MAHARAJA AGRASEN MODEL SCHOOL
MONTHLY SYLLABUS PLAN
SESSION: (2025-2026)
CLASS – XI

ENGLISH CORE(301)

The general objectives at this stage are to:

● listen and comprehend live as well as recorded oral presentations on a variety of topics

● develop greater confidence and proficiency in the use of language skills necessary for social and academic purpose to participate in group discussions and interviews, by making short oral presentation on given topics

● perceive the overall meaning and organization of the text (i.e., correlation of the vital portions of the text)

● identify the central/main point and supporting details, etc., to build communicative competence in various lexicons of English

● promote advanced language skills with an aim to develop the skills of reasoning, drawing inferences, etc. through meaningful activities

● translate texts from mother tongue(s) into English and vice versa

● develop ability and acquire knowledge required in order to engage in independent reflection and enquiry

● read and comprehend extended texts (prescribed and non-prescribed) in the following genres: science fiction, drama, poetry, biography, autobiography, travel and sports literature,etc.

● text-based writing (i.e., writing in response to questions or tasks based on prescribed or unseen texts), understanding and responding to lectures, speeches, etc.

● write expository / argumentative essays, explaining or developing a topic, arguing a case, etc, write formal/informal letters and applications for different purposes

● make use of contextual clues to infer meanings of unfamiliar vocabulary

● select, compile and collate information for an oral presentation

● produce unified paragraphs with adequate details and support

● use grammatical structures accurately and appropriately

● write items related to the workplace (minutes, memoranda, notices, summaries, reports etc.

● filling up forms, preparing CV, e-mail messages., making notes from reference materials,recorded talks etc.

The core course should draw upon the language items suggested for class IX-X and delve deeper into their usage and functions. Particular attention may, however, be given to the following areas of grammar:

· The use of passive forms in scientific and innovative writings.

· Convert one kind of sentence/clause into a different kind of structure as well as other items to exemplify stylistic variations in different discourses modal auxiliaries- uses based on semantic considerations.

Prescribed Books:

HORNBILL , SNAPSHOTS

Important link

https://ncert.nic.in/textbook.php?kesp1=0-6

https://ncert.nic.in/textbook.php?kehb1=0-14

https://drive.google.com/drive/folders/1bMx26bhL27CwR44mBZ-X0QRJtCJ06oew

MONTH WISE SYLLABUS PLAN

April

Hornbill Portrait Of A Lady

Poem Photograph

Poster Making, Integrated Grammar Practice

May

Snapshots Summer Of Beautiful White Horse

Note Making, Advertisements

Integrated Grammar Practice

July

Hornbill: Laburnum Top , Discovering Tut

Writing Skill - Advertisement , Speech

August

Hornbill- We Are Not Afraid To Die

Snapshots -Mother's Day, Birth

Grammar- Modals, Determiners, Tenses

Writing Skill- Speech

September

Hornbill- Poem Childhood

Snapshots - The Address

Writing Skill – Comprehension Passages, Business Letters

October

Hornbill - Adventure,Poem -Voice Of The Rain

Snap Shots -Poem -Tale Of A Melon City

Writing Skill- Debate

November

Silkroad

Snapshots-Birth

Grammar- Integrated

December

Hornbill - Father To Son

Writing Skill-Poster, Debate , Speech

January

Hornbill- Revision

Writing Skill- Debate, Advertisement

Reading Skill- Note Making

EXAMWISE SYLLABUS BREAK UP

PERIODIC TEST 1

Reading: Comprehension

Grammar-Tenses ,Writing Skill-Poster

Literature-The Portrait Of A Lady, The Summer Of A Beautiful White Horse

PERIODIC TEST 2

Reading – Note Making

Snapshots - Summer Of Beautiful White Horse

Writing Skill- Advertisement

MID TERM

Reading**-**Comprehension

Hornbill**-** The Portrait Of A Lady, The Photograph, Discovering Tut, Laburnum Top

Snapshot- The Summer Of A Beautiful White Horse, Birth

Grammar- Integrated Grammar

Writing skill- Advertisement, Poster , Speech

PERIODIC TEST 3

Hornbill Poem Childhood ,We Are Not Afraid To Die

Snapshots-Mother's Day, Tale Of Melon City , The Address

Writing Skill-Poster, Debate

Annual Exam - Full Syllabus

MATHEMATICS(041)
SESSION-(2025-2026)

Objectives:

The broad objectives of teaching Mathematics at senior school stage intend to help the students:

- to acquire knowledge and critical understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles, symbols and mastery of underlying processes and skills.
- to feel the flow of reasons while proving a result or solving a problem.
- to apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method.
- to develop a positive attitude to think, analyze and articulate logically.
- to develop interest in the subject by participating in related competitions.
- to acquaint students with different aspects of Mathematics used in daily life.
- to develop an interest in students to study Mathematics as a discipline.
- to develop awareness of the need for national integration, protection of the environment,observance of small family norms, removal of social barriers, elimination of gender biases.
- to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics.

Prescribed Books:

- Mathematics- Textbook for Class XI, NCERT Publication.
- Mathematics Exemplar Problem for Class XI, NCERT Publication.

- Mathematics Lab Manual for Class XI, NCERT Publication.

Reference Book:

- Mathematics Class XI by Dr. R.D. Sharma (Dhanpat Rai Publications Private Limited)

Unit-wise Weightage:

No.	Units	No. of Periods	Marks
I.	Sets and Functions	60	23
II.	Algebra	50	25
III.	Coordinate Geometry	50	12
IV.	Calculus	40	08
V.	Statistics and Probability	40	12
	Total	240	80
	Internal Assessment		20

No chapter/unit-wise weightage.Care to be taken to cover all the chapters.

MONTH-WISE SYLLABUS BREAK UP (2024-2025)

APRIL2025 & MAY 2025

Chapter - 8: Sequence and Series (10 Periods)

Sequence and Series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.

Chapter - 3: Trigonometric Functions(20 Periods)

Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity $\sin 2x + \cos 2x = 1$, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing $\sin(x \pm y)$ and $\cos(x \pm y)$ in terms of sinx, siny, cosx & cozy and their simple applications. Deducing identities like the following:

$$\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}, \cot(x \pm y) = \frac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$$

$$\sin\alpha \pm \sin\beta = 2\sin\frac{1}{2}(\alpha \pm \beta)\cos\frac{1}{2}(\alpha \mp \beta)$$

$$\cos\alpha + \cos\beta = 2\cos\frac{1}{2}(\alpha + \beta)\cos\frac{1}{2}(\alpha - \beta)$$

$$cos\alpha - cos\beta = -2sin\frac{1}{2}(\alpha + \beta)sin\frac{1}{2}(\alpha - \beta)$$

Identities related to sin2x, cos2x, tan2 x, sin3x, cos3x and tan3x.

JULY 2025 & AUGUST 2025

Chapter - 1: Sets(20 Periods)

Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.

Chapter - 2: Relations & Functions(20 Periods)

Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto R x R x R).Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions.

Chapter - 4: Complex Numbers and Quadratic Equations(10 periods)

Need for complex numbers, especially $\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane

SEPTEMBER 2025

Chapter - 5: Linear Inequalities (10 periods)

Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line.

OCTOBER 2025

Chapter - 6: Permutations and Combinations(10 periods)

Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of Formulae for nPr and nCr and their connections, simple applications.

Chapter - 7: Binomial Theorem(10 periods)

Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications.

NOVEMBER 2025

Chapter - 9: Straight Lines(15 Periods)

Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line.

Chapter - 10: Conic Sections(25 periods)

Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerate case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.

Chapter - 11: Introduction to Three-dimensional Geometry(10 Periods)

Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.

DECEMBER 2025

Chapter - 12: Limits and Derivatives(40 Periods)

Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relates it to slope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.

Chapter - 13: Statistics (20 Periods)

Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.

JANUARY 2026

Chapter - 14: Probability(20 periods)

Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events.

Revision of Assignments and Sample Papers

FEBRUARY 2026

Revision of Sample Papers

LAB ACTIVITIES
APRIL 2025 - MAY 2025

Activity -1: To demonstrate that the Arithmetic mean of two different positive numbers is always greater than the Geometric mean.
Activity -2: To verify the relation between the degree measure and the radian measure of an angle

JULY 2025 -AUGUST 2025

Activity -3: To find the number of subsets of a given set and verify that if a set has n number of elements, then the total number of subsets is 2^n.
Activity- 4: To verify distributive law for three given non-empty sets A, B and C, that is, $A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$
Activity -5: To distinguish between a Relation and a Function.
Activity -6: To interpret geometrically the meaning of $i = \sqrt{-1}$ and its integral powers.

SEPTEMBER 2025

Activity-7: To verify that the graph of a given inequality, say 5x + 4y - 40 < 0, of the form ax + by + c < 0, a, b > 0, c < 0 represents only one of the two half planes.

NOVEMBER 2025

Activity-8: To construct an ellipse when two fixed points are given.

DECEMBER 2025

Activity-9: To find analytically $\lim_{x \to c} f(x) = \frac{x^2 - c^2}{x - c}$

JANUARY 2026

Activity-10: To write the sample space, when a coin is tossed once, two times, three times, four times.

Exam wise Break up

Periodic Test 1:

- Chapter 8: Sequence and Series
- Chapter-3:Trigonometric Functions

Periodic Test 2:

Chapter 1: Sets
Chapter 2 Relation and function
Chapter 3 Trigonometric Function

Mid Term:

Chapters 1, 2, 3, 4, 5 and 8

Periodic Test 3:

- Chapter 6: Permutations and combinations
- Chapter 7: Binomial Theorem

Annual Examination: Whole Syllabus

PHYSICS (042)

Learning Outcomes :

The Senior secondary stage of school education is a stage of transition from general education to discipline-based focus on curriculum. The present updated syllabus keeps in view the rigor and depth of the disciplinary approach as well as the comprehension level of learners. Due care has also been taken that the syllabus is comparable to the international standards. Salient features of the syllabus include:

- Emphasis on a basic conceptual understanding of the content.
- Emphasis on use of SI units, symbols, nomenclature of physical quantities and formulations as per international standards.
- Providing logical sequencing of units of the subject matter and proper placement of concepts with their linkage for better learning.
- Reducing the curriculum load by eliminating overlapping of concepts/content within the discipline and other disciplines.
- Promotion of process-skills, problem-solving abilities and applications of Physics concepts.

Besides, the syllabus also attempts to

- strengthen the concepts developed at the secondary stage to provide a firm foundation for further learning in the subject.
- expose the learners to different processes used in Physics-related industrial and technological applications.
- develop process-skills and experimental, observational, manipulative, decision making and investigatory skills in the learners.

- promote problem solving abilities and creative thinking in learners.
- develop conceptual competence in the learners and make them realize and appreciate the interface of Physics with other disciplines.

Recommended Textbooks and Prescribed Books:

1. Physics Part-I, Textbook for Class XI, Published by NCERT
2. Physics Part-II, Textbook for Class XI, Published by NCERT
3. Laboratory Manual of Physics, Class XI Published by NCERT
4. The list of other related books and manuals brought out by NCERT (consider multimedia also).

Reference books:

1. New simplified Physics. by S.L. Arora, Publisher- Dhanpat Rai & Co.
2. Fundamental Physics . by K.L. Gogia and Gomber, Publisher- Pradeep Publications

e-Resources:

http://ncert.nic.in/textbook/textbook.htm
https://ncert.online/cbse/keph/

Curricular Expectations

At this stage, learners are expected to:

1. Develop interest to study physics as a discipline;
2. Strengthen the concepts developed at the secondary stage to acquire firm ground work and foundation for further learning of Physics more effectively and learning the relationship with real life situations;
3. Apply reasoning to develop conceptual understanding of Physics concepts;
4. Realize and appreciate the interface of Physics with other disciplines
5. Get exposure to different processes used in Physics-related industrial and technological applications;
6. Develop process-skills and experimental, observational, manipulative, decision-making and investigatory skills;
7. Synthesize various science/physics concepts to solve problems and thinking critically in the process of learning Physics;
8. Understand the relationship between nature and matter on scientific basis, develop positive scientific attitude, and appreciate the contribution of Physics towards the improvement of quality of life and human welfare;
9. Comprehend contemporary knowledge and develop aesthetic sensibilities.
10. Appreciate the role and impact of physics and technology, and their linkages with overall national development.

