

Shivalik School

CLASS
XI Science

Syllabus 2025-26

SUBJECT: ENGLISH

PT1 (APRIL & MAY)

Hornbill- Ch-1 The Portrait of a lady

Poetry-P-1 A photograph

Snapshots-Ch-1 The summer of the beautiful white horse

Writing skills-Advertisement

Grammar-Tenses

Reading-Unseen comprehension

Activity: 1 File (May) and application to class teacher/principal(Sick leave, To attend any function, Subject change, Fee concession, Related with any sort of indiscipline etc.) (Sick leave, To attend any function, Subject change, Fee concession, Related with any sort of indiscipline etc.)

PT2 (JULY & AUGUST)

Hornbill- Ch-2 We're not afraid to die, 3 Discovering Tut. Poetry- P-2 The Laburnum top,

Snapshots- Ch-2 The Address, Writing skills-Poster

Grammar-Gap filling (Tenses and clauses), **Reading-Unseen comprehension**

Activity 2: listening and speaking practice (Sick leave, To attend any function, Subject change, Fee concession, Related with any sort of indiscipline etc.)

HALF YEARLY (SEPTEMBER)

Reading skills : 1 unseen passage : factual , 2 unseen passage : case based

Writing skills : 1.Classified Advertisements, 2. Poster making, 3. Speech

Grammar : 1.Gap filling exercise by clauses and tenses , 2.Re-ordering of sentences

Hornbill book: 1. The portrait of a lady(prose), 2. A photograph (poem) , 3. We're not afraid to die.. (prose) 5. The laburnum Top (poem) ,6. The voice of the rain (poem),7. Discovering Tut (prose)

Snapshot book: 1. Summer of the beautiful white horse (prose), 2. The Address (prose), 3. Mother's Day

Activity: 3 ASL (listening skills practice) and application to class teacher/ principal (Sick leave, To attend any function, Subject change, Fee concession, Related with any sort of indiscipline etc.)

PT3 (OCT TO DECEMBER)

Hornbill- Ch-7 The Adventure , **Poetry-** P-4 Childhood

Snapshots- Ch-6 Birth, **Writing skills-** Debate

Grammar- Transformation of sentences (Active and passive voice)

Reading- Note making and summarisation

Activity: 4 Assessment of speaking skills and application to class teacher/ principal

ANNUAL EXAM. (JANUARY TO MARCH)

Hornbill: Poem- Father to Son, Ch- Silk Road

Snapshot: Tale of the Melon City

Activity: 5 Application to class teacher/ principal

Revision of Full syllabus

SUBJECT: PHYSICS

Book referred: N.C.E.R.T. Physics Vol-I and Vol-II

PT1 (APRIL & MAY)

Unit-I Physical World and Measurement, Unit-II Kinematics

Experiments: 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.

Activitiy:1 To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.

PT2 (JULY & AUGUST)

Unit-III Laws of Motion, Unit-IV Work, Energy and Power, **Experiments:** 2. To measure diameter of a given wire and thickness of a given sheet using screw gauge. 3. To determine radius of curvature of a given spherical surface by a spherometer

Activity: 2 To study the variation in range of a projectile with angle of projection.

HALF YEARLY (SEPTEMBER)

Unit-I ,Unit-II, Unit-III ,Unit-IV Unit-V Motion of System of Particles and Rigid Body

Experiments: 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. 2. To measure diameter of a given wire and thickness of a given sheet using screw gauge. 3. To determine radius of curvature of a given spherical surface by a spherometer. 4. Using a simple pendulum, plot its L-T² graph and use it to find the effective length of second's pendulum.

Activities: 3 To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm. 2. To study the variation in range of a projectile with angle of projection.

