Class Manual (2026-27)

Class-11

English

Term I

Hornbill

L-1 The Portrait Of A Lady

Activity: Students will undertake a project on audio recording the life story of their family members

L-2 We Are Not Afraid to Die …… If We Can All Be together

Activity: Collect information about the seas your would like to navigate. Study their specific features and write the kind of practice and preparation required to navigate them.

Poetry: A Photograph

Activity: Imagine yourself as Shirley Toulson and develop a dialogue between you and your daughter about the Photograph

Snapshots

L:1 The Summer of the Beautiful White Horse

Activity: Narrate to the class an incident that changed you from doing wrong to right

Reading Comprehension

Writing: Advertisement and Poster making

Grammar: Determiners

Unit Test 1 Snapshots – L:5 Birth

Hornbill

L:3 Discovering Tut: The Saga Continues

Activity: Archaeology is a field of study that employs technology and is a lot more interesting than we may think. It is much more than just digging. Find out how archaeologists carry out studies and researches at many ancient sites that have been discovered recently

Snapshots

L:2 The Address Poem – The tale of Helon City

Activity: Narrative Technique Dialogue form of the lessons, Choose a scene and attempt a script writing on it.

Poetry: The Voice of Rain

Activity: Write a short poem on your feeling when you get wet in the rain

Reading: Note Making

Writing: Speech Writing
Grammar: Tenses

Term II

Hornbill L:4 The Ailing Planet: The Green Movement's Role
Activity: Imagine yourself as a reporter from a leading newspaper and a friend of yours as the earth. Imagine an interview with the Earth wherein the Earth shares is ailing condition.
L:5 Mother's Day
Activity: Role Play
Debate: Reading plays is more interesting than studying science.
Poetry: Childhood
Activity: Compose a poem on Childhood
Writing Debate Writing: Poster
Grammar: Reordering / Transformation of sentences

Unit Test II

Flamingo
My Mother at Sixty Six
Keeping Quiet
Aunt Jennifer's Tigers
Writing: Letter to the school or college authorities regarding admission and school issues

Terminal Examination II

Entire Syllabus and L:1 The last lesson (Flamingo) Lost spring
L:2 The Tiger King (Vistas) The Third Level (Vistas)

Maths

Unit-I: Setsand Functions

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). Power set. Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement.

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 $R \times R \times R$). 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 and functions.

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 $\sin^2 x + \cos^2 x = 1$, 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 sin$x$, sin$y$, cos$x$ & cos$y$ and their simple applications. Deducing identities like the following: tan $(x \pm y)$ = tan$x$ ± tan$y$
1∓ tan$x$ tan$y$ 1, cot $(x \pm y)$ = 1 cot$x$ cot$y$ ∓1 cot$y$ ± cot$x$ sinα±sinβ =2sin 2 (α±β) cos (α∓β) 2 cosα+cosβ=2 cos 1 (α+β) cos 2 1 1 (α-β) 2 1 cosα–cosβ=–2sin (α+β) sin 2 (α–β) 2
Identities related to sin2x, cos2x, tan2x, sin3x, cos3x and tan3x. General solution of trigonometric equations of the type sin$y$=sin$a$, cos$y$=cos$a$ and tan$y$=tan$a$.

Unit-II: Algebra

2. Complex Numbers and Quadratic Equations (15) Periods

Need for complex numbers, especially √=1, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Arg and plane and polar representation of complex numbers. Statement of Fundamental
Theorem of Algebra (with real coefficients) in the complex number system.

3. Linear Inequalities (15) Periods

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

4. Permutations and Combinations (10) Periods

Fundamental principle of counting. Factorial n (n!) Permutations and combinations, derivation of Formulae for a prandnor and their connections, simple applicatioons.

5. Binomial Theorem (10) Periods

Historical perspective, statement and proof of the binomial theorem for positive integral indices.

6. Sequence and Series (10) Periods

Sequence and Series. Geometric Progression (G.P.), general term of a G.P., sum of a terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.).

Unit-III: Coordinate Geometry

k=1 k=1 k=1

1. Straight Lines (10) Periods

Brief recall of two dimensional geometry from earlier classes. Shifting of origin. 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 and normal form. General equation of a line. Equation of family of lines passing through the point of intersection of two lines. Distance of a point from a line.

2. Conic Sections (20) Periods

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

3. Introduction to Three-dimensional Geometry (10) Periods

Coordinate axes and coordinate planes in three dimensions.

Coordinates of a point. Distance between two points and sections formula.

