Class Manual (2026-27)

Class-12

English

April and May

Flamingo

L-1 The Last Lesson

Activity- Speech on procrastination /Importance of one's mother tongue

L-2 The Lost Spring

Activity- Report on 'Child Labour'

L-3 Deep Water

Activity- Mind map

L-4 The Rattrap

Activity- Word Grid

Poetry

P-1 My Mother At Sixty Six

Activity- Debate - Old age homes are the only hope of the elderly people

P-3 Keeping Quiet

Activity- Article

Writing- War and Peace

Vistas

L-1 The Third Level

Activity- Compare and Contrast the lifestyles of 1890s and 2020s

L-2 The Tiger King

Activity- Mind Map

L-3 Journey to the end of the Earth

Activity- P.P.T. on Antarctica (History, Flora and Fauna)

L-4 The Enemy

Activity- Flowchart on the events highlighted in the chapter

READING- Comprehension

WRITING-Invitation & replies, Notice, Poster making, Formal letter, Article writing

Unit-I

Flamingo

L-5Indigo

Activity- 1. Movie show

2. Bio data of M.K. Gandhi

3. Route map of Gandhi's journey from Calcutta to Champaran

Poetry

P-4 A Thing of Beauty

Activity- List various bounties of nature other than those found in the poem

Term I Examination

Flamingo

L-6 Poets and Pancakes

Activity- Collect information of lead actors of 1950s and 1960s

L-7 The Interview

Activity-Worksheet, Various methods of interview and their drawbacks (Discussion)

L-8 Going Places

Activity- Group discussion - Hero Worship

P-5 A Roadside Stand

Activity- Article/Poster making - Social Inequality

P-6 Aunt Jennifer's Tigers

Activity- Project on Symbols and Imagery used in the poetry

Vistas

L-6 On the face of it

Activity-Word Puzzle

L-8 Memories of Childhood

Activity-(Group) P.P.T. on Hardships faced by Marginalized Communities

READING- Comprehensions

WRITING-Invitation and Replies, Job Application, Speech Writing, Report Writing, Formal Letter Writing

Term II Examination.

Maths

Unit-I: Relations and Functions

Relations and Functions 15 Periods

Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and on to functions.

Inverse Trigonometric Functions 15 Periods

Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions

Unit-II: Algebra

Matrices 25 Periods

Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operation on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. On-commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order.

Determinants 25 Periods

Determinant of a square matrix (upto 3x3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and solving system of linear equations in two or three using inverse of a matrix.

Unit-III: Calculus

Continuity and Differentiability 20 Periods

Continuity and differentiability, derivative of composite functions, chain rule, derivative of inverse trigonometric functions, derivative of implicit functions. Concept of exponential and log arithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives.

Applications of Derivatives 10 Periods

Applications of derivatives: rate of change of bodies, increasing /

decreasing functions, use of maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real-life situations).

Integrals 20 Periods

Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals. Basic properties of definite integrals and evaluation of definite integrals.

Applications of the Integrals 15 Periods

Applications in finding the area under simple curves, especially lines, circles/parabolas/ellipses (in standard form only), Area.

Differential Equations 15 Periods

Definition, order and degree, general and particular solutions of a differential equation. Formation of differential equation whose general solution is given. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation of the type:

Unit-IV: Vectors and Three-Dimensional Geometry

Vectors 15 Periods

Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors, scalar triple product of vectors.

Three-Dimensional Geometry 15 Periods

Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, shortest distance between two lines. Cartesian and vector equation of a plane. Angle between (i) two lines, (ii) two planes, (iii) a line and a plane.

Unit-V: Linear Programming

1. Linear Programming 20 Periods

Introduction, related terminology such as constraints, objective function, optimization, different types of linear programming (L.P.) problems, mathematical formulation of L.P. problems, graphical method of solution for problems in two variables.

Unit-VI: Probability

1. Probability 30 Periods

Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem, Random variable and its probability distribution, mean.