Physics (042) Course Structure Class 11 2024-25 (Theory)

Time : 3Hr.		Max Marks : 70	
Unit	Chapter's name	Pds.	Marks
Unit I: Physical World and Measurement		10	23
Chapter 2	Units and Measurement		
Unit II: Kinematics			24

Chapter 3	Motion in a Straight Line		
Chapter 4	Motion in a Plane		
Unit III: Laws of Motion			14
Chapter 5	Laws of Motion		
Unit IV: Work, Energy and Power			12
Chapter 6	Work, Energy And Power		
Unit V: Motion of System of Particles and Rigid Body		18	
Chapter 7	Systems Of Particles And Rotational Motion		
Unit VI: Gravitation			12
Chapter 8	Gravitation		
Unit VII: Properties of Bulk Matter			24
Chapter 9	Mechanical Properties of Solids		
Chapter 10	Mechanical Properties of Fluids		
Chapter 11	Thermal Properties of Matter		
Unit VIII: Thermodynamics		12	
Chapter 12	Thermodynamics		
Unit X: Oscillations and Waves			26
Chapter 14	Oscillations		
Chapter 15	Waves		
	Total	152	

April-May

Unit I: Physical World and Measurement
Chapter 2 : Units And Measurement

Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures.Determining the uncertainty in result.

Dimensions of physical quantities, dimensional analysis and its applications.

Unit II: Kinematics
Chapter 3 : Motion In A Straight Line

Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, average speed and average velocity and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatmen and calculus treatment).

JULY

Chapter–4: Motion in a Plane
Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration- projectile motion, uniform circular motion.

August

Unit III: Laws of Motion
Chapter 5 : Laws Of Motion

Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications, Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road)

September

Unit IV: Work, Energy and Power
Chapter 6 : Work, Energy And Power

Work done by a constant force and a variable force; kinetic energy, work- energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two dimensions.

October

Unit V: Motion of System of Particles and Rigid Body

Chapter 7 : Systems Of Particles And Rotational Motion

Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications.

Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).

Chapter–8: Gravitation

Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape speed, orbital velocity of a satellite, energy of an orbiting satellite.

November

Unit VII: Properties of Bulk Matter

Chapter 9 : Mechanical Properties Of Solids

Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. Application of elastic behavior of materials (qualitative idea only).

Chapter–10: Mechanical Properties of Fluids

Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications (Torricelli's law and Dynamic lift).. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.

Chapter 11 : Thermal Properties Of Matter

Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change of state - latent heat capacity. Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law .

December

Unit VIII: Thermodynamics

Chapter 12 : Thermodynamics

Thermal equilibrium and definition of temperature, zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: : Thermodynamic state variable and equation of state, gaseous state of matter, change of condition of gaseous state -isothermal, adiabatic, reversible, irreversible, and cyclic processes.

Unit IX: Behavior of perfect gas and kinetic theory of gasses

Chapter 13 : Kinetic theory **Deleted 8 marks will be adjusted in other chapters**

Unit X: Oscillations and Waves

Chapter 14 : Oscillations

Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their applications. Simple harmonic motion (S.H.M) uniform circular and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; energy in

S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.

January

Unit X: Oscillations and Waves

Chapter 15 : Waves

Wave motion: Transverse and longitudinal waves, speed of travelling wave, displacement relation for a progressive wave, principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.

Physics Practicals

The record, to be submitted by the students, at the time of their annual examination, has to include:

- Record of at least 8 Experiments [with 4 from each section], to be performed by the students.
- Record of at least 6 Activities [with 3 each from section A and section B], to be performed by the students.
- Report of the project carried out by the students.

Time 3 hr.	Evaluation Scheme:	Max. Marks: 30
1	Two experiments one from each section	7+7 Marks
2	Practical record (experiment and activities)	5 Marks
3	One activity from any section	3 Marks
4	Investigatory Project	3 Marks
5	Viva on experiments, activities and project	5 Marks
	Total	**30 Marks**

	List of Experiments and Activities to be done
Expt.1	To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.
Expt.2	To measure diameter of a given wire and thickness of a given sheet using screw gauge.
Expt.3	To determine volume of an irregular lamina using screw gauge.
Expt.4	To determine radius of curvature of a given spherical surface by a spherometer

Act. 1	To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.
Act. 2	To determine mass of a given body using a meter scale by principle of moments.
Expt.5	To find the weight of a given body using the parallelogram law of vectors.
Expt.6	Using a simple pendulum, plot L-T and L-T^2 graphs. Hence find the effective length of second's pendulum using the appropriate graph.
Act 3	To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).
Act 4	To observe and explain the effect of heating on a bi-metallic strip.
Expt.7	To study the relationship between force of limiting friction and normal reaction and to find the coefficient of friction between a block and a horizontal surface.
Expt.8	To find the downward force, along an inclined plane, acting on a roller due to Gravitational pull of the earth and study its relationship with the angle of inclination by plotting a graph between force and sin.
Expt.9	To find the force constant of a helical spring by plotting a graph between load and extension
Act 5	To note the change in level of liquid in a container on heating and interpret the observations.
Act 6	To study the effect of load on depression of a suitably clamped meter scale loaded at (i) its end (ii) in the middle.
Expt.10	To determine the surface tension of water by capillary rise method.
Expt.11	To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.
Expt.12	To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
Expt.13	To study the relation between the length of a given wire and tension for constant frequency using a sonometer.
Expt.14	To find the speed of sound in air at room temperature using a resonance tube by two resonance positions
Expt.15	To determine Young's modulus of elasticity of the material of a given wire.
Demo Expts.	1. Projectile motion : Range of trajectory at different angles of projection 2. Applications of Bernoulli's principle.

Exam wise Break up

Periodic Test 1

Chapter 2 : Units And Measurement

Chapter 3 : Motion In A Straight Line

Periodic Test 2:
Chapter–4: Motion in a Plane
Chapter 5 : Laws Of Motion

Mid Term:
Chapter–2: Units and Measurements
Chapter–3: Motion in a Straight Line
Chapter–4: Motion in a Plane
Chapter–5: Laws of Motion

Periodic Test 3:
Chapter–6: Work, Energy and Power
Chapter–7: System of Particles and Rotational Motion

Annual Examination: (complete Syllabus)
Chapter–2: Units and Measurements
Chapter–3: Motion in a Straight Line
Chapter–4: Motion in a Plane
Chapter–5: Laws of Motion
Chapter–6: Work, Energy and Power
Chapter–7: System of Particles and Rotational Motion
Chapter–8: Gravitation
Chapter–9: Mechanical Properties of Solids
Chapter–10: Mechanical Properties of Fluids
Chapter–11: Thermal Properties of Matter
Chapter–12: Thermodynamics
Chapter–14: Oscillations
Chapter–15: Waves

CHEMISTRY (2025-26)

OBJECTIVES:

The broad objectives of teaching Chemistry at Senior Secondary Stage are:

- to promote understanding of basic facts and concepts in chemistry while retaining the excitement of chemistry.
- to make students capable of studying chemistry in academic and professional courses (such as medicine, engineering, technology) at tertiary level.
- to expose the students to various emerging new areas of chemistry and apprise them with their relevance in future studies and their application in various spheres of chemical sciences and technology.
- to equip students to face various challenges related to health, nutrition, environment, population, weather, industries and agriculture.
- to develop problem solving skills in students.
- to expose the students to different processes used in industries and their technological applications.
- to apprise students of the interface of chemistry with other disciplines of science such as physics, biology, geology, engineering etc.

- to acquaint students with different aspects of chemistry used in daily life.
- to develop an interest in students to study chemistry as a discipline.

TEXT BOOKS

- Chemistry Part -I, Class-XI, Published by NCERT.
- Chemistry Part -II, Class-XI, Published by NCERT.
- https://ncert.nic.in/textbook.php?lech1=0-5
- https://ncert.nic.in/textbook.php?lech2=0-5
- https://cbseacademic.nic.in/web_material/CurriculumMain25/SrSec/Chemistry_SrSec_2024-25.pdf

REFERENCE BOOKS

- MODERN'S abc of chemistry (Part-I and Part-II)
  By – Dr. S.P.Jauhar
  Modern Publishers
- Pradeep's Chemistry (Part-I and Part-2) by S.C. Kheterpal and S.N. Dhawan

Unit wise Mark's Distribution

TERM WISE SYLLABUS PLAN

April:

Unit I: Some Basic Concepts of Chemistry

General Introduction: Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry.

May:

Unit II: Structure of Atom

Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model and its limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's

exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled and completely filled orbitals.

PRACTICALS:

1. Determination of melting point of an organic compound.

2. Determination of boiling point of an organic compound.

July:
Unit II: Structure of Atom(contd…)

Unit III: Classification of Elements and Periodicity in Properties

Significance of classification, brief history of the development of periodic table, modern

periodic law and the present form of periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain
enthalpy, electronegativity,valency. Nomenclature of elements with atomic number greater than 100.

Unit IV: Chemical Bonding and Molecular Structure

Valence electrons, ionic bond, covalent bond, bond parameters, Lewis's structure, polar
character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory
of homonuclear diatomic molecules (qualitative idea only), Hydrogen bond.

August
Unit IV: Chemical Bonding and Molecular Structure(contd… .)
Unit VII: Redox Reactions

Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number,
applications of redox reactions.

PRACTICAL

1. Preparation of standard solution of Oxalic acid.
2.Determination of strength of a given solution of Sodium hydroxide by titrating it against standard solution of Oxalic acid.
3.Preparation of standard solution of Sodium carbonate.
4.Determination of strength of a given solution of hydrochloric acid by titrating it against standard Sodium Carbonate solution.

SEPTEMBER

Unit V: Chemical Thermodynamics
Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions.
OCTOBER

Unit V: Chemical Thermodynamics
Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH, Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation,
atomization, sublimation, phase transition, ionization, solution and dilution. Second law of
Thermodynamics (brief introduction) Introduction of entropy as a state function, Gibb's
energy change for spontaneous and non- spontaneous processes, criteria for equilibrium.
Third law of thermodynamics (brief introduction).
Unit VI: Equilibrium
Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH, hydrolysis of salts
(elementary idea), buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples)
NOVEMBER:

Unit VI: Equilibrium (contd.)
Unit VIII: Organic Chemistry -Some Basic Principles and Techniques
General introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds.

PRACTICAL
Determination of one anion and one cation in the given salt.
Anions :
CO_3^{2-}, S^{2-}, SO_3^{2-}, NO_2^-,Cl^-, Br^-, I^-, NO_3^-, CH_3COO^-, SO_4^-, PO_4^{3-}
Cations : Pb^{2+}, Cu^{2+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+},Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+},

DECEMBER

Unit VIII: Organic Chemistry -Some Basic Principles and Techniques
Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyperconjugation.

Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.

Unit IX: Hydrocarbons Classification of Hydrocarbons Aliphatic Hydrocarbons:

Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties,

chemical reactions including free radical mechanisms of halogenation, combustion and pyrolysis.

Alkenes - Nomenclature, the structure of double bond (ethene), geometrical isomerism,

physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition.

Alkynes - Nomenclature, the structure of triple bond (ethyne), physical properties, methods

preparation, chemical reactions: acidic character of alkynes, addition reaction of -hydrogen, halogens, hydrogen halides and water.

Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Crafts alkylation and acylation,

PRACTICAL

Determination of one anion and one cation in the given salt.

Anions : CO_3^{2-}, S^{2-}, SO_3^{2-}, NO_2^-,Cl^-, Br^-, I^-, NO_3^-, CH_3COO^-, SO_4^-, PO_4^{3-}

Cations : Pb^{2+}, Cu^{2+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+},Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+},

JANUARY

Hydrocarbons (CONTD.)

Aromatic Hydrocarbons:

Directive influence of the functional group in monosubstituted benzene.

Carcinogenicity and toxicity

Revision

PRACTICAL

Determination of one anion and one cation in the given salt.

Anions : CO_3^{2-}, S^{2-}, SO_3^{2-}, NO_2^-,Cl^-, Br^-, I^-, NO_3^-, CH_3COO^-, SO_4^-, PO_4^{3-}

Cations : Pb^{2+}, Cu^{2+}, Al^{3+}, Fe^{3+}, Mn^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+},Ca^{2+}, Sr^{2+}, Ba^{2+}, Mg^{2+},

FEBRUARY

Revision

Exam wise Break up

PERIODIC TEST 1

UNIT-1 :- Some Basic Concepts of Chemistry

UNIT-2 :- Structure of Atom

MID-TERM EXAM

UNIT-1 :- Some Basic Concepts of Chemistry
UNIT-2 :- Structure of Atom
UNIT-3 :- Classification of Elements and Periodicity in Properties
Unit 4: Chemical Bonding and Molecular Structure
Unit 7 :- Redox Reactions

PERIODIC TEST-2

UNIT-3 :- Classification of Elements and Periodicity in Properties
Unit 4: Chemical Bonding and Molecular Structure

PERIODIC TEST-3

UNIT 5 -Thermodynamics

ANNUAL EXAM

UNIT-1 :- Some Basic Concepts of Chemistry
UNIT-2 :- Structure of Atom
UNIT-3 :- Classification of Elements and Periodicity in Properties
Unit 4: Chemical Bonding and Molecular Structure
UNIT-5:Chemical Thermodynamics
UNIT-6:- Equilibrium
Unit 7 :- Redox Reactions
Unit 8 : Organic Chemistry -Some Basic Principles and Techniques
UNIT-9 :- Hydrocarbons

BIOLOGY (044)

MONTHLY SYLLABUS PLAN CLASS XI SESSION (2025-26)

Learning Outcomes: The learners will be able to

- differentiates organisms, phenomena and processes based on certain characteristics and salient features, such as, prokaryotes and eukaryotes, plant cell and animal cell, diffusion and osmosis, meristematic tissues and permanent tissues; squamous epithelium and cuboidal epithelium, diploblastic and triploblastic organization;

metacentric, submetacentric, acrocentric and telocentric chromosomes; etc.