Unit-IV: Calculus

1. Limits and Derivatives (20) Periods

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

Unit-V: Mathematical Reasoning

1. Mathematical Reasoning (10) Periods

Mathematically acceptable statements. Connecting words/phrases-consolidating the understanding of "if and only if (necessary and sufficient) condition", "implies", "and/or", "implied by", "and", "or", "there exists" and their use through variety of examples related to real life and Mathematics. Validating the statements involving the connecting words, difference among contradiction, converse and contrapositive.

Unit-VI: Statistics and Probability

1. Statistics (15) Periods

Mean deviation, variance and standard deviation of ungrouped/ grouped data. Analysis of frequency distribution with royal means butt different variances.

2. Probability (15) Periods

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

Biology

Term-I

Chapter : 1. Living World
Biological Classification
Plant Kingdom

Unit Test-I

Chapter : 4. Animal Kingdom
8. Cell-Unit of Life

Terminal Examination I

Chapter : 9. Biomolecules
10. Cell cycle & cell division
Breathing and Exchange of Gases
Body Fluids and Circulation

Unit Test-II MORPHOLOGY OF PLANTS

Chapter : 19 Excretory products & their Elimination
20. Locomotion and movement
21. Natural control & co-ordination
22. Chemical co-ordination and Integration

Photosynthesis in higher plants
Respiration in Plants
STRUCTURAL ORGANIZATION OF ANIMAL (PROG)
Terminal Examination II
Practical Exams - Entire Syllabus

Physics

Term-I
Unit-I Physical World and Measurement
Unit-II Kinematics
Practical
i) Use of Vernier Calliper to measure various Dimensions
a) For spherical bob
b) For rectangular body
c) Beaker
Unit Test-I
Unit-III Laws of Motion
Practical
Use of screw gauge to measure thickness of a paper, radius of wire, volume of an irregular lamina.

Unit-IV
Work, Power & Energy
Practical
Term-I Exam

Term-II
Unit-V
Rotational Motion
Practical
Use of simple pendulum to establish relation between L & T

Unit-VI
Use of simple pendulum to establish relation between L & T

Unit-VI
Gravitation
Practical
Establish parallelogram law of vector addition
Unit Test-II

Unit-VIII Properties of Bulk Matter
Practical

Unit-VIII Thermodynamics
Practical

Unit-IX Kinetic Theory of Gases
Unit-X Oscillations and Waves
IInd Terminal Examination (Entire Syllabus)

Chemistry

Term-1
Unit-I Some Basic Concepts in Chemistry
Demonstration-based activity to explain different concentrations of solution
Unit-II Structure of Atom
Activity: Chemistry quiz
Unit-III: Classification of Elements and Periodic Properties
Activity: Mnemonics to crack periodic table

Unit Test 1
Unit-IV Chemical Bonding and Molecular Structure
Activity: Ball and stick model
Activity: Balloon and syringe
Unit-V Thermodynamics
Activity: Mixing Simulation

Terminal Examination I
Unit-VI Chemical equilibrium, Ionic equilibrium
Activity: Baking soda and vinegar volcano
Unit-VII Redox reactions
Worksheet
Unit Test II

Term-II
Unit-IX Organic Chemistry - Some basic principles and Technique qualitative analysis
Activity: Detection of different elements present in given organic compound
Unit-X Hydrocarbons
Activity: To test aliphaticity and aromaticity of organic compounds
Terminal Examination II

Business Studies

Term 1

Unit Test-1

1. Nature and Purpose of Business
2. Forms of Business Organizations
3. Public, Private and Global Enterprises

1st Terminal Exam

Entire Syllabus of Term 1

1. Nature and Purpose of Business
2. Forms of Business Organizations
3. Public, Private and Global Enterprises
4. Business Services
5. Emerging Modes of Business

Term-2

Unit Test 2

1. Social Responsibilities and Business Ethics of Business
2. Sources of Business Finance
3. Small Business

Terminal Exam-II

1. Social Responsibilities and Business Ethics of Business
2. Sources of Business Finance - Topic deleted - Borrowed funds Inter Corporate Deposits
3. Role of Small Scale Industries
4. Internal Trade
5. International Trade

And syllabus of Term 1 also.