3. To determine mass of a given body using a metre scale by principle of moments.

PT3 (OCT TO DECEMBER)

Unit-VI Gravitation, Unit-VII Properties of Bulk Matter

Experiments: 5.To find the force constant of a helical spring by plotting a graph between load and extension. 6. To study the relation between frequency and length of a given wire under constant tension using sonometer. 7. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions. 8. To study the relation between the length of a given wire and tension for constant frequency using sonometer.

Activity: 4.To observe the decrease in pressure with increase in velocity of a fluid. 5. To study the effect of detergent on surface tension of water by observing capillary rise. 6. To study the factors affecting the rate of loss of heat of a liquid.

ANNUAL EXAM. (JANUARY TO MARCH)

Full syllabus (Unit-1 to Unit-10)

SUBJECT: CHEMISTRY (043)

Book referred: N.C.E.R.T. Chemistry Vol-I and Vol-II

PT1 (APRIL & MAY)

Ch-1 Some Basic Concepts of Chemistry, Ch- 2 Structure of Atom.

Practical: Experiments based on pH.

Activity: 1 Neutralisation Process of Acids and Bases (Experimental)

PT2 (JULY & AUGUST)

Ch- 3 Classification Of Elements, Ch- 4 Chemical Bonding, # The Gaseous State

Practical: Qualitative analysis.

Activity: 2 Drafting of Periodic table and it's trend.

Drawing of structure of Molecules on basis of VSEPR Theory

HALF YEARLY EXAM (SEPTEMBER)

Ch- 1 Some Basic Concepts of Chemistry, Ch-2 Structure of Atom, Ch-3 Classification of Elements, Ch- 4 Chemical Bonding,

Ch- 5 Thermodynamics, Ch -7 Redox Reactions,

Practical: Qualitative analysis.

PT3 (OCTOBER TO DECEMBER)

Ch- 6 Equilibrium, Ch- 8 Organic Chemistry - Some Basic Principles And Techniques. # s & p Block Elements

Practical: Quantitative analysis.

Activity: 3 Preparation of Project file on Given topics

ANNUAL EXAM. (JANUARY TO MARCH)

Ch- 9 HydroCarbons. Full Syllabus

Practical: All experiments (1- PH based, 2- Qualitative analysis, 3- Quantitative analysis)

Activity: 4 IUPAC nomenclature.

Name Reactions involved in hydrocarbon.

SUBJECT: STANDARD MATHEMATICS**PT1 (APRIL & MAY)**

Chapter-1 sets, 1-Introduction., 2-Types of Sets 3-Union and intersection of sets. , 4-Venn diagrams Properties of sets. **Chapter-2 Relation and Functions**- 1-Ordered pairs of sets, 2- Cartesian products., 3- Relations, 4-Domain, Co-Domains and Range., 5- Functions , Types and Properties of functions.

Activity1: To find number of subsets of a given set and verify that if a set has n elements then total number of subsets is 2^n .

Activity2: To plot the graphs of $\sin \sin x$, $\sin \sin 2x$, $2 \sin \sin x$ and $\sin \sin \frac{x}{2}$ using the same coordinate axis.

PT2 (JULY & AUGUST)

Chapter-3 Trigonometric Functions- 1-Introduction Measurement of angles in radians and degrees. Relation between radius, length of an arcs and angle at the center of a circle., 2- Domain and Range of Trigonometric Functions., 3- Identities of trigonometric Functions. Trigonometric Equations.

Chapter-4 Complex Numbers and Quadratic Equations, 1- 1.Introduction, 2- Modulus and conjugate of a complex number 3- Quadratic Equations., 4-Algebraic properties of Complex numbers., Argand Plane.

Activity3: To verify that the graph of given inequality by $5x + 4y - 40 < 0$ of the form $ax + by + c < 0$ $a, b, c > 0$

Activity4: To construct a Pascal triangle and to write binomial expansion for a given positive integral

Activity5: to demonstrate that the arithmetic mean of two different positive numbers is always greater than the arithmetic mean.