- ➢ classifies organisms, phenomena and processes, based on certain characteristics / salient features systematically in a more scientific and organized manner; such as the five kingdom classification system of organisms under various hierarchical structural organizations; natural resources, etc.
- ➢ relates processes and phenomena with causes and effects, such as, characteristics of living with cell as basic unit of life, transpiration pull with absorption of water by roots of plants; tissues with their functions, deficiency symptoms of essential elements, pumping of heart with circulation of blood,hormones with various physiological functions, digestive enzymes electrocardiograph (ECG) and heart diseases; smoking and lung diseases; etc.
- ➢ applies scientific terminology for organisms, processes, and phenomena based on internationally accepted conventions, such as, systematic technical description of flowers, taxonomic study of plants and animals; Binomial nomenclature of organisms; coelom, bisymmetric body etc; bisexual and unisexual organisms, actinomorphic and zygomorphic flowers, aestivations, placentations, physiological processes, cardiac cycle; organ structures; SA node; AV node; etc.
- ➢ explains efficient systems, relationships, processes and phenomena such as; organ systems in frogs, cockroaches and earthworms, structures and function of cell organelles, photosynthesis, respiration, mechanism of contraction of skeletal muscles, etc.
- ➢ describes contribution of scientists/researchers all over the world in systematic evolution of concepts, scientific discoveries and inventions in the field of biology based on historical scientific events/ timelines etc; such as; Anton Van Leeuwenhoek described a live cell and later,
- ➢ Robert Brown discovered the nucleus; in classification systems of living organisms, Aristotle was the earliest and then Linnaeus proposed two kingdom classification and later R. H. Whittaker proposed five kingdom classification, etc.

Textbook for the session (2025-26)

1. N.C.E.R.T- Biology

textbook for class XI

https://ncert.nic.in/textbook.php?kebo1=0-19

2. **N.C.E.R.T Biology Exemplar Problem**

for class XI

https://ncert.nic.in/exemplar-problems.php?ln=

UNIT WISE MARKS DISTRIBUTION

Time : 3 Hours **MM-70**

UNIT	TITLE	MARKS
I	Diversity of Living Organisms	15
II	Structural Organization in Plants and Animals	10
III	Cell: Structure and Functions	15
IV	Plant Physiology	12
V	Human Physiology	18

MONTH-WISE SYLLABUS BREAK-UP

APRIL

UNIT I- DIVERSITY IN LIVING WORLD

Chapter 1- The Living World: Biodiversity; Need for classification; three domains of life; taxonomy and systematics; concept of species and taxonomic hierarchy; binomial nomenclature.

Chapter 2- Biological classification: Five kingdom classification**;** Salient features and classification of Monera, Protista and Fungi into major groups: Lichens, Viruses and Viroids.

Chapter 3- Plant Kingdom: Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae (Topics excluded – Angiosperms, Plant Life Cycle and Alternation of Generations).

Practicals

1. Study parts of a compound microscope.
2. Study of distribution of stomata in the upper and lower surface of leaves.

3. Study and describe locally available common flowering plants, from family Solanaceae(Poaceae, Asteraceae or Brassicaceae can be substituted in case of particular geographical location) including dissection and display of floral whorls, anther and ovary to show number of chambers (floral formulae and floral diagrams), type of root (tap and adventitious); type of stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound).

MAY

Chapter 4-Animal Kingdom: Salient features and classification of animals, non-chordates up to phyla level and chordates upto class level (salient features and at a few examples of each category).

Chapter 5-Morphology of flowering plants: Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae

Practicals

4. Virtual specimens/slides/models and identifying features of - Amoeba, Hydra,liver fluke, Ascaris, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.
5. Different types of inflorescence (cymose and racemose).

JUNE

PROJECT WORK and COMPLETION OF PRACTICAL FILES

JULY

UNIT II- STRUCTURAL ORGANIZATION IN PLANTS AND ANIMALS

Chapter-6: Anatomy of Flowering Plants-Anatomy and functions of tissue systems in dicots and monocots.

Chapter-7: Structural Organisation in Animals- Morphology, Anatomy and functions of different systems (digestive, circulatory,respiratory, nervous and reproductive) of frogs.

UNIT III-CELL STRUCTURE AND FUNCTION

Chapter 8- Cell theory and cell as the basic unit of life: Structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; Cell envelope, cell membrane, cell wall; Cell organelles - structure and function; endomembrane system, endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function);nucleus, nuclear membrane, chromatin, nucleolus.

Chapter 10-Cell division: Cell cycle, mitosis, meiosis and their significance.

Practicals

6. Preparation and study of T.S. of dicot and monocot roots and stems (primary)
7. Study of plasmolysis in epidermal peels (e.g. Rhoeo/lily leaves or fleshy scale leaves of onion bulb).

AUGUST

UNIT III-CELL STRUCTURE AND FUNCTION

Chapter 9- Biomolecules: Chemical constituents of living cells: biomolecules,structure and function of proteins, carbohydrates, lipids, nucleic acids, enzymes, types, properties, enzyme action. (Topics excluded: Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents – Concept of Metabolism, Metabolic Basis of Living, The Living State).

UNIT IV- PLANT PHYSIOLOGY

Chapter 11-Photosynthesis in higher plants: u; phases of plant growth and plant growth rate; conditions of growth;differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.

Practicals

8. Study of mitosis in onion root tips cells and animal cells (grasshopper) from permanent slides
9. Test for the presence of sugar, starch, proteins and fats in suitable plant and animal materials.
10. Separation of plant pigments through paper chromatography.

SEPTEMBER

UNIT IV- PLANT PHYSIOLOGY

Chapter 12- **Respiration:** Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient.

OCTOBER

UNIT IV- PLANT PHYSIOLOGY

Chapter 13-Plant growth and development: Seed germination; phases of plant growth and plant growth rate; conditions of growth;differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.

Chapter 14- Breathing and Exchange of gasses: Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gasses, transport of gasses and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupational respiratory disorders.

Practicals

11. Study of osmosis by potato osmometer
12. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.

NOVEMBER

UNIT V - HUMAN PHYSIOLOGY

Chapter 15- Body fluids and Circulation: Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human

circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of circulatory system - hypertension, coronary artery disease, angina pectoris, heart failure.

Chapter 16-Excretory products and their elimination: Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system - structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney.

Practicals

13. Test for presence of urea in urine.
14. Test for presence of sugar in urine.
15. Test for presence of albumin in urine.
16. Test for presence of bile salts in urine.

DECEMBER

Chapter 17-Locomotion and movement: Types of movement - ciliary, flagellar, muscular; skeletal muscle contractile proteins and muscle contraction; skeletal system and its functions; joints; disorders of muscular and skeletal system - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout.

Chapter 18- Neural control and coordination: Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; generation and conduction of nerve impulse.

Practicals

17. Human skeleton and different types of joints with the help of virtual images/models only.

JANUARY

Chapter 19- Chemical coordination and Integration: Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads; mechanism of hormone

action (elementary Idea); role of hormones as messengers and regulators, hypo – and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goiter, diabetes, Addision's disease.

FEBRUARY

Revision

Exam wise Break up

PERIODIC TEST I

Chapter 1- The Living World

Chapter 2- Biological Classification

Chapter 3- Plant Kingdom

Chapter 4- Animal Kingdom

PERIODIC TEST II

Chapter 8- Cell: The Unit of Life

Chapter 9- Biomolecules

Chapter 10-Cell Cycle and Cell Division

MID-TERM

Chapter 1- The Living World

Chapter 2- Biological Classification

Chapter 3- Plant Kingdom

Chapter 4- Animal Kingdom

Chapter 5- Morphology of Flowering Plants

Chapter 6- Anatomy of Flowering Plants

Chapter 7- Structural Organisation in animals

Chapter 8- Cell: The Unit of Life

Chapter 9- Biomolecules

Chapter 10- Cell Cycle and Cell division

Chapter 11- Photosynthesis in Higher plants

Chapter 12 Respiration in Higher plants

PERIODIC TEST III

Chapter 14 Breathing and Exchange of gases

Chapter 15 Body Fluids and Circulation

Chapter 16 Excretory products and its elimination

ANNUAL EXAM

UNIT I DIVERSITY IN THE LIVING WORLD

Chapter 1: The Living World

Chapter 2: Biological Classification

Chapter 3: Plant Kingdom

Chapter 4: Animal Kingdom

UNIT II STRUCTURAL ORGANIZATION IN PLANTS AND ANIMALS

Chapter 5: Morphology of Flowering Plants

Chapter 6: Anatomy of Flowering Plants

Chapter 7: Structural Organisation in Animals

UNIT III CELL: STRUCTURE AND FUNCTIONS

Chapter 8 : Cell: The Unit of Life

Chapter 9: Biomolecules

Chapter 10: Cell Cycle and Cell Division

UNIT IV PLANT PHYSIOLOGY

Chapter 11: Photosynthesis in Higher Plants

Chapter 12: Respiration in Plants

Chapter 13: Plant Growth and Development

UNIT V HUMAN PHYSIOLOGY

Chapter 14: Breathing and Exchange of Gases

Chapter 15: Body Fluids and Circulation

Chapter 16: Excretory Products and their Elimination

Chapter 17: Locomotion and Movement

Chapter 18: Neural Control and Coordination

COMPUTER SCIENCE(Code No. 083)

Learning Outcomes

Student should be able to

- develop basic computational thinking
- explain and use data types
- appreciate the notion of algorithm
- develop a basic understanding of computer systems - architecture, operating system and cloud computing
- explain cyber ethics, cyber safety and cybercrime
- Understand the value of technology in societies along with consideration of gender and disability issues

Textbook: Computer Science with Python (NCERT) XI

https://ncert.nic.in/textbook.php?kecs1=0-11

Reference Book :

- Support Materials on the CBSE website.
- Computer Science with Python (Orange Publications)

Distribution of Marks

Unit No.	Unit Name	Marks	Periods	
			Theory	Practical
I	Computer Systems and Organisation	10	10	10
II	Computational Thinking and Programming - 1	45	80	60
III	Society, Law and Ethics	15	20	----
	Total	70	110	70

TERM WISE SYLLABUS

APRIL-MAY

Unit I: Computer Systems and Organisation

Chapter 1 : Computer System (NCERT - XI)

- Basic Computer Organisation: Introduction to computer system, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (Bit, Byte, KB, MB, GB, TB, PB)
- Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler & interpreter), application software

- Operating system (OS): functions of operating system, OS user interface
- Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth table, De Morgan's laws and logic circuits

JULY

Chapter 2 : Encoding Schemes & Number Systems (NCERT - XI)

- Number system: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems.
- Encoding schemes: ASCII, ISCII and UNICODE (UTF8, UTF32)

Chapter 4 : Introduction to Problem Solving (NCERT - XI)

- Introduction to problem solving: Steps for problem solving (analyzing the problem, developing an algorithm, coding, testing and debugging). representation of algorithms using flowchart and pseudocode, decomposition

Chapter 5 : Getting started with Python (NCERT - XI)

- Familiarization with the basics of Python programming: Introduction to Python, features of Python, executing a simple "hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens (keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments
- Knowledge of data types: number (integer, floating point, complex), boolean, sequence (string, list, tuple), none, mapping (dictionary), mutable and immutable data types

AUGUST

Unit II: Computational Thinking and Programming – 1

Chapter 5 : Getting started with Python (NCERT - XI)

- Operators: arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in)
- Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output
- Errors: syntax errors, logical errors, runtime errors

Chapter 6 : Flow of Control (NCERT - XI)

- Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control
- Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e.g.: absolute value, sort 3 numbers and divisibility of a number

SEPTEMBER

Chapter 6 : Flow of Control (NCERT - XI)

- Iterative statements: for loop, range function, while loop, flowcharts, break and continue statements, nested loops, suggested programs:
- generating pattern, summation of series, finding the factorial of a positive number etc .

