy, Archimedes' principle, temperature and heat, different scales of measurement of temperature and their relationship, specific heat, conduction, convection, radiation, change of state and latent heat

UNIT-16-Physics

Electricity, Magnetism, Light and Sound-

Electric charge, Coulomb's law, electric field lines and their properties, electric current, conductors and insulators, Ohm's law, resistance of a conductor, bar magnet, magnetic field, magnetic field lines and their properties, magnetic effect of electric current, Oersted's Experiment, Force on a current carrying conductor in a uniform magnetic field, Fleming's left hand rule, Electric Motor(DC), Electromagnetic Induction, Fleming's Right Hand Rule, Reflection of light, Spherical mirrors, Refraction of light and its laws, Total Internal reflection, Optical fiber, Lens, Lens formula, power of a lens, Sound waves, Echo,

- Human endocrine System: - Different types of Endocrines glands and their hormones and hormonal functions.
 - Cell and Different cell organelles- Structure and functions of Different cell organelles, plant and animal tissues and types
 - Bio-molecules- structure and function of Carbohydrate, protein, lipid, nucleic acid, enzyme and vitamin
 - Origin of life, biological evolution, genetics and variation
 - reproductive health and need, sexually Transmitted Diseases (STD) and its prevention, birth Control and methods
 - Component of Atmosphere, Ecosystem and its component , Types of pollution, Biodiversity
 - Human health and pathogens, parasites Causing human diseases
 - Basic concept of Immune science, vaccine, cancer, HIV, AIDS,
- General Problems of adolescence stage, drug and alcohol addiction

UNIT-12

BIOLOGY

- Morphology of Flowering Plants - Morphology of different parts of flowering plants- root, stem, Leaf, inflorescence, flower, fruit and seed.
- Modification of root, stem and leaf.
- Anatomy of flowering plants- Anatomy and functions of tissue systems in monocot and dicot plants.
- structure of Monocotyledonous and dicotyledonous root
- structure of Monocotyledonous and dicotyledonous stem
- Structure of Monocotyledonous and dicotyledonous leaf. And secondary growth
- Photosynthesis in higher plants - Autotrophic nutrition, photosynthetic pigments, cyclic and non-cyclic photo-phosphorylation, photorespiration, factors affecting photosynthesis.
- Respiration in plants, Transportation in plants
- Plant growth and development - Seed germination, plant growth regulators
- Sexual reproduction in flowering plants.- flower Structure, development of male and female gametophytes, pollination, double fertilization, embryo and endosperm development. development of seed and fruit.
- Crop production and management
- Conservation of plant and animals
- Forest conservation, soil and types of soil
- Different methods of garbage storage and disposal

UNIT-13

Chemistry

Atomic structure- charged particles in matter, atomic model of Thomson, Rutherford and Bohr, distribution of electrons in various shells ,valency, atomic number and atomic mass , isotopes and isobars, Bohr's model of hydrogen atom, developments leading to the Bohr's model of the atom, atomic spectra ,Quantum mechanical model of atom.

Subject-(science)

UNIT -11

BIOLOGY

- Biological classification-Plant Kingdom Classification, Animal kingdom Classification
- Structure and functions of digestive, respiratory, excretory, circulatory, Reproductive and Nervous System of human
- Muscles control and coordination

Properties of triangles, Congruence of Triangles, Criteria for Congruence of Triangles, Inequalities in a Triangle,

Similar Figures, Similarity of Triangles, Criteria for Similarity of Triangles, Areas of Similar Triangles, Pythagoras Theorem,

Quadrilaterals, Angle Sum Property of a Quadrilateral, Types of Quadrilaterals, Properties of a Parallelogram, Conditions for a Quadrilateral to be a Parallelogram, Mid-point Theorem, Areas of Parallelograms and Triangles, Figures on the same Base and between the same Parallels, Parallelograms on the same Base and between the same Parallels, Triangles on the same Base and between the same Parallels,

Circle and its related terms, Angle Subtended by a Chord at a Point, Perpendicular from the Centre to a Chord, Circle through Three Points, Equal Chords and Their Distances from the Centre, Angle Subtended by an Arc of a Circle, Cyclic Quadrilaterals, Tangent to a Circle, Number of Tangents from a Point on a Circle,

Coordinate Geometry (Two Dimensional), Cartesian System, Plotting a Point in the Plane if its Coordinates are Given, Distance Formula, Section Formula, Area of a Triangle.

UNIT 9

MENSURATION: Perimeter and Area, Heron's Formula, Area of a Triangle – by Heron's Formula, Applications of Heron's Formula in finding Areas of Quadrilaterals,

Areas Related to Circles, Perimeter and Area of a Circle, Areas of Sector and Segment of a Circle, Areas of Combinations of Plane Figures.

Surface Area of a Cuboid, Surface Area of a Cube, Surface Area of a Right Circular Cylinder, Surface Area of a Right Circular Cone, Surface Area of a Sphere, Volume of a Cuboid, Volume of a Cube, Volume of a Right Circular Cylinder, Volume of a Right Circular Cone, Volume of a Sphere,

Surface Area of a Combination of Solids, Volume of a Combination of Solids, Conversion of Solid from One Shape to Another, Frustum of a Cone.