Biology

UNIT TEST

Chapter 1 Sexual Reproduction in flowering plants
Chapter 2 Human Reproduction
Chapter 3 Reproductive Health
Chapter 4 Evolution

Term-I

Chapter 4 Principles of inheritance and variation
Chapter 5 Molecular basis of inheritance
Chapter 7 Human health and Diseases
Chapter 8 Microbes in human welfare
Chapter 13 Ecosystem

PRACTICAL – FULL SYLLABUS

Term-II

Chapter 9 Biotechnology-Principles and Processes
Chapter 10 Biotechnology & Its Application
Chapter 11 Organisms & Population
Chapter 12 Biodiversity & Conservation
Pre-Board Exam - I
Pre-Board Exam–II

FINAL PRACTICAL

Physics

Term-I

April

Chapter 1 Electric Charges and Fields:
Chapter 2 Electrostatic Potential and Capacitance
Practicals: i) To calculate resistance per unit length of an unknown resistance by making a graph between V and I
ii) To find unknown resistance using meter bridge

May

Chapter 3 Current Electricity
Chapter 4 Moving Charges & Magnetism
Practicals: To find unknown resistance using meter bridge in series
Unit-1 Exam

July

Chapter 5 Magnetism and matter
Chapter 6 Electromagnetic Induction
Practical: To determine the resistance and figure of merit of Galva meter by half deflection method

August

Chapter 7 Alternating Current
Chapter 8 Electromagnetic Waves
Activities: Three activities of Section A

September **Revision 1st Terminal Exam**

Chapter 9 Ray optics and optical instruments
Chapter 10 Wave Optics
Practicals: i) To find refractive index and angle of minimum deviation in case of glass prism.
ii) To find refractive index of a glass slab using travelling microscope
Practical: i) To find the focal length of concave mirror using u, v method

November
Chapter 12 Atoms
Chapter 13 Nuclei

December
Chapter 14 Semi conductor Electronics
Practical: i) Characteristics of p-njunction
Activities: Three activities of Section B Revision
II Terminal Exam (December)

January
Pre Board Exam

Chemistry

April-May
Unit-II Solution
Activity: To prepare M/20 Mohr' salt solution
Unit-III Electro Chemistry
Worksheet
Unit-IV Chemical Kinetics
Activity: To study the effect of temperature on the rate of reaction between sodium sulphite and dilute hydrochloric acid
Practical Work: a) To prepare double salt of Potash Alum and Mohr's salt To prepare solution of Mohr's salt and KMnO4 solution. Volumetric analysis involving KMnO4Vs Oxalic Acid and KMnO4Vs Mohr's salt
Unit Test I

July
Unit-VIII D and f-block elements Worksheet
Unit-IX Co-ordination compounds
Activity: To study applications of coordination chemistry in qualitative analysis
Practical Work: 1) To detect functional group in a given organic compound Aspirin in the lab.
Unit Test II

August

Unit-X Haloarenes and halo alkanes

Activity: To study types of bonding in halo Alkanes and sodium chloride

Term Exam I- Entire Syllabus upto August

October

Unit-XI Alcohols, Phenols and Ethers

Activity: To distinguish between primary, secondary and tertiary alcohol

Unit-XII Aldehydes, Ketones and Carboxylic acid

Activity: To distinguish between aldehydes and ketones

Unit-XIII Organic compounds containing Nitrogen

Activity: Tests to show the presence of amino functional group

November

Unit-XIV Biomolecules

Activity: Chemical test to detect presence of starch, protein and carbohydrates in given substance

December

IInd Term Exams

January

Revision

Business Studies

Term-1

Ch-1 Nature and Significance of Management

Ch-2 Principles of Management

Ch-3 Business Environment

Ch-4 Planning

Ch-5 Organising

Ch-6 Staffing

Ch-7 Directing

Ch-8 Controlling

Project Work

Unit Test-I

July

Ch-1 Nature and Significance of Management

Ch-4 Planning

Ch-3 Business Environment

Ch-2 Principles of Management

Sept. 1st Terminal Examination:

Entire Syllabus covered in 1st Term

Term-II

Ch-9 Business Finance

Ch-10 Financial Markets

Ch-11 Marketing Management

Ch-12 Consumer Protection

December: IInd Terminal Exam:

Entire Syllabus & Project Work

January: Pre board Exam

Fieldtrip – Visit to industrial unit in Ludhiana.