Chapter 7 : Functions (NCERT - XI)

- Introduction to Python modules: Importing module using 'import <module>' and using from statement, Importing math module (pi, e, sqrt, ceil, floor, pow, fabs, sin, cos, tan); random module (random, randint, randrange), statistics module (mean, median, mode)

OCTOBER

Chapter 8 : Strings (NCERT - XI)

- Strings: introduction, indexing, string operations (concatenation, repetition, membership & slicing), traversing a string using loops, built-in functions: len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(), rstrip(), strip(), replace(), join(), partition(), split()

Chapter 9 : Lists (NCERT - XI)

- Lists: introduction, indexing, list operations (concatenation, repetition, membership & slicing), traversing a list using loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list

Chapter 10 : Tuples & Dictionaries (NCERT - XI)

- Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership & slicing), built-in functions: len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple, suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple

NOVEMBER

Chapter 10 : Tuples & Dictionaries (NCERT - XI)

- Dictionary: introduction, accessing items in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item), traversing a dictionary, built-in functions: len(), dict(), keys(), values(), items(), get(), update(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy(); suggested programs : count the number of times a character

appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them

DECEMBER

Unit III: Society, Law and Ethics

Chapter 10 : Societal Impact (NCERT XI)

- Digital Footprints
- Digital society and Netizen: net etiquettes, communication etiquettes, social media étiquettes
- Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source softwares and licensing (Creative Commons, GPL and Apache)
- Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cyber crime
- Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying.
- Safely accessing web sites: malware, viruses, trojans, adware
- E-waste management: proper disposal of used electronic gadgets
- Indian Information Technology Act (IT Act)
- Technology & Society: Gender and disability issues while teaching and using computers

PROJECT WORK

JANUARY & FEBRUARY

Revision & Project Work

4. Practical

S.No.	Unit Name	Marks (Total=30)
1.	**Lab Test (12 marks)**	
	Python program (60% logic + 20% documentation + 20% code quality)	**12**
2.	**Report File + Viva (10 marks)**	
	Report file: Minimum 20 Python programs	**7**
	Viva voce	**3**
3.	Project (that uses most of the concepts that have been learnt) (See CS-XII for the rules regarding the projects)	**8**

Exam wise Break up

Periodic Test -1 : Chapter 1 : Computer System

Periodic Test-2 : Chapter 2 : Encoding Schemes & Number Systems (NCERT - XI)

Chapter 4 : Introduction to Problem Solving (NCERT - XI)

Chapter 5 : Getting started with Python (NCERT - XI)(Basics)

Mid Term : Chapter 1 : Computer System
Chapter 2 : Encoding Schemes & Number Systems
Chapter 4 : Introduction to Problem Solving
Chapter 5 : Getting started with Python
Chapter 6 : Flow of Control

Periodic Test - 3 : Chapter 7 : Functions , Chapter 8 : Strings, Chapter 9 : Lists

Annual Examination : Whole Syllabus

INFORMATICS PRACTICES (065)

Learning Outcomes At the end of this course, students will be able to:

- Identify the components of a computer system.
- Create Python programs using different data types, lists and dictionaries.
- Understand database concepts and Relational Database Management Systems.
- Retrieve and manipulate data in RDBMS using Structured Query Language
- Identify the Emerging trends in the fields of Information Technology

Text Book : Informatics Practices, NCERT
Download Link: https://ncert.nic.in/textbook.php?leip1=ps-7

1. Distribution of Marks and Periods

Unit No	Unit Name	Marks
1	Introduction to computer system	10
2	Introduction to Python	25
3	Database concepts and the Structured Query Language	25
4	Introduction to Emerging Trends	10
	Project	-
	Practical	30
	Total	100

2. Month Wise syllabus (2025-26)

April - May

Unit 1: Introduction to Computer System Introduction to computer and computing: evolution of computing devices, components of a computer system and their interconnections, Input/output devices. Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery and related security concerns. Software: purpose and types – system and application software, generic and specific purpose software.

Unit 2: Introduction to Python Basics of Python programming, Python interpreter - interactive and script mode, the structure of a program, indentation, identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation and comments, input and output statements, data type conversion, debugging.

Control Statements: if-else, if-elif-else

July

Unit 2: Introduction to Python

Control Statements: if-else, if-elif-else, while loop, for loop

Lists: list operations - creating, initializing, traversing and manipulating lists, list methods and built-in functions – len(),list(),append(),insert(), count(),index(),remove(), pop(), reverse(), sort(), min(),max(),sum()

August

Dictionary: concept of key-value pair, creating, initializing, traversing, updating and deleting elements, dictionary methods and built-in functions – dict(), len(), keys(), values(), items(), update(), del(), clear()

Introduction to NumPy: Introduction, Creation of NumPy Arrays from List
Project Work : A small application will be developed in Python

September

Unit 4: Introduction to the Emerging Trends

Artificial Intelligence, Machine Learning, Natural Language Processing, Immersive experience (AR, VR), Robotics, Big data and its characteristics, Internet of Things (IoT), Sensors, Smart cities, Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); Grid Computing, Block chain technology.

Project Work : A small website on selected topic from above mentioned

October

Unit 3: Database concepts and the Structured Query Language

Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: Concept of domain, tuple, relation, candidate key, primary key, alternate key Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL, creating a database using MySQL, Data Types

November

Data Definition: CREATE DATABASE, CREATE TABLE, DROP, ALTER Data Query: SELECT, FROM, WHERE with relational operators, BETWEEN, logical operators, IS NULL, IS NOT NULL

December

Unit 3: Database concepts and the Structured Query Language

Data Manipulation: INSERT, DELETE,UPDATE

January

Project Work : Python Application or any Database development in Python

EXAM-WISE SYLLABUS BREAK-UP

PERIODIC TEST - 1
Chapter 1: Computer System
Chapter 2: Python Basics

PERIODIC TEST - 2
Chapter 3: Brief Overview of Python
Chapter 4 : Only List

MID-TERM EXAM
Chapter 1: Computer System
Chapter 3: Brief Overview of Python
Chapter 4: Working with List and Dictionary
Chapter 5: Numpy

PERIODIC TEST - 3
Chapter 6: Understanding Data
Chapter 7: SQL Commands

ANNUAL EXAM- Full syllabus

BUSINESS STUDIES (054)

OBJECTIVES

- · To develop students with an understanding of the processes of business and its environment.
- · To acquaint students with the dynamic nature and interdependent aspects of business.
- · To develop an interest in the theory and practice of business, trade and industry.
- · To familiarize students with theoretical foundations of the process of organizing and managing the operations of a business firm.
- · To help students appreciate the economic and social significance of business activity and the social cost and benefits arising there from.
- · To acquaint students with the practice of managing the operations and resources of business.
- · To enable students to act more effectively and responsibly as consumers, employers, employees and citizens.
- · To inculcate business attitude and develop skills among students to pursue higher education, world of work including self employment.

TEXT BOOK

NCERT : Business Studies – Textbook for Class XI

REFERENCE BOOK

Business Studies - A textbook for Class XI

Author - Subhash Dey (Shree Radhey Publications)

E-REFERENCES

LINK OF CURRICULUM BY CBSE·

https://cbseacademic.nic.in/web_material/CurriculumMain26/SrSec/BusinessStudies_SrSec_2025-26.pdf

CHAPTER - WISE MARKS DISTRIBUTION

S.No.	NAME OF THE CHAPTER	MARKS
PART A	**FOUNDATIONS OF BUSINESS**	
1	Nature and purpose of Business	16
2	Forms of Business Organisations	
3	Public, Private and Global Enterprises	14
4	Business Services	
5	Emerging Modes of Business	10
6	Social Responsibility of Business and Business Ethics	
PART B	**FINANCE AND TRADE**	
7	Sources of Business Finance	20
8	Small Business and Entrepreneurship Development	
9	Internal Trade	20
10	International Business	
	PROJECT WORK	20

MONTH-WISE SYLLABUS BREAK-UP

APRIL

NATURE AND PURPOSE OF BUSINESS

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Understand the meaning of business with special reference to economic and non-economic activities
- Appreciate the economic and social objectives of business.
- Understand the broad categories of business activities- industry and commerce.
- Discuss the meaning of different types of trade and auxiliaries to trade
- Examine the role of commerce ,trade and auxiliaries to trade
- Examine the nature and causes of business risks.
- To acquaint the history of Trade and Commerce in India.

TOPICS

- Concept and characteristics of Business
- Business, profession and employment - concept
- Objectives of business - Economic and social
- Role of profit in business
- Classification of business activities: Industry and Commerce
- Industry - types: primary, secondary,tertiary - Meaning and sub types
- Commerce - trade and auxiliaries to trade: banking, insurance, transportation, warehousing, communication, and advertising
- Business risks - concept
- History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities, Major Trade Centres, Major Imports and Exports, Position of Indian Sub-Continent in the World Economy.

FORMS OF BUSINESS ORGANISATION

Learning outcomes

After going through this unit, the student/ learner would be able to:

- List the different forms of business organizations and understand their meaning.
- Identify and explain the concept, merits and limitations of Sole Proprietorship.
- Understand the types of partnership on the basis of duration and on the basis of liability.
- State the need for registration of a partnership firm.

Discuss types of partners –active, sleeping, secret, nominal and partner by estoppel.

Understand the concept of Hindu Undivided Family Business.

Understand the concept of consumers, producers, marketing, farmers, credit and housing cooperative society

TOPICS

- Sole Proprietorship- Concept, merits and limitations
- Partnership -Concept, types, merits and limitations of partnership, registration of a partnership firm, Partnership Deed, Types of partners
- Hindu Undivided Family Business– Concept
- Cooperative Society: Concept, merits and limitations, types

MAY

FORMS OF BUSINESS ORGANISATION

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Identify and explain the concept, merits and limitations of a Joint stock company.
- Distinguish between the various forms of business organizations.
- Explain the factors that influence the choice of a suitable form of business organization.
- Highlight the stages in the formation of a company.
- Discuss the important documents used in the various stages in the formation of a company.

TOPICS

- Company: Concept ,merits and limitations
- Private and Public company
- Choice of form of business organization
- Highlight the stages in the formation of a company.
- Discuss the important documents used in the various stages in the formation of a company.

JULY

FORMATION OF A COMPANY

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Discuss the important documents used in the various stages in the formation of a company.
- Understand the meaning of One Person Company.

TOPICS

- Formation of a Company - documents to be used in the formation of a company
- One Person Company:Concept

PUBLIC, PRIVATE AND GLOBAL ENTERPRISES

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Develop an understanding of Public sector and private sector enterprises
- Identify and explain the features, merits and limitations of different forms of public sector enterprises
- Develop an understanding of Global Enterprises, Public Private Partnership by studying their meaning and features.

TOPICS

- Private sector and Public sector enterprises-Concept
- Forms of Public sector enterprises:Departmental Undertakings, Statutory Corporation and Government Company
- Global Enterprises – Features
- Joint Venture
- Public Private Partnership – concept

BUSINESS SERVICES

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Understand the meaning and types of business services
- Discuss the meaning and types of Business services
- Develop an understanding of different types of bank accounts.
- Recall the concept of insurance
- Understand Utmost Good Faith, Insurable Interest, Indemnity, Contribution, Doctrine of Subrogation and Causa Proxima as principles of insurance
- Discuss the meaning of different types of insurance-life, health, fire, marine insurance.

TOPICS

- Meaning and Types of Business Services
- Banking: Types of bank accounts - Savings, Current, Recurring, Fixed Deposit and Multiple Option Deposit Account
- Banking services with particular reference to Bank Draft, Bank Overdraft, Cash credit.
- E-Banking - meaning, Types of digital payments
- Insurance – Principles. Types – life, health, fire and marine insurance – concept
- Postal Service - Mail, Registered Post, Parcel, Speed Post, Courier - meaning

AUGUST

INTERNAL TRADE

Learning outcomes

After going through this unit, the student/ learner would be able to:

- State the meaning and types of internal trade.
- Appreciate the services of wholesalers and retailers.
- Explain the different types of retail trade.
- Highlight the distinctive features of departmental stores, chain stores
- Understand the concept of GST
- Understand the meaning of One Person Company.

TOPICS

- Internal Trade - meaning and types
- Services rendered by a wholesaler and a retailer
- Types of retail trade-Itinerant and small scale fixed shops retailers
- Large scale retailers-Departmental stores, Chain stores
- GST - Concept and key features

EMERGING MODES OF BUSINESS

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Give the meaning of e-business.
- Discuss the scope of e-business.
- Appreciate the benefits of e-business
- Distinguish e-business from traditional business.