UNIT 10

STATISTICS AND PROBABILITY: Statistics, Collection of Data, Data Handling, Presentation of Data, Graphical Representation of Data, Measures of Central Tendency,

Mean of Grouped Data, Mode of Grouped Data, Median of Grouped Data, Graphical Representation of Cumulative Frequency,

UNIT 7

NUMBER SYSTEMS: Number Pattern, Numeric problems on Fundamental operations $(+, -, \times, \div)$, Numeric problems on Time, Measurement and Money, Place value, Hindu – Arabic Numeral System, International System of Numeration, Comparing Numbers, Large numbers in practice, Roman numerals, Whole Numbers, The Number Line, Properties of Whole Numbers, Patterns in Whole Numbers, Factors and Multiples, Prime and Composite numbers, Even and Odd numbers, Tests for divisibility of numbers, Common factors and Common multiples, Prime factorization, Highest Common Factor, Lowest Common Multiple, Integers, Fractions, Decimals, Rational numbers, Squares and Square roots, Cube and Cube roots, Exponents and Powers, Irrational numbers, Real Numbers and their Decimal Expansions, Representing Real Numbers on the Number Line, Operations on Real Numbers, Laws of Exponents for Real Numbers, The Fundamental Theorem of Arithmetic.

RATIO AND PROPORTION: Comparing quantities, Ratio and Proportion, Direct and Indirect Proportion.

ALGEBRA: Algebraic expressions, Factorization of Algebraic expressions, Polynomials, Polynomials in One Variable, Zeros of a Polynomial, Remainder Theorem, Factorisation of Polynomials, Algebraic Identities, Geometrical Meaning of the Zeroes of a Polynomial, Relationship between Zeroes and Coefficients of a Polynomial, Division Algorithm for Polynomials, Linear Equations, Linear Equations in one variable, Solution of a Linear Equation, Graph of a Linear Equation in Two Variables, Equations of Lines Parallel to the x-axis and y-axis, Pair of Linear Equations in Two Variables, Graphical Method of Solution of a Pair of Linear Equations, Algebraic Methods of Solving a Pair of Linear Equations, Equations Reducible to a Pair of Linear Equations in Two Variables, Quadratic Equations, Solution of a Quadratic Equation by Factorisation, Solution of a Quadratic Equation by Completing the Square, Nature of the Roots.

UNIT 8

GEOMETRY AND COORDINATE GEOMETRY: Symmetry, Lines and Angles, Intersecting Lines and Non-intersecting Lines, Pairs of Angles, Parallel Lines and a Transversal, Lines Parallel to the Same Line, Triangles, Types of Triangles, Angle Sum Property of a Triangle,

Subject-English

The questions will be testing the depth of understanding and application of these concepts at the Higher Secondary Level.

Unit-4

Reading: Unseen Passage-Prose/poetry (Factual, descriptive or literary) to assess comprehension, interpretation, inference and Vocabulary-Synonyms, Antonyms

Unit-5

One-word substitution, Prefix, suffix

Parts of Speech-Noun, Pronoun, Prepositions, Conjunctions, Verb, Adverbs, Adjectives, Determiners,

Articles, Degree).

Unit-6

Tense, Subject-verb agreement, Transformation of sentences-affirmative, negative, Interrogative, Kinds of Sentences-Simple, Compound Sentences, Complex Sentences

विषय -हिन्दी

सम्मिलित पाठ्यक्रम में से प्रश्नों के माध्यम से अन्तर्निहित अवधारणाओं /संकल्पनाओं की (कक्षा बारह स्तर की)गहन समझ का आकलन किया जाएगा।

इकाई-1

अपठित गद्यांश - व्याख्या, बोधगम्यता, व्याकरण एवं निष्कर्ष क्षमता आदि के आकलन हेतु अपठित बोध (तथ्यात्मक , वर्णात्मक एवं साहित्यिक)

अपठित पद्यांश -भावार्थ ,बोधगम्यता, व्याकरण एवं निष्कर्ष क्षमता आदि के आकलन हेतु अपठित बोध

इकाई- 2

हिन्दी वर्णमाला एवं वर्णों के उच्चारण स्थान , वर्तनी सम्बन्धी अष्टद्विर्ग्यो ,संज्ञा-लिंग ,वचन तथा कारक, सर्वनाम,क्रिया, विशेषण, क्रिया-विशेषण ,अव्यय, तत्सम शब्द , तद्भव शब्द, देशज शब्द , विदेशी शब्द ,पर्यापवाची ,विलोम शब्द , अनेक शब्दों /वाक्यांश के लिए एक शब्द

इकाई-3

वाक्य संरचना- वाक्य के भेद (रचना के आधार पर, अर्थ के आधार पर) , वाक्य विश्लेषण ,संश्लेषण एवं रूपांतरण, वाक्य रचना संबंधी अष्टद्विर्ग्यो , मुहावरे एवं लोकोक्तिर्ग्यो , संधि, समास, उपसर्ग, प्रत्यय,