Accountancy

Term-1

Part-B

Ch-I Analysis of Financial Statements

Ch-II Ratio Analysis

Part-A

Accounting for Partnership Firms

Ch-1 Accounting for Partnership Firms–Fundamentals

Ch-2 Admission

Ch-3 Retirement to Partnership Firms.

Ch-4 Reconstitution and Dissolution of firms

July

Unit Test-l

Ch-1 Analysis of Financial Statements

Ch-2 Ratio Analysis

Ch-4 Accounting for Partnership Firms (Fundamentals only)

Term-II
Company Accounts
Ch-1 Share Capital
Ch-2 Debentures - (Redemption of debentures deleted)
Ch-3 Cash Flow Statement
Project Work

December
Summative Assessment-II
Entire Syllabus & Project Work

Economics
Syllabus Term-I

Term-I
(Macro Economics) PART-A
Unit 1 Measurement of National Income
Unit 2 Determination of Income and Employment
Unit 3 Money and Banking
Unit 4 Government Budget and the Economy
Unit 5 Balance of Payments

Term-II
(Indian Economic Development) PART-B
Unit 6 Development Experience (1947-90) and Economic Reforms since 1991
Unit 7 Current Challenges facing Indian Economy
Unit 8 Development Experience of India-A Comparison with Neighbours

December
IInd Terminal Examination
Entire Syllabus (Macro and Indian Economic Development)
December: Summative Assessment-II

January
Pre-Board (Entire Syllabus)
Project work– 20 marks (topics will be allotted by teacher)
Field trip– visit to industrial unit in Ludhiana.

Psychology

Term 1

Ch 1- Variations in Psychological Attributes
Ch 2- Self and Personality
Ch 3- Meeting life challenges
Ch 4- Psychological Disorders
Practicals- VIR, MPI, SCAT

Term 2

Ch 5- Therapeutic Approaches
Ch 6- Attitude and Social Cognition
Ch 7- Social Influence and Group processes
Practicals- AISS, RPM
+ Case study file

Home Science

Term I

Ch-1 Work, livelihood and career
Ch-2 Clinical Nutrition and Dietetics
Ch-3 Public Nutrition and Health
Ch-4 Food Processing and Technology
Ch-5 Food Quality and food safety
Ch-6 Early childhood Care and Education
Ch-7 Management of Support Services, Institution and Programmes for children, Youth and Elder
Ch-11 Design for fabric and Apparel
Ch-12 Fashion Design and Merchandising
Ch-10 Care and Maintenance of fabric in Institution
Ch-11 Hospitality Management

Term II

Ch-12 Consumer Education and Protection
Ch-21 Development Communication and Journalism
Ch-8 Design for Fabric and Apparels
Ch-9 Fashion Design and Merchandising

Painting

Term I

Unit I

The Rajasthani School

i) Origin and Development

ii) Main features

iii) Sub schools- Mewar, Bundi, Jodhpur, Bikaner, Kishangarh and Jaipur

iv) Paintings: a) Maru Ragini, b) Chaugan Players, c) Krishna on swing, d) Radha Bani Thani, e) Bharat meets Rama at Chitrakut

The Pahari School

i) Origin and Development

ii) Main features

iii) Sub schools- Basohli, Guler, Kangra, Chamba and Garhwal

iv) Paintings: a) Krishna With Gopis, b) Nand, Yashoda, Krishna going to Vrindavan with kinsmen

Practical: Still Life and Composition

Unit Test I

Unit II

The Mughal School

i) Origin and Development

ii) Main features

iii) Paintings: a) Krishna lifting Mount Goverdhan, b) Falcon on a bird rest c) Kabir and Raidas, d) Marriage procession of Dara Shikoh