TOPICS

e-business–Concept, scope and benefits

SEPTEMBER

REVISION FOR MID TERM EXAMS

SOURCES OF BUSINESS FINANCE

Learning outcomes

After going through this unit, the student/ learner would be able to:

- State the meaning, nature and importance of business finance
- Classify the various sources of funds into owners' funds and borrowed funds.

TOPICS

- Introduction, nature and importance of Business Finance
- Classification of Finance

OCTOBER

SOURCES OF BUSINESS FINANCE

Learning outcomes

After going through this unit, the student/ learner would be able to:

- State the meaning of owners' funds and borrowed funds.
- Discuss the concept of debentures, bonds, loans from financial institutions and commercial banks, Trade credit and inter corporate deposits.

TOPICS

- Classification of Finance
- Owners' funds - equity shares, preferences share, retained earnings
- Borrowed funds: debentures and bonds, Loan from financial institutions and commercial banks, public deposits, trade credit, Inter Corporate Deposits.

SOCIAL RESPONSIBILITY OF BUSINESS AND BUSINESS ETHICS

Learning outcomes

- After going through this unit, the student/ learner would be able to:
- State the concept of social responsibility.
- Examine the case for social responsibility.
- Responsibility towards owners, investors, consumers, employees, government and community.
- Appreciate the role of business in environment protection.
- State the concept of business ethics.
- Describe the elements of business ethics

TOPICS

- Concept of social responsibility
- Case for social responsibility
- Responsibility towards owners, investors, consumers, employees, government and community
- Role of business in environment protection
- Business Ethics - Concept and Elements

NOVEMBER

SMALL BUSINESS AND ENTREPRENEURSHIP DEVELOPMENT

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Understand the meaning of small business
- Discuss the role of small business in India with special reference to rural, backward areas.
- Appreciate the various Government schemes and agencies for development of small scale industries - NSIC and DIC
- Understand the concept of Entrepreneurship Development (ED), Intellectual Property Rights

TOPICS

- Small Scale Enterprise - Definition
- Role of small business in India with special reference to rural , backward area
- Government schemes and agencies for small scale industries(NSIC and DIC)
- Entrepreneurship Development(ED): Concept, Characteristics and Need
- Process of Entrepreneurship Development: Start-up India Scheme, ways to fund start-up. Intellectual Property Rights and Entrepreneurship

DECEMBER

INTERNATIONAL BUSINESS

Learning outcomes

After going through this unit, the student/ learner would be able to:

- Understand the concept of international trade
- Describe the benefits of international trade to the nation and business firms.
- Describe the scope of international trade to the nation and business firms
- Explain the important steps involved in executing export trade.
- State the meaning and objectives of import trade.
- Explain the important steps involved in executing import trade.
- Develop an understanding of the various documents used in international trade.
- Highlight the importance of the documents needed in connection with international trade transactions
- State the meaning of the World Trade Organization.

TOPICS

- International trade: concept and benefits

- Difference between internal trade and external trade, characteristics of International tradeExport Trade, Import Trade :Meaning and Procedure
- Documents involved in International Trade

JANUARY

INTERNATIONAL BUSINESS

Learning outcomes

After going through this unit, the student/ learner would be able to:

- State the meaning of the World Trade Organization.
- Discuss the objectives of the World Trade Organization in promoting international trade.

TOPICS

- WTO - Meaning and Objectives
- Revision

FEBRUARY

- Revision

Exam wise Break up

PERIODIC TEST - 1

- Nature and purpose of business
- Forms of business(Sole Proprietorship , Hindu Undivided Family Business)

MID TERM EXAM

- Nature and purpose of Business
- Forms of Business Organisation and Formation of a Company
- Public, Private and Global Enterprises
- Business Services
- Internal Trade

PERIODIC TEST - 2

- Forms of business organization (Partnership onwards and formation of a company)

PERIODIC TEST - 3

- Sources of Business Finance

ANNUAL EXAM

- Full Syllabus

POLITICAL SCIENCE 028

RATIONALE

A discipline of Social Science, Political Science deals with understanding the social structures and methods used to manage a government or State. It also encompasses the historical, philosophical, constitutional, and legal foundations of the political system. It further provides scope to identify the political values and ideas, governing institutions, and their policy making process. The subject enhances the ability to address the functions and processes of government and politics in international, national, and state levels. It ensures that students acquire citizenship skills and engage as active citizens by appreciating human diversity. This subject is interdisciplinary by nature and draws upon other social disciplines or branches of knowledge and is therefore influenced by them in many ways. At the Senior Secondary level, the curriculum of Political Science is organized in a systematic manner to facilitate students to have an understanding of political ideas, ideologies, institutions, policies, processes, and behavior, as well as groups, classes, government, law, peace and war which are the bedrock of human society and polity. The contents enrich student's writing, communication, data analysis skills and also develop knowledge about current and past political events across the world. An earnest effort is directed towards laying the foundation for a serious engagement with the discipline and developing competencies that prepare students for higher education, learning, and acquiring knowledge

Learning Outcomes

1. Indian Constitution at Work

Understand the historical circumstances and the processes in which the Constitution was drafted. Be familiar with the diverse perspectives that guided the makers of the Indian Constitution. Analyze the working of the three pillars of democracy: Legislature, Executive, and Judiciary and their role with changing times. Identify the key features of the Indian Constitution and compare these to other constitutions in the world.

2. Political Theory

Recognize the ideas, concepts, and values inherent in the political life of a citizen. Systematic reflection and critical analysis of the political phenomenon. Provides a clarity on what is 'political' in relation to 'social', 'economic', 'moral', and the like. Augment the ability of students to build a good state in a good society, and create processes, procedures, institutions, and structures which could be rationally achievable.

NCERT Political Science

Prescribed Textbooks:

- Indian Constitution at Work, Class XI, Published by NCERT 2
- Political Theory, Class XI, Published by NCERT
- Added Reference Material available with the document in the Annexure

CLASS XI COURSE STRUCTURE

PART A- INDIAN CONSTITUTION AT WORK

1. Constitution: Why and How? (4 marks)
2. Rights in the Indian Constitution (4 marks)
3. Election and Representation (6 marks)
4. Executive (4 marks)
5. Legislature (4 marks)
6. Judiciary (4 marks)
7. Federalism (6 marks)
8. Local Governments (4 marks)
9. Constitution as a Living Document (2 marks)
10. The Philosophy of theConstitution (2 marks)

BOOK-I- 40 MARKS

PART B-POLITICAL THEORY

1. Political Theory: An Introduction (4 marks)
2. Freedom (6 marks)
3. Equality(6 marks)
4. Social Justice (6 marks)
5. Rights(4 marks)
6. Citizenship (4 marks)
7. Nationalism (4 marks)
8. Secularism (6 marks)

BOOK-II-40 marks

Practical-20 marks

Project overview:

The Project work will be implemented for 20 Marks. Out of 20 marks, 10 marks are to be allotted to viva voce and 10 marks for project work. For class XII, the evaluation for 20 marks project work should be done jointly by the internal and external examiners and for class XI the evaluation can be done by the internal examiner. The project can be individual/pair/group of 4-5 each. The Project can be made on any of the topics given in the syllabus of a particular class or any contemporary issues. The project work can be culminated in the form of films, albums, songs, storytelling, debate, Role Play, Skit, Presentation, Model, Field Survey, Mock Drills/Mock Event etc. The teacher should give enough time for preparation of the Project Work. The topics for Project Work taken up by the student must be discussed by the teacher in classroom

MONTHLY SYLLABUS PLAN

BOOK-I

APRIL

1. Constitution: Why and How?
    - Why do we need a Constitution? The Constitution allows coordination and assurance Specification of decision making powers Limitations on the powers of government Aspirations and goals of a society . Fundamental identity of a people
    - The authority of a Constitution . Mode of promulgation .

MAY

2. Rights in the Indian Constitution
    - The importance of rights Bill of Rights
    - Fundamental rights in the Indian Constitution Right to Equality Right to Freedom Right against Exploitation Right to Freedom of Religion Cultural and Educational Rights Right to Constitutional Remedies
    - Directive principles of state policies.

JULY

3. Election and Representation

- Elections and democracy
- Election system in India First Past the Post System Proportional Representation
- Why did India adopt the FPTP system?

4. Executive
    - What is an executive?
    - What are the different types of executives?
    - Parliamentary executive in India Power and position of President Discretionary Powers of the President.
5. Legislature
    - Why do we need a parliament?
    - Why do we need two houses of parliament? Rajya Sabha Lok Sabha
    - What does the parliament do? Powers of Rajya Sabha.

AUGUST

6. Judiciary
    - Why do we need an independent judiciary? Independence of Judiciary Appointment of Judges Removal of Judges
    - Structure of the Judiciary
    - Jurisdiction of supreme Court.
7. Federalism
    - What is Federalism?
    - Federalism in the Indian Constitution Division of Powers
    - Federalism with a strong central government
    - Conflicts in India's federal system Centre-State Relations Demands for Autonomy Role of Governors and President's Rule.
8. Local Governments
    - Why local governments?
    - Growth of Local Government in India Local Governments in Independent India
    - 73rd and 74th amendments
    - 73rd Amendment Three Tier Structure.

SEPTEMBER

9. Constitution as a Living Document
    - Are constitutions static?
    - How to amend the constitution?
    - Why have there been so many amendments?

- Contents of amendments made so far.

10. The Philosophy of the Constitution
    - What is meant by philosophy of the constitution? Constitution as Means of Democratic Transformation
    - Why do we need to go back to the Constituent Assembly?

BOOK-II

OCTOBER

1.Political Theory: An Introduction

- What is politics?
- What do we study in political theory?
- Putting Political theory into practice
- Why should we study political theory?

2.Freedom :

- The sources of Constraints-Why do we need constraints?
- The Harm Principle
- Negative and Positive liberty.

3.Equality

- Why does equality matter?
    1. Equality of opportunities
    2. Natural and Social Inequalities
- Three dimensions of equality
- Feminism, Socialism
- How can we promote equality?

NOVEMBER

4.Social Justice

- What is Justice?
    1. Equal Treatment for Equals
    2. Proportionate Justice Recognition of Special Needs
- Just distribution
- John Rawls Theory of Justice.

5.Rights

- What are Rights?
- Where do rights come from?
- Legal rights and the state
- Kinds of rights

- Rights and responsibilities.

DECEMBER

6.Citizenship

- Introduction
- Full and equal membership
- Equal Rights
- Citizen and Nation
- Universal Citizenship
- Global Citizenship.

7.Nationalism

- Introducing Nationalism

JANUARY & FEBRUARY

8.Secularism

- What is Secularism?
    1. Inter-religious Domination
    2. Intra-religious Domination
- Secular State
- The western model of secularism
- The Indian model of secularism.

Exam wise Break up

Periodic Test - 1

Chapter-1,2

Mid term

Chapter 1,2,3,4,5,6,7,8

Periodic Test 2 -Book-2

Chapter -1 and 2

Periodic Test - 3

Chapter -3 and 4

ANNUAL EXAM

Full Syllabus

(as per CBSE, DoE) guidelines

CLASS XI SESSION 2025-26

ACCOUNTANCY (055)

Objectives: According to NEP

1. To familiarize students with new and emerging areas in the preparation and presentation of financial statements.
2. To acquaint students with basic accounting concepts and accounting standards.
3. To develop the skills of designing a need based accounting database.
4. To appreciate the role of ICT in business operations.
5. To develop an understanding about recording of business transactions and preparation of financial statements.
6. To enable students with accounting for Not-for-Profit organizations, accounting for Partnership Firms and company accounts.

TEXTBOOK

- TS GREWAL'S - DOUBLE ENTRY BOOK KEEPING (SULTAN CHAND EDUCATIONAL PUBLISHERS)

REFERENCE BOOKS

Accountancy XI
Volume I - Financial Accounting I
Volume II - Financial Accounting II
Author – Dr S C Sharma
Publisher - Arya Book Depot

LINK OF CURRICULUM BY CBSE

https://cbseacademic.nic.in/web_material/CurriculumMain26/SrSec/Accountancy_SrSec_2025-26.pdf

LINK OF NCERT TEXTBOOK

https://ncert.nic.in/textbook.php?keac1=0-7

Course Structure

Class-XI (2023-24)

Theory: 80 Marks
3 Hours

Project: 20 Marks

Units		Periods	Marks
Part A: Financial Accounting-1			
	Unit-1: Theoretical Framework	25	12
	Unit-2: Accounting Process	115	44
Part B: Financial Accounting-II			
	Unit-3: Financial Statements of Sole Proprietorship	60	24
Part C: Project Work		20	20

MONTH-WISE SYLLABUS BREAK-UP

APRIL

Part A: Financial Accounting - I

Unit 1: Theoretical Framework - Introduction to Accounting

Learning Outcomes

- describe the meaning, significance, objectives, advantages and limitations of accounting in the modern economic environment with varied types of business and non-business economic entities.
- identify/recognise the individual(s)and entities that use accounting information for serving their needs of decision making.
- explain the various terms used in accounting and differentiate between different related terms like current and noncurrent, capital and revenue. give examples of terms like business transaction, liabilities, assets, expenditure and purchases

- explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year. differentiate among income, profits and gains.