HALF YEARLY EXAM (SEPTEMBER)

Chapters, 1, 2, 3, 4

Chapter-5 Linear Inequities: 1. Algebraic Solutions of linear Inequalities in one variable and their solution on number line.

Chapter-6 Permutations and Combinations: 1- Introduction , 2- Fundamental Principle of counting, 3- Permutations Combinations.

Chapter-7 Binomial Theorem: 1- Introduction. 2- Binomial Theorem for positive Integral Indices. General and Middle terms.

Activity6: Construct different type of Conic Sections.

Activity7: To verify the equation of line passing through point of intersection of two lines $a_1x + b_1y + c_1 = 0$

and $a_2x+b_2y+c_2=0$ is of the form of $a_1x + b_1y + c_1 + \mu(a_2x + b_2y + c_2 = 0)$

Activity8: To write the Sample space when coin is toss one time, two times, three times and four times.

Activity9: To construct different type of conic sections.

Activity10: To explain the concept of octants by three mutually perpendicular planes in space.

PT3 (OCTOBER TO DECEMBER)

Chapter-8 Sequence and Series: 1- Introduction.,2- Sequences . , 3- Series., 4-Arithmetic Progression,5- Geometric Progression, 6- Relation between A.M. and G.M. Sum of n terms special Series.

Chapter-9 Straight Lines.: 1 -Introduction., 2-Slope of a line., 3- Various Forms of the Equation of a Line., 4- General Equation of a Line. Distance of a Point from a Line.

ANNUAL EXAM. (JANUARY TO MARCH)

CHAPTERS :1,2,3,4,5,6,7,8,9

Chapter-10. Conic Sections.: 1- Introduction., 2- Section of a cone., 3- Circle., 4- Parabola., 5- Ellipse. Hyperbola.

Chapter-11. Introduction of Three Dimensional Geometry.:

1- Introduction., 2- Coordinate Axis and Coordinate Planes in Three Dimensional Space., 3- Coordinates of a point in a plane., 4- Section Formula.

Chapter-12 Limits and Derivatives.: 1-Introduction., 2- Intuitive Idea of Derivatives.,3-Limits., 4- Limits of Trigonometric Functions., 5- Derivatives.

Chapter-13. Statistics.: 1-Introduction., 2- Measures of Dispersion., 3- Range., 4- Mean Deviation., Variance and Standard Deviations. **Chapter-14. Probability.:** 1- Introduction., 2-Random Experiments., 3-Events. Axiomatic Approach to Probability.

SUBJECT: BIOLOGY**PT1 (APRIL & MAY)**

Ch.-1 The living world, Ch.- 2 Biological classification, Ch.-3 Plant kingdom

SEA:1 Imp. Ques. file Flower description, * Models of Plants

PT2 (JULY & AUGUST)

Ch.-5 Morphology of flowering plants, Ch.-6 Anatomy of flowering plants, Ch.-7 Structural organisation in animals

SEA:2 Types of modification root, stem & leaves, * Models of animals

HALF YEARLY EXAM (SEPTEMBER)

Ch.-1,2,3,4,5,6,7 & Ch.-8 Cell the unit of life, Ch.-9 Biomolecules, Ch.-10 Cell cycle and cell division

SEA:3 Experiment, * Slide formation , * Chlorophyll separation, * Slides of mitosis

PT3 (OCTOBER TO DECEMBER)

Ch.-12 Photosynthesis in higher plants,Ch.-13 Plant growth and development

SEA:4 Distribution of stomata on lower & upper surface of leaves.

ANNUAL EXAM. (JANUARY TO MARCH)

Complete Syllabus, Unit V

*Experiments, *Models, *Slide formation, *Monocot & dicot , *Stomata, * R.Q.,*Chlorophyll

* Modification of plants

SUBJECT: PHYSICAL EDUCATION

PT1 (APRIL & MAY)

Unit-I Changing trends and career in physical education, **Unit-II** Olympism

Activity-1 AAPHER Fitness test.