Field trip – Visit to commercial bank

Accountancy

Unit Test I

1. Meaning & Objectives of Accounting
2. Basic Accounting Terms
3. Accounting Principles
4. Journal

Term–I

1. Meaning & Objectives of Accounting
2. Basic Accounting Terms

3. Accounting Principles
4. Journal
5. Cash Book
6. Ledger
7. Trial Balance and Errors
8. Bank Reconciliation Statement

Terminal Exam I
Entire Syllabus of Term-I
Unit Test II
1. Depreciation
2. Financial Statements
3. Financial Statements with Adjustments

Term II
1. Depreciation
2. Provisions & Reserves
3. Bils of Exchange
4. Rectification of Errors
5. Financial Statements
6. Financial Statements - with Adjustments
7. Computerised Accounting System

Terminal Exam II
Entire Syllabus of Term 1 and 2
Comprehensive Project Work in December

Economics

Term-I
Introduction of Micro Economics.
Consumer's Equilibrium and Demand.
Introduction of Statistics.
Measures of Central Tendency Median and Mode.
Census and Sample Methods of Collection of Data.

Terminal I – All the topics covered from both the books
Term-II
Production Behaviours and Supply
Forms of Market and Price Determination, Correlation
Index Numbers
Organization of Data

Presentation of Data - Textual, Tabular, Diagrammatic and Graphic Presentation.

Terminal 2 Examination
Full Syllabus of Terminal I & II. (80 Marks)
Project work – 20 marks (topics will be allotted by the teacher)
Field trip – visit to commercial bank.

Psychology

Term-I
Ch-1 – Introduction to Psychology
Ch-2 – Methods of Enquiry in Psychology
Ch-3 – Human Development
Ch-4 – Attentional, Sensation and Perceptual processes
Practical – Emotional Intelligence
One project file on any topic of Psychology

Term-2
Ch-5 – Learning
Ch-6 – Human Memory
Ch-7 – Motivation and Emotion
Practical – Self-Concept Questionnaire

Home Science

Term - I
Ch 1. Human Ecology and Family Sciences
Ch 2. Understanding the Self
A. What makes me I?
B. Development and Characteristics of the Self
C. Influence on Identity
How do we Develop a Sense of Self?
Ch 3. Food, Nutrition, Health and Fitness
Ch 4. Management of Resources
Ch 5. Fabrics around us
Ch 6. Media and Communication Technology

Term - II
Ch 7. Concerns and Needs in Diverse Context
A. Nutrition, Health and Hygiene
B. Resource Availability and Management
Ch 8. Survival Growth and Development

Ch 9. Nutrition, Health and Wellbeing
Ch 10. Our Apparel
Ch 11. Health and Wellness
Ch 12. Financial Management and Planning
Ch 13. Care and Maintenance of Fabrics

Painting

Term I

Unit I

- Prehistoric rock paintings
  Introduction, Period and Location
  i) Wizards' Dance, Bhimbetka
- India Valley Civilization
  Introduction, Period and Location
  Traces of Artistic Things
  Sculptures : i) Dancing Girl, ii) Male Torso, iii) Mother Goddess, iv) Bull Seal
  Practical : Sketching (Pencil Shading)

Unit Test I

Unit II

- Buddhist, Jain and Hindu Art
  General Introduction to art during the Shunga, Kushana (Gandhara and Mathura styles) and Gupta period
  Sculptures : i) Lion Capital from Sarnath, ii) Chauri bearer from Didarganj, iii) Seated Buddha from Katra mound, Mathura, iv) Jain Tirthankar
- Ajanta Paintings
  Introduction, Period, Location, Number of caves, Subject matter and technique
  Practical: Skill Life and Composition

Terminal Examination I

Term II

Unit III

- Indian Temple sculpture : Introduction
  i) Descent of Ganga, ii) Trimurti, iii) Lakshmi Narayan Temple iv) Cymbal Player, Sun Temple, v) Mother and child
- Bronzes : Introduction and Method of casting
  i) Nataraj

- Artistic aspects of the Indo Islamic Architecture : Introduction
  i) Qutub Minar, Delhi, ii) Gol Gumbad, Bijapur
  Practical : Still Life and Composition

Unit Test II
Revision of Entire Syllabus

Terminal Examination II
Practical
i) Nature and object study
ii) Painting composition
iii) Portfolio Assessment
For Portfolio (30 sheets) (10 still life, 10 composition, 1 monochrome scheme, 2 Caricature, 2 Folk art, 5 designs)

Legal Studies

Term I
Unit-1 Concept of State/Nation
Organs of Govt.
Separation of Powers
Constitutional Framework of India
Unit Test I
Unit-II Legislation
Case Law
Law Reform
Activities
Visit to district court of Mohali
Debate on Ancient law practice and Contemporary law practices
Poster making competition on different Kinds of Government
Terminal Exam I : Entire Syllabus of Term I

Project Work
Term II
Unit-III Ancient Indian Law
Administration of Justice in British India Making of Indian Constitution
Unit Test II
Unit-IV Judiciary: Constitutional, Civil and Criminal Courts Possesses
Unit-V Family Justice System
Activities