Introduction to Accounting :- Accounting- concept, meaning, as a source of information, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business.

MAY

Learning Outcomes

- explain the various terms used in accounting and differentiate between different related terms like current and noncurrent, capital and revenue. give examples of terms like business transaction, liabilities, assets, expenditure and purchases.
- explain that sales/purchases include both cash and credit sales/purchases relating to the accounting year. differentiate among income, profits and gains.
- explain the concept of accounting equation and appreciate that every transaction affects either both the sides of the equation or a positive effect on one item and a negative effect on another item on the same side of the accounting equation.
- explain the effect of a transaction (increase or decrease) on the assets, liabilities, capital, revenue and expenses.

Basic Accounting Terms- Entity, Business Transaction, Capital, Drawings. Liabilities (Non Current and Current). Assets (Non Current, Current); Expenditure (Capital and Revenue), Expense, Revenue, Income, Profit, Gain, Loss, Purchase, Sales, Goods ,Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount)

Theory Base of Accounting

Basis of Accounting: cash basis and accrual basis

Unit 2: Accounting Process and Special Accounting Treatment

Accounting equation: analysis of transactions using accounting equations.

JULY

Learning Outcomes

- explain the concept of accounting equation and appreciate that every transaction affects either both the sides of the equation or a positive effect on one item and a negative effect on another item on the same side of the accounting equation.
- explain the effect of a transaction (increase or decrease) on the assets, liabilities, capital, revenue and expenses.
- describe the meaning of accounting assumptions and the situation in which an assumption is applied during the accounting process.
- Students will be able to appreciate that on the basis of source documents, accounting vouchers are prepared for recording transactions in the books of accounts.

Theory Base of Accounting

Basis of Accounting: cash basis and accrual basis

Unit 2: Accounting Process and Special Accounting Treatment

Accounting equation: analysis of transactions using accounting equations.
Rules of debit and credit: for assets, liabilities, capital, revenue and expenses.

Origin of transactions- source documents (invoice, cash memo, pay in slip, cheque), preparation of vouchers - cash (debit and credit) and non cash (transfer). Books of original entry: format and recording - Journal. Ledger - format, posting from journal

Unit 1: Theoretical Framework - Theory Base of Accounting

Fundamental accounting assumptions: GAAP: Concept Basic Accounting Concepts : Business Entity, Money Measurement, Going Concern, Accounting Period, Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full

Disclosure, Consistency, Conservatism, Materiality and Objectivity System of Accounting. Accounting Standards: Applicability of Accounting Standards (AS) and Indian Accounting Standards (Ind AS) Goods and Services Tax (GST): Characteristics and Advantages.

AUGUST

Unit 2: Accounting Process and Special Accounting Treatment

Learning Outcomes

- Students will be able to appreciate that on the basis of source documents, accounting vouchers are prepared for recording transactions in the books of accounts.
- explain the purpose of maintaining a Cash Book and develop the skill of preparing the format of different types of cash books and the method of recording cash transactions in cash books.
- describe the method of recording transactions other than cash transactions as per their nature in different subsidiary books.
- appreciate that at times bank balance as indicated by cash book is different from the bank balance as shown by the pass book / bank statement, and to reconcile both the balances, bank reconciliation statements are prepared.
- Develop understanding of preparing bank reconciliation statements.

Recording of Transactions

Rules of debit and credit: for assets, liabilities, capital, revenue and expenses.

Origin of transactions- source documents (invoice, cash memo, pay in slip, cheque), preparation of vouchers - cash (debit and credit) and non cash (transfer). Books of original entry: format and recording - Journal. Ledger - format, posting from journal . Cash books and other special purpose books, balancing of accounts. Cash Book: Simple Cash Book, Cash Book with Discount Column and Cash Book with Bank and Discount Columns, Petty Cash Book.

Other books: purchases book, sales book, purchases returns book, sales returns book and journal

Trial balance: objectives and preparation (Scope: Trial Balance with balance method only)

Bank reconciliation statement- calculating bank balance at accounting date: need and preparation.

SEPTEMBER

Unit 2: Accounting Process and Special Accounting Treatment

Recording of Transactions

Learning Outcomes

- appreciate that at times bank balance as indicated by cash book is different from the bank balance as shown by the pass book / bank statement and to reconcile both the balances, bank reconciliation statements are prepared.
- develop understanding of preparing bank reconciliation statements.

Bank reconciliation statement- calculating bank balance at accounting date: need and preparation.

PROJECT WORK

OCTOBER

Learning Outcomes

- explain the necessity of providing depreciation and develop the skill of
    - using different methods for computing depreciation.
- understand the accounting treatment of providing depreciation directly to the concerned asset account or by creating provision for depreciation accounts.
- appreciate the method of asset disposal through the concerned asset account or by preparing an asset disposal account.

- appreciate the need for creating reserves and also making provisions for events that may belong to the current year but may happen in next year.
- appreciate the difference between reserve and reserve fund.

Depreciation, Provisions and Reserves :- Depreciation: Meaning, Features, Need, Causes, factors , and other similar terms: Depletion and amortization. Methods of Depreciation: Straight Line Method (SLM) ii. Written Down Value Method (WDV)

Note: Excluding change of method

Difference between SLM and WDV; Advantages of SLM and WDV . Method of recording depreciation

Charging to asset account ii. Creating provision for depreciation/accumulated depreciation account.

Treatment of disposal of asset Provisions, Reserves, Difference Between Provisions and Reserves.

Types of Reserves: Revenue reserve , Capital reserve , General reserve ,Specific reserve v. Secret Reserve. Difference between capital and revenue reserve

NOVEMBER

Unit 2: Accounting Process and Special Accounting Treatment

Learning Outcomes

- appreciate that errors may be committed during the process of accounting.
- understand the meaning of different types of errors and their effect on trial balance.
- develop the skill of identification and location of errors and their rectification and preparation of suspense account
- state the meaning of financial statements and the purpose of preparing financial statements.

- state the meaning of gross profit, operating profit and net profit and
- develop the skill of preparing trading and profit and loss accounts.
- explain the need for preparing a balance sheet.
- understand the technique of grouping and marshaling of assets and liabilities.

Recording of Transactions - Trial balance and Rectification of Errors :- objectives, meaning and preparation (Scope: Trial balance with balance method only)

Errors: classification-errors of omission, commission, principles, and compensating; their effect on Trial Balance. Detection and rectification of errors; Errors which do not affect trial balance ; Errors which affect trial balance , preparation of suspense account.

Part B: Financial Accounting - II

Unit 3: Financial Statements of Sole Proprietorship: From Complete and Incomplete Records

Financial Statements :- Meaning, objectives and importance; Revenue and Capital Receipts; Revenue and Capital Expenditure; Deferred Revenue expenditure. Opening journal entry. Trading and Profit and loss account: gross profit, operating profit and net profit.

DECEMBER

Part B: Financial Accounting - II

Learning Outcomes

- appreciate that there may be certain items other than those shown in trial balance which may need adjustments while preparing financial statements.
- develop the understanding and skill to do adjustments for items and their presentation in financial statements like depreciation, closing stock, provisions, abnormal loss etc.

- develop the skill of preparation of trading and profit and loss account and balance sheet.

Unit 3: Financial Statements of Sole Proprietorship: From Complete and

Incomplete Records Financial Statements: objective and importance.

Adjustments in preparation of financial statements with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors , abnormal loss, goods taken for personal use/staff welfare, interest on capital and manager's commission.

Preparation of Trading and Profit and Loss Account and Balance Sheet of sole proprietorship.

PROJECT WORK

JANUARY

Unit 3: Financial Statements of Sole Proprietorship: From Complete and

Incomplete Records Financial Statements: objective and importance.

Learning Outcomes

- Students will be able to distinguish between double entry and single entry.
- enumerate causes and limitations of incomplete records.
- Ascertain profit by conversion method.

Incomplete Records :- Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method. (excluding conversion method)

FEBRUARY

- REVISION

TEST-WISE SYLLABUS PLAN

ACCOUNTANCY

PERIODIC TEST - 1

Part A: Financial Accounting - I

Unit 1: Theoretical Framework

- ➔ Introduction to Accounting
- ➔ Basic Accounting terms

Unit 2: Accounting Process and Special Accounting Treatment

- ➔ Accounting equation

PERIODIC TEST - 2

Unit 2: Accounting Process and Special Accounting Treatment

- ➔ format and recording – Journal and Cash Book

MID TERM

Unit 1: Theoretical Framework

Unit 2: Accounting Process and Special Accounting Treatment

- ➔ Origin of transactions , Books of original entry: format and recording - Journal.
- ➔ Ledger ,Cash Book ,Other Subsidiary books , Trial Balance

PERIODIC TEST - 3

Unit 2: Accounting Process and Special Accounting Treatment

- ➔ Depreciation, Provisions and Reserve
- ➔ Trial Balance and Rectification of Errors

ANNUAL EXAM

FULL SYLLABUS

PSYCHOLOGY (037)

MONTHLY SYLLABUS PLAN

Learning Outcomes:

- Explains the role of psychology in understanding mind and behavior.
- States the different branches of psychology.
- Enumerates the usefulness of psychology in everyday life.
- Explains the goals and nature of psychological enquiry and steps required to conduct a scientific research.
- Describes important methods of psychological enquiry-qualitative and quantitative approach.
- Explores ways to imbibe ethical code of conduct in one's way of being.
- Describes the biological and sociocultural roots of behavior.
- Discusses the socio-cultural influences on shaping of behavior (i.e., family, community, faith, gender, caste, disability, etc.).
- Distinguishes the characteristics of developmental stages: infancy, childhood, adolescence, adulthood and old age.
- Records one's own course of development and related experiences.
- Explains the nature of sensory processes, i.e. how various sensory stimuli are received, attended to and given meaning.
- Describes the processes and types of attention.
- Explains the nature of learning and connection between different forms or types of learning.
- Enumerates various psychological processes that occur during learning and influence its course.
- Explains the nature of memory and distinguishes different types of memory.
- Describes the nature and causes of forgetting and the strategies for improving memory.
- Describes the nature of thinking and reasoning.
- Explains some cognitive processes involved in problem solving and decision-making.
- Differentiates between language and thought.
- Describes the nature of human motivation and crucial motives.
- Enumerates the strategies to manage one's own emotions.

TEXTBOOKS:

NCERT- Psychology Textbook for class XI

https://ncert.nic.in/textbook.php?kepy1=0-9

UNIT-WISE WEIGHTAGE :

Chapter	Topics	Marks
I	What is Psychology?	11
II	Methods of Enquiry in Psychology	13
IV	Human Development	11
V	Sensory, Attentional and Perceptual Processes	8
VI	Learning	9
VII	Human Memory	8
VIII	Thinking	5
IX	Motivation and Emotion	5
	TOTAL MARKS	**70**

MONTH-WISE SYLLABUS PLAN:

APRIL & MAY

Chapter-1 What is Psychology? (**27 Periods)**

Chapter-2 Methods of Enquiry in Psychology **(32 periods)**

JUNE - Project File (Holidays Homework)

JULY & AUGUST

Chapter-4 Human Development (**26 Periods)**

Chapter-5 Sensory, Attentional and Perceptual Processes (**18 Periods)**

SEPTEMBER & OCTOBER

Chapter- 6 Learning **(20 Periods)**

Chapter-7 Memory **(19 Periods)**

NOVEMBER & DECEMBER

Chapter-8 Thinking **(14 Periods)**

Chapter-9 Emotions **(14 Periods)**

JANUARY & FEBRUARY (REVISION)

PRACTICALS : (AUGUST-OCTOBER)

Practical (Projects, experiments, small studies, etc.) 30 marks The students shall be required to undertake ***one project and conduct two experiments.*** The project would involve the use of different methods of enquiry like observation, survey, interview, questionnaire, small studies related to the topics covered in the course (e.g. Human development, Learning, Memory, Motivation,	**60 Periods**

Perception, Attention and Thinking). Experiments could focus on cause-and-effect relationships.	