PT2 (JULY & AUGUST)

Unit-III Yoga., **Unit-IV** Physical Education and Sports For CWSN,

HALF YEARLY (SEPTEMBER)

Unit-I Changing trends and career in physical education., **Unit-II** Olympism **Unit-III** Yoga **Unit -IV** Physical Education and Sports ForCWSN. , **Unit-V** Physical Fitness,wellness and lifestyle

Activity-2 Major games

PT3 (OCT TO DECEMBER)

Unit-VI Test, measurement & evaluation., **Unit VII-** Fundamentals of Anatomy and Physiology in sports

ANNUAL EXAM. (JANUARY TO MARCH)

Full syllabus (Unit-1 to Unit-10),**Unit-VIII** Fundamentals of Kinesiology and Biomechanics in sports **Unit-IX** Psychology And Sports

Unit-X Training & Doping In Sports, (Complete Syllabus)

Activity-3 Body composition –BMI, -WHR, -Skinfold.

SUBJECT: COMPUTER SCIENCE

PT1 (APRIL & MAY)

Ch.- 1: Computer System Overview, Ch.- 2: Data Representation

SEA:1 Latest tech. used in mobile in life.

PT2 (JULY & AUGUST)

Ch.- 3: Boolean Logic, Ch.- 4: Introduction to Problem Solving, Ch.- 5 : Getting Started With Python

HALF YEARLY EXAM (SEPTEMBER)

PT1+PT2, Ch.- 6: Python Fundamentals, Ch.- 7: Data Handling, Ch. –8: Introduction to Python Modules Ch.- 9: Flow of Control

SEA: 2 Program using python

PT3 (OCTOBER TO DECEMBER)

Ch.- 10: String Manipulation, Ch.-11: List Manipulation

ANNUAL EXAM. (JANUARY TO MARCH)

PT1+PT2+PT3, Ch.- 12: Tuples, Ch.- 13: Dictionaries, Ch.- 14: Cyber Safety, Ch.- 15: Society, Law, and Ethics

SEA:3 Presentation on Cyber Safety.

SUBJECT: I.T.

PT1 (APRIL & MAY)

PART-A: UNIT-I COMMUNICATION SKILLS, **UNIT-II** SELF MANAGEMENT SKILLS, **UNIT-III** ICT SKILLS

SEA:1 Presentation of self-management

PT2 (JULY & AUGUST)

PART A: UNIT-IV ENTREPRENEURIAL SKILLS, **UNIT-V** GREEN SKILLS, **PART B: UNIT-I** COMPUTER ORGANIZATION

HALF YEARLY (SEPTEMBER)

PT1+PT2, **PART B: UNIT-II** NETWORKING AND INTERNET, **UNIT-III** OFFICE AUTOMATION TOOLS

SEA:2 Report card generation using calc.

PT3 (OCT TO DECEMBER)**PART B: UNIT-IV RDBMS****ANNUAL EXAM. (JANUARY TO MARCH)****PT1+PT2+HY+PT3, UNIT-V FUNDAMENTALS OF JAVA****SEA:3 Quiz program using Java****SUBJECT: FINE ARTS****PT1 (APRIL & MAY)**

Ch - 1 Prehistoric rock paintings, Ch – 2 Art of Indus Valley civilization

SEA:1 Still life collage**PT2 (JULY & AUGUST)**

Ch 3- Arts of the Mauryan period, Ch 4- Post Mauryan trends in Indian art

HALF YEARLY EXAM (SEPTEMBER)

Ch-5 Later Mural Traditions + PT 1 + PT 2

SEA:2 Temple sketches.**PT3 (OCTOBER TO DECEMBER)**

Ch 6 – Temple Architecture and sculpture, Ch 7 – Indian Bronze sculpture ,

ANNUAL EXAM. (JANUARY TO MARCH)

Ch 8 – Some Aspects of Indo – Islamic Architecture

Complete Syllabus

SEA:3 Portrait