The Deccan School

i) Origin and Development

ii) Main features of the Deccan school

iii) Paintings: a) Hazrat Nizamuddin Auliya and Amir Khusro

b) Chand Bibi Playing Polo

Unit III

The Bengal School of Painting

i) National Flag of India and Symbolic significance of its form and colours

ii) Introduction, Origin and development, Main features of the

Bengal School
iii) Paintings: a) Journey's End, b) Shiv and Sati, c) Radhika, d) Meghdoot (iv) Contribution of Indian artists in the struggle for National Freedom Movement
Practical: Still Life and Composition
Term I
The Modern Trends in Indian Art
i) Paintings: a) Rama Vanquishing the Pride of the Ocean, b) Mother and Child, c) Haldi Grinders, d) Mother Teresa
ii) Graphic Prints: a) Children, b) Devi, c) Of Walls, d) Man, Woman and Tree
iii) Sculptures: a) Triumph of Labour, b) Santhal Family, c) Cries Unheard, d) Ganesha
Practical: Still Life and Composition

Term II
Revision of Entire Syllabus

January
Pre Board 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 imagination/abstract)

Legal Studies

Term I
Unit-1 Judiciary
Unit-3 Arbitration, Tribunal Adjudication and Alternate Dispute Resolution
Unit Test-1
Unit-2 Topics of Law (General Laws & Business Law)
Activities: Visit to district court of Mohali
Interview of any Bar Council Member Or Experienced Advocate
Poster making competition on Fundamental Rights

Terminal Exam I
Entire Syllabus of Term I
Project Work

Term II
Unit-4 Human Rights in India
Unit-5 Legal Profession in India
Unit-6 Legal Services
Unit-7 International Context
Activities: Debate can be an excellent training ground for future lawyers. Debate on different topics of Family Court.
Marriage Divorce Adoption
Make a report on most popular Criminal Case of the year in India by using the cuttings of Newspaper
Terminal Exam II
Entire Syllabus

Political Science

Term I
Part A
Unit 1 Contemporary South Asia
Unit 2 The End of Bipolarity
Unit 3 United Nation and It's Organizations Contemporary Centers of Power
Part B
Unit 4 Challenge of Nation Building
Unit 5 Planning and Development Era of One Party Dominance
Unit 6 India's Foreign Policy Challenges to be restoration of Congress System
Activities: Map Activities To Understand World Politics In 1945 Collage On Us Hegemony Division Of Class Into Two Groups And Discussion On USA And USSR
Terminal Exam I
Project Work

Term Ii
Part A

Unit 7 New Centres of Power
Unit 8 South Asia and Contemporary World
Unit 9 Globalization

Part B

Unit 10 Parties and Party System In India
Unit 11 Democratic Resurgence
Unit 12 India Politics Trends and Development
Activities: Parliament Session Debate On The Positive And Negative Impact Of Globalization Debate On The Necessity Of Emergency 1975 Collage On The Role Of Coalition Of Government In India After 1989
Terminal Exam II

Computer Science

Term-I

Unit Test-I

Unit-I Computational Thinking and programming-2 (Part 1)
Activity: Collect information on real-life problem for the project

Unit-II Computer Networks

Terminal Examination I
Syllabus of Test-I
(Unit Test-I)

Unit-III Database Management

Term-II

Unit Test-II

Unit-I Computational Thinking & Programming-II

Unit-II Computer Networks

Sociology

Term I

PART A

Lesson-2: Demographic structure of the Indian Society
Lesson-3: Social Institution : continuity and change
Lesson-4: Tribal Community
Lesson-5: Family & Kinship
Lesson-7: Pattern of social inequality and exclusion : Scheduled

Castes, Scheduled Tribes and OBC
Lesson-8: Pattern of social inequality and exclusion : women and differently abled

PART B
Lesson-1: Structural changes
Lesson-2: Cultural changes
Practical Work- Project files
Term II
PART - B
Lesson-4: Change and Development in Rural Society
Lesson-5: Change and Development in Industrial Society
Lesson-8: Social Movements

PART A
Lesson-10: The challenges of Cultural Diversity

Physical Education

TERM-I

Unit-1: Management of Sporting Events
Unit-2: Children and Women in Sports
Unit-3: Yoga as Preventive measure for Lifestyle Disease
Unit-4: Physical Education & Sports for (CWSN)
Unit-5: Sports & Nutrition
Unit-6: Test and Measurement in Sports

TERM-II

Unit-7: Physiology & injuries in Sport
Unit-8: Biomechanics and Sports
Unit-9: Psychology and Sports
Unit-10: Training in Sports
Practical: Including 3 Practical

(LAB)*
Total: Theory 10 + Practical 3