PRACTICAL EXAMINATION :

• Practical (Experiments) file	05 Marks
• Project File	05 Marks
• Viva Voce (Project and experiments)	05 Marks
• One experiment (05 marks for conduct of experiment and 10 marks for reporting)	15 Marks
Total	**30 Marks**

Exam wise Syllabus Plan

Periodic Test 1

- Chapter 1: What is Psychology?

Mid Term

- Chapter 1- What is Psychology?
- Chapter 2- Methods of Enquiry in Psychology
- Chapter 4- Human Development
- Chapter 5- Sensory, Attentional and Perceptual Processes

Periodic Test 2

- Chapter 6: Learning
- Chapter 7: Memory

Periodic Test 3

- Chapter 8: Thinking
- Chapter 9: Emotions
-

Annual Examination

- Chapter 1- What is Psychology?

- Chapter 2- Methods of Enquiry in Psychology
- Chapter 4- Human Development
- Chapter 5- Sensory, Attentional and Perceptual Processes
- Chapter 6: Learning
- Chapter 7: Memory
- Chapter 8: Thinking
- Chapter 9: Emotions

ECONOMICS (code 030)

LEARNING OUTCOMES

1. Understanding of some basic economic concepts and development of economic reasoning which the learners can apply in their day-to-day life as citizens, workers and consumers.
2. Realization of learners' role in nation building and sensitivity to the economic issues that the nation is facing today.
3. Equipment with basic tools of economics and statistics to analyze economic issues. This is pertinent for even those who may not pursue this course beyond senior secondary stage.
4. Development of understanding that there can be more than one view on any economic issue and necessary skills to argue logically with reasoning.

TEXT BOOKS

Reference Book:

1. PART A (STATISTICS FOR ECONOMICS)
    a. INTRODUCTORY STATISTICS for class XI by
2. SANDEEP GARG (DHANPAT RAI PUBLICATIONS)
    a. PART B (INTRODUCTORY MICROECONOMICS)

Chapter wise Marks Distribution

PART A (STATISTICS FOR ECONOMICS)

UNIT MARKS	
Unit1: Introduction &	15
Unit2: Collection,Organisation and Presentation of Data	
Unit3: Statistical Tools and Interpretation	25
Total	40

PART B (INTRODUCTORY MICROECONOMICS)

UNITS MARKS	
Unit4: Introduction	04

Unit5: Consumer’s Equilibrium and Demand
15
Unit6: Producer Behavior and Supply
15
Unit7: Forms of Market and Price Determination under perfect competition with simple applications
06
Total 40

MONTH-WISE SYLLABUS BREAK-UP

April
Microeconomics
Unit- Introduction
Chapter 1: Introduction to Microeconomics
Meaning of Microeconomics and Macroeconomics ; positive and normative economics.
What is an economy? Central problems of an economy: What, how and for whom to produce; concepts of production possibility frontier and opportunity cost
Statistics
Unit-Introduction
Chapter 1: Introduction to Statistics

May
Unit- Collection, Organisation and Presentation of data
Chapter 2: Collection of Data
Collection of data - sources of data - primary and secondary; how basic data is collected; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organization.
Chapter 3: Organization of Data
Organization of Data: Meaning and types of variables; Frequency Distribution.

July
Unit-Consumer equilibrium & Demand
Chapter 2: Consumer’s Equilibrium
Meaning of utility, marginal utility, law of diminishing marginal utility. Consumer’s equilibrium - conditions of consumer’s equilibrium using marginal utility analysis.
Indifference curve analysis of consumer’s equilibrium-the consumer’s budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer’s equilibrium.

Chapter 3: Theory of demand
Chapter 4: Elasticity of demand
Demand, market demand, determinants of demand, Demand schedule, demand curve, movement along and shifts in the demand curve; price elasticity of demand-factors affecting price elasticity of demand; measurement of price elasticity of demand- percentage-change method

August & September
Statistics
Unit- Collection, Organization and Presentation of data
Chapter 4: Tabular Presentation

Chapter 5: Diagrammatic Presentation
Chapter 6: Graphic Presentation
Presentation of Data: Diagrammatic Presentation of Data: (i) Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and ogive) and (iii) Arithmetic line graphs (time series graph).

Microeconomics
Unit-Producer Behaviour and supply
Chapter 9: Supply
Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in the supply curve; price elasticity of supply; measurement of price elasticity of supply -percentage-change method

October
Microeconomics
Unit- Determination of equilibrium price, shifts in demand & supply
Chapter 11: Price determination and simple applications
Simple applications of tools of Demand and Supply: Price ceiling, price floor
Statistics
Unit- Statistical Tools and Interpretation
Chapter 7: Measures of Central Tendency
Measures of Central Tendency-Arithmetic Mean (simple mean)

NOVEMBER
Unit -Statistical Tools and Interpretation
Chapter 7: Measures of Central Tendency(Contd.)
Measures of Central Tendency-Arithmetic Mean
Partition Values –Median,Mode
(For all the numerical problems and solutions, the appropriate economic interpretation may be attempted. This means, the students need to solve the problems and provide interpretation for the results derived.)

Microeconomics
Unit- Forms of market
Chapter 10: Main Market Forms
Perfect Competition-Features; Determination of market equilibrium and effects of shifts in demand and supply.
Other market forms-monopoly, monopolistic competition- their meaning and features.

DECEMBER
Microeconomics
Unit-Producer Behaviour and supply
Chapter 5: Production Function
Short run and long run Total Product, Average Product and Marginal Product. Returns to a factor.
Chapter 6: Cost
Short run costs-total cost, total fixed cost, total variable cost; Average fixed cost, average variable cost and marginal cost-meaning and their relationship.
Chapter 7: Revenue
Revenue-total, average and marginal revenue-meaning and their relationships
Chapter-8: Producer's equilibrium
Producer's equilibrium-meaning and its conditions in terms of marginal revenue and marginal cost.

JANUARY
Statistics
Unit-Statistical Tools and Interpretation
Chapter 9: Measures of Correlation
Correlation - meaning, scatter diagram; Measures of correlation - Karl Pearson's method (two variables ungrouped data), Spearman's rank correlation.
Chapter10: Index Numbers
Introduction to Index Numbers - meaning, types - wholesale price index, consumer price index
PROJECT WORK Part C: Developing Projects in Economics
The students may be encouraged to develop projects, which have primary data, secondary data or both. Case studies of a few organizations / outlets may also be encouraged. Under this the students will do one project each from Part A and Part B. Some of the examples of the projects are as follows (they are not mandatory but suggestive) :

I. A report on demographic structure of your neighborhood.
II. Changing consumer awareness amongst households.
III. Dissemination of price information for growers and its impact on consumers.

IV. Study of a cooperative institution: milk cooperatives, marketing cooperatives, etc.
V. Case studies on public private partnership, outsourcing and outward Foreign Direct Investment.
VI. Global warming.
VII. Designing eco-friendly projects applicable in school, such as paper and water recycling.

The idea behind introducing this unit is to enable the students to develop the ways and means by which a project can be developed using the skills learned in the course. This includes all the steps involved in designing a project starting from choosing a title, exploring the information relating to the title, collection of primary and secondary data, analyzing the data, presentation of the project and using various statistical tools and their interpretation and conclusion.

FEBRUARY

- REVISION

Exam wise Break up

PERIODIC TEST - 1

Microeconomics
Unit-1 Introduction to microeconomics

Statistics
Unit-Introduction
Chapter 1: Introduction to Statistics
Ch.2 Collection Of Data

MID-TERM EXAMS

Microeconomics
Unit-1 Introduction
Unit-2 Consumer equilibrium & Demand
Unit-3 Producer Behaviour and supply
Ch. Theory of supply and elasticity of supply only

Statistics:
Ch.1 Introduction to statistics
Ch.2 Collection Of Data
Ch.3 Organisation of Data
Ch.5 Diagrammatic Presentation
Ch.6 Graphic Presentation

PERIODIC TEST - 2

Microeconomics

Unit-4 Determination of equilibrium price, shifts in demand & supply

Statistics:
Ch.4 Tabular Presentation
Ch.7 Measures of Central Tendency, Positional Average & Partition values

PERIODIC TEST - 3
Microeconomics
Unit-7: Forms of market
Chapter 10: Main Market Forms

Statistics
Ch.7 Measures of Central Tendency, Positional Average & Partition values

ANNUAL EXAMINATION
Full Syllabus

PHYSICAL EDUCATION (048)

MONTH-WISE SYLLABUS BREAK-UP

JULY

- ➔ Unit I Changing Trends & Career in Physical Education
- ➔ Concept, Aims & Objectives of Physical Education
- ➔ Changing Trends in Sports- playing surface, wearable gears and sports equipment, technological advancements
- ➔ Career Options in Physical Education
- ➔ Khelo-India Program

Unit II Olympism Value Education

- ➔ Ancient and Modern Olympics
- ➔ Olympism – Concept and Olympics Values (Excellence, Friendship & Respect)
- ➔ Olympics value Education
- ➔ Olympics - Symbols, Motto, Flag, Oath, and Anthem
- ➔ Olympic Movement Structure - IOC, NOC, IFS, Other members

AUGUST

- ➔ Unit III Yoga
- ➔ Meaning & Importance of Yoga
- ➔ Introduction to Ashtanga Yoga

- ➔ Introduction to Yogic Kriyas (Shat Karma)
- ➔ Pranayam and its types
- ➔ Active Lifestyle and stress management Through Yoga

Unit IV Physical Education & Sports for CWSN (Children with Special Needs - Divyang)

- ➔ Concept of Disability and Disorder
- ➔ Types of Disability, its causes & nature (Intellectual disability, Physical disability)
- ➔ Disability Etiquettes
- ➔ Aim & Objective of Adaptive Physical Education
- ➔ Role of various professionals for children with special needs
- ➔ (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator)

SEPTEMBER

Unit V Physical Fitness, Health and Wellness

- ➔ Meaning and Importance of Wellness, Health and Physical Fitness
- ➔ Components/Dimensions of Wellness, Health and Physical Fitness
- ➔ Traditional Sports & Regional Games for promoting wellness
- ➔ Leadership through Physical Activities and sports

OCTOBER

Unit VI Test, Measurement & Evaluation

- ➔ Define Test, Measurement & Evaluation
- ➔ Importance of Test
- ➔ Measurement & Evaluation in Sports
- ➔ Classification of Test in Physical Education and Sports
- ➔ Test administration guidelines in Physical Education and Sports
- ➔ BMI, Waist-Hip Ratio, Skinfold Measures (3-site)

NOVEMBER

Unit VII Fundamentals of Anatomy, Physiology in Sports

- ➔ Definition and importance of Anatomy and Physiology in Exercise And Sports.

- ➔ Functions of Skeletal System, Classification of Bones and Types of Joints.
- ➔ Properties and Functions of Muscles.
- ➔ Structure and Functions of Circulatory System and Heart.
- ➔ Structure and Functions of Respiratory System.

Unit VIII Fundamentals of Kinesiology and Biomechanics in Sports

- ➔ Definition and Importance of Kinesiology and Biomechanics in sports
- ➔ Principles of Biomechanics
- ➔ Kinetics and Kinematics in Sports
- ➔ Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation

Axis and Planes – Concept and its application in body movements

DECEMBER

Unit IX Psychology & Sports

- ➔ Definition & Importance of Psychology in Physical Education & Sports;
- ➔ Developmental Characteristics at Different Stages of Development;
- ➔ Adolescent Problems & their Management;
- ➔ Team Cohesion and Sports;
- ➔ Introduction to Psychological Attributes: Attention, Resilience, Mental Toughness

JANUARY & FEBRUARY

Unit X Training and Doping in Sports

- ➔ Concept and Principles of Sports Training
- ➔ Training Load: Overload, Adaptation, and Recovery
- ➔ Warming-up & Limbering Down – Types, Method & Importance
- ➔ Concept of Skill, Technique, Tactics & Strategies
- ➔ Concept of Doping and its disadvantages

EXAM-WISE SYLLABUS BREAK-UP

Periodic Test 1
Unit - 1
Periodic Test 2
Unit – 3 and 4
Mid Term Exam
Unit – 1 to 5

Periodic Test 3
Unit – 7 and 8
Annual Exam
Complete Syllabus

GEOGRAPHY
Subject Code: 029
Classes XI (2025-26)

LEARNING OBJECTIVES

The course in Geography will help learners to:

- ➔ Familiarise with key concepts, terminology and core principles of Geography.
- ➔ Describe locations and correlate with Geographical Perspectives.
- ➔ List/describe what students might see, hear and smell at a place. · List/describe ways a place is linked with other places.
- ➔ Compare conditions and connections in one place to another.
- ➔ Analyse/ describe how conditions in one place can affect nearby places. Identify regions as places that are similar or connected.
- ➔ Describe and interpret the spatial pattern features on a thematic map. Search for, recognize and understand the processes and patterns of the spatial arrangement of the natural features as well as human aspects and phenomena on the earth's surface.
- ➔ Understand and analyse the interrelationship between physical and human environments and utilize such knowledge in reflecting on issues related to community.
- ➔ Apply geographical knowledge and methods of inquiry to emerging situations or problems at different levels-local, regional, national and global.
- ➔ Develop geographical skills, relating to collection, processing and

analysis of spatial data/ information and preparation of report including maps and graphs and use of computers wherever possible; and to be sensitive to issues.

