

Syllabus for 2015-2016

Class- XI

English

April	Prose	: The Portrait of a Lady
	Poerty	: A Photograph
	Supplemetary	: The Summer of Beautiful white horse.
May