Poster making competition on different Kinds of Government
Debate on National law and International law regarding Human Rights
Make a report on most popular Civil Case of the year in India by using the cuttings of News paper

Terminal Exam II: Entire Syllabus

Political Science

TERM I

PART A

Unit 1 Constitution
Unit 2 Elections And Representation
Unit 3 Local Government

PART B

Unit 4 Political Theory
Unit 5 Rights
Unit 7 Development

ACTIVITIES

1. Debate on Indian Constitution
2. Group on Parliamentary VS Presidential Form of Government
3. College on the Power of Lok Sabha and Rajya Sabha

TERM II

PART A

Unit 8 Legislature
Unit 9 Executive
Unit 10 Judiciary

PART B

Unit 11 Liberty
Unit 12 Equality
Unit 13 Justice

ACTIVITIES

1. Parliament Session
2. Ppt on the Power of Lok Sabha and Rajya Sabha
3. Debate on Changing The Role of Local Government

Computer Science

Term-I

Unit Test-I

Unit-I Computer System and Organization (Part-I)

Activity: Make a scrapbook on the topic "Number System". Explain different types of Number system

Terminal Examination-I

Syllabus of Unit Test-I

Unit-I Computer System and Organization (Part-2)

Project: Make a Report File on the topic "Different generation of Computer Languages".

Unit 2 – Computational thinking

Term-II

Unit Test-II

Unit-II Computational Thinking and programming-I

Activity: Create a menu driven program using python

Terminal Examination II

Syllabus of Unit Test II

Unit-III Society Law and Ethics

Project: Make a Report File Containing 15 different programs of Python language

Sociology

April :- (Part A)

Lesson - 1 Introducing Society : Individuals, Collectibles and Plural Prospectives.

Lesson - 2 Introducing Sociology and its Relationship to other Disciplines.

May :-

Lesson - 3 Social Groups.

Activity : Conduct a Survey about how Peer Group is becoming influential in present time.

Lesson - 4 Status and Role.

Lesson - 5 Social Stratification.

Activity : Choose any 1 social problem / issue and prepare a questionnaire on it.

Unit Test – 1
Lesson 1 to 5.

July :-
Lesson - 6 Social Control.
Activity : Prepare a Case Study on 'How different means and agencies of social control are weakening in today's modern world.'
Lesson - 7 Understanding Social Institutions : Marriage, Family and Kinship.
Activity : Prepare a project on the changing trends in Marriage, Family and Kinship institution.
Lesson - 8 Economic and Political Institutions.

August :-
Lesson - 9 Religion as a Social Institution.
Lesson - 10 Education as a Social Institution.
Lesson - 11 Culture, Values and Norms.
Activity : Prepare a project report on – Culture : Still a powerful institution or not.
Lesson - 12 Socialization.

Term – 1
Lesson 1 to 12 (Part A).

October :- (Part B)
Lesson - 4 Social Change : Causes and Consequences.

November :-
Lesson - 5 Social Order – Domination, Authority, Law, Contestation, Crime and Violence.
Lesson - 6 Rural and Urban Society.
Activity : Elaborate, how and why the changes are happening in the rural and urban society.

Unit Test – 2
Lesson - 8, 10 and 11 (Part A).
Lesson - 4 and 5 (Part B).

December :-
Lesson - 8 Introducing Western Sociologists – Karl Marx.
Lesson - 9 Emile Durkheim.
Lesson - 10 Max Weber.

January :-
Lesson - 11 Indian Sociologists – G S Ghurye, D P Mukherji, A R Desai and M N Shrinivas.
Activity : Write a life sketch of any 1 Indian or Western Sociologist (about his important works and methodology).
Lesson - 13 (Part A for Practical) Doing Sociology : Tools and Techniques.
Lesson - 14 (Part A for Practical) The Significance of field work in Sociology.

February :-
Sociology Practical and Revision.

Term – 2
Lesson 1–12 (Part A)
Lesson 4, 5, 6, 8, 9, 10, 11 (Part B).

Physical Education

TERM-I
Unit 1: Changing Trends & Career in Physical Education
Unit 2: Olympic Value Education
Unit 3: Yoga
Unit 4: Physical Education & Sports for CWSN
Unit 5: Physical Fitness, Wellness and Lifestyle

TERM-II
Unit 6: Test, Measurements & Evaluation
Unit 7: Fundamentals of Anatomy and Physiology in Sports
Unit 8: Fundamentals of Kinesiology and Biomechanics in Sports
Unit 9: Psychology and Sports
Unit 10: Training & Doping in Sports
Practical: Including 3 Practical

(LAB)*
Total: Theory 10 + Practical 3