➔ The child will develop the competency to analyse, evaluate, interpret and apply the acquired knowledge to determine the environmental issues effectively.

CLASS: XI

Prescribed Books:

1.Fundamentals of Physical Geography, Class XI, Published by NCERT 2. India, Physical Environment, Class XI, Published by NCERT

3. Practical Work in Geography Part I, Class XI, Published by NCERT

Links for NCERT textbooks:

1. **https://ncert.nic.in/textbook.php?kegy2=0-14**
2. **https://ncert.nic.in/textbook.php?kegy1=0-6**
3. **https://ncert.nic.in/textbook.php?kegy3=0-6**

Note:

2. Kindly refer to the latest editions of all NCERT Textbooks.

CLASS XI
COURSE STRUCTURE

COURSE CONTENT – XI

Book- Fundamentals of Physical Geography

Unit 1: Geography as a Discipline (APRIL)	**Chapter 1 Geography as a Discipline** · Introduction to Geography as a discipline · Geography as an integrating discipline: Spatial and Temporal synthesis · Approaches to study Geography: Systematic and Regional · Branches of Geography: Physical Geography, Human Geography and Biogeography · Physical Geography and its importance.

Unit 2: The Earth **(MAY & JULY)**	**Chapter 2 The Origin and Evolution of The Earth** ● Origin and evolution of the earth ● Early theories: Origin of the Earth ● Modern Theories: Origin of the universe ● Formation of Stars and Planets ● Evolution of the Earth: Lithosphere, Atmosphere and Hydrosphere ● Origin of Life **Chapter 3 Interior of the Earth** ● Sources of Information about the Interior of the Earth (Direct and Indirect) ● Earthquakes: Earthquake Waves, Shadow zones, Types, Scales to measure earthquake intensity, effects, frequency of earthquake occurrences ● Structure of the Earth ● Volcanoes and Volcanic landforms

	Chapter 4 Distribution of Oceans and Continents ● Continental Drift Theory, and Evidence in support of Continental Drift and Force for Drift ● Post Drift Studies ● Ocean Floor Configuration ● Distribution of Earthquakes and Volcanoes ● Concept of Seafloor Spreading ● Plate Tectonics: Types of Plate boundaries, Rate and forces for the Plate Movement ● Movement of the Indian Plate
Unit 3: Landforms **(JULY)**	**Chapter 5 Geomorphic processes** · Geomorphic processes: Exogenic and Endogenic · Endogenic Process: Diastrophism, Volcanism · Exogenic Processes Weathering, landslides. · Soil: Processes and factors of Soil Formation **Chapter 6 Landforms and their Evolution** ● **Running water:** Erosional and Depositional Landforms ● **Wind:** Erosional and Depositional Landforms

Unit 4: Climate (AUGUST & OCTOBER)	**Chapter 7 Composition and Structure of Atmosphere** · Atmosphere- composition and structure; elements of weather and climate **Chapter 8 Solar Radiation, Heat Balance and Temperature** · Solar radiation: Variability of Insolation. · Processes of Heating and Cooling of Atmosphere · Terrestrial Radiation · Heat budget of the earth · Temperature- Factors controlling temperature; Horizontal distribution of temperature; Inversion of temperature **Chapter 9 Atmospheric Circulation and Weather Systems** ● Atmospheric Pressure: Horizontal and Vertical Variation of Pressure ● Forces affecting velocity and direction of Wind ● General Circulation of the atmosphere: Pressure belts; Winds: Planetary, Seasonal and Local; Air masses and Fronts; Tropical and Extratropical cyclones; Thunderstorms and Tornadoes **Chapter 10 Water in the Atmosphere** · Humidity-Absolute and Relative humidity · Evaporation and condensation- · Different Forms of Condensation: dew, frost, fog, mist and cloud;

	· Precipitation · Types of Rainfall and world distribution of rainfall **Chapter 11 World Climate and Climate Change** **(To be tested through internal assessments in the form of project and presentation)**

Unit 5: Water (Oceans) **(JANUARY)**	**Chapter 12 Water (Oceans)** · Hydrological Cycle · Major and Minor Relief Features of the Ocean Floor · Temperature and Salinity of Ocean Waters: Factors, Horizontal and Vertical distribution of temperature and Salinity **Chapter 13 Movements of Ocean Water** · Movements of ocean water- Waves, Tides and Currents.
Unit 6: Life on the Earth	**Chapter 14 Biodiversity and Conservation** **(To be tested through internal assessments in the form of project and presentation)**
Book- India- Physical Environment	
Unit 1: Introduction (APRIL)	**Chapter 1** India — Location, Size, Latitudinal and Longitudinal extent, Indian Standard time, India and its neighbours
Unit 2: Physiography **(OCTOBER)**	**Chapter 2 Structure and Physiography** · Physiographic Divisions: (1) The Northern and North-eastern Mountains (2) The Northern Plain (3) The Peninsular Plateau (4) The Indian Desert (5) The Coastal Plains (6) The Islands. **Chapter 3 Drainage System** · Drainage patterns · Concepts of River basin, Catchment Area, Watershed · Drainage and River systems of India: the Himalayan and the Peninsular · Extent of Usability of River Water- linking of rivers, problems in using river water and water pollution
Unit 3: Climate, Vegetation and Soil **(NOVEMBER)**	**Chapter 4 Climate** ● Weather and climate ● Unity and diversity in the Monsoon Climate ● Factors determining the climate of India ● The Nature and characteristics on Indian Monsoon ● The Rhythm of Seasons ● Distribution of Rainfall

	● Monsoon and the Economic Life in India ● Global Warming **Chapter 5 Natural Vegetation** ● Natural vegetation - Introduction ● Forest types and distribution ● Conservation of forests ● Wildlife; conservation; biosphere reserves
Unit 4: Hazards and Disasters : Causes, Consequences and Management	**Chapter 6 Natural Hazards and Disasters** **(To be tested through internal assessment in the form of Projects and presentation)**
Book- Geography Practical Part I	

Chapter 1 Introduction to Maps (JULY)

- Essentials of map making
- History of map making
- Maps -types
- Uses of maps

Chapter 2 Map Scale (AUGUST)

- Scales-methods and construction
- Conversion of scale

Chapter 3 Latitude, Longitude and Time (APRIL)

- Drawing of Parallels of latitude and Meridians of longitude
- Longitude and time
- International date line

Chapter 4 Map Projections (NOVEMBER)

· Map projection- typology, construction and properties of projection: Conical with one standard parallel and Mercator's projection. (only two projections)

Chapter 5 Topographical Maps (DECEMBER)

- Study of topographic maps (1 : 50,000 or 1 : 25,000 Survey of India maps); Conventional Symbols, contour cross section and identification of landforms slopes, hills, valleys, waterfall, cliffs; distribution of settlements

Chapter 6 Introduction to Remote Sensing (JANUARY)

· Satellite imageries, stages in remote sensing data-acquisition, platform and sensors and data products, (photographic and digital)

Map Work
Book- Fundamentals of Physical Geography
(Map items for locating and labelling only on the outline political world map)

Chapter	**Map item (Map present on official website of Govt. of India should be used)**
Chapter 4 Distribution of oceans and	· Political Map of all Continents of the world. · Major Oceans of the world: Indian Ocean, Pacific Ocean, Atlantic Ocean, Arctic Ocean, Southern Ocean · Major lithospheric plates and Minor lithospheric plates, Ring of fire (Pacific Ocean), Mid Atlantic Ridge.

continents	
Chapter 9 Atmospheric Circulations and Weather Systems	**Major Hot Deserts of the world:** · Mojave Desert- Nevada, US · Patagonian Desert- Argentina · Sahara- Africa · Gobi Desert- Mongolia, Asia · Thar desert- India · Great Victoria Desert- Australia
Chapter 12 Water (Oceans)	· Major Seas · Black sea · Baltic sea · Caspian Sea · Mediterranean Sea · North Sea · Red sea Bay of Fundy (Canada)-Famous for the highest tides in the world
Chapter 13 Movements of Ocean Water	**Ocean Currents** **<u>Cold currents Warm currents</u>** · Humboldt c. · Alaska c. · California c. · Brazilian c. · Falkland c. · Agulhas c. · Canaries c. · Kuroshio c. · West Australian c. · Gulf stream c. · Oyashio c. · Labrador c
Chapter 14 Biodiversity and Conservation	**Ecological hotspots** · Eastern Himalaya, India · Western ghats, India · Indonesia, Asia · Eastern Madagascar, Africa · Upper Guinean forests, Africa · Atlantic forest, Brazil Tropical Andes

Map Work **Book- India Physical Environment** **(Map items for locating and labelling only on the outline political map of India)**	
Chapter	**Map item (Map present on official website of Govt. of India should be used)**
Chapter 1 **India- Location**	· Latitudinal extent of India · Longitudinal extent of India · Standard Meridian of India · Important latitude passing through India (Tropic of Cancer) · Southern Most Point of mainland of India (Kanya Kumari)
Chapter 2 **Structure and Physiography**	· Mountains: Karakoram Range, Garo- Khasi- Jaintia hills, Aravalli Range, Vindhya Range, Satpura Range, Western ghats & Eastern ghats · Peaks: K2, Kanchenjunga, Nandadevi, Nanga Parvat, Namcha Barwa and Anaimudi · Passes: Shipkila, Nathula, Palghat, Bhor ghat and Thal ghat · Plateaus: Malwa, Chhotnagpur, Meghalaya and Deccan Plateau. · Coastal Plains: Saurashtra, Konkan, North and South Kanara, Malabar, Coromandel and Northern Circars · Islands: Andaman & Nicobar Islands and Lakshadweep Islands
Chapter- 3 **Drainage System**	· Rivers: Brahmaputra, Indus, Satluj, Ganga, Yamuna, Chambal, Damodar, Mahanadi, Krishna, Kaveri,Godavari, Narmada, Tapti and Luni · Lakes: (Identification)Wular, Sambhar, Chilika, Kolleru, Pulicat & Vembanad · Straits, Bays , Gulfs: Palk Strait, Rann of Kachchh, Gulf of Kachchh, Gulf of Mannar & Gulf of Khambat
Chapter-4 **Climate**	· Area with highest temperature in India · Area with lowest temperature in India · Area with highest rainfall in India · Area with lowest rainfall in India

Chapter-5 Natural Vegetation	(Identification on an outline map of India) Tropical evergreen, Tropical deciduous, Tropical thorn, Montane and Littoral/ Swamp forests. Wildlife reserves: (locating and labeling) · National Parks: Corbett, Kaziranga, Ranthambore. Shivpuri, Simlipal · Bird Sanctuaries: Keoladev Ghana and Ranganathitto · Wild life Sanctuaries: Periyar, Rajaji, Mudumalai, Dachigam,

Guidelines for Internal Assessment/ Geography Practical

1. A practical file must be prepared by students covering all the topics prescribed in the practical syllabus.

2. The file should be completely handwritten with a cover page, index page and acknowledgment.

3. All practical works should be drawn neatly with appropriate headings, scale, index etc. Data can be taken from the NCERT textbook.

4. The practical file will be assessed at the time of term end practical examinations. 5. A written exam of 25 marks will be conducted based on prescribed practical syllabus. 6. Viva will be conducted based on practical syllabus only.

7. Written Exam -25 Marks

8. Practical file- 03 Marks

9. Viva- 02 Marks

Exam wise Break up

PERIODIC TEST 1

- **Chapter 1 India — Location (India Book)**
- **Chapter 1 Geography as a Discipline (Physical Geography book)**

MID TERM EXAM

Chapter 1 India — Location (India Book)
Chapter 1 Geography as a Discipline
Chapter 2 The Origin and Evolution of The Earth

Chapter 3 Interior of the Earth
Chapter 4 Distribution of Oceans and Continents
Chapter 5 Geomorphic processes

Chapter 6 Landforms and their Evolution

PERIODIC TEST 2

- **Chapter 2 Structure and Physiography**
- **Chapter 7 Composition and Structure of Atmosphere**

PERIODIC TEST 3

Chapter 9 Atmospheric Circulation and Weather Systems

ANNUAL EXAM

- Full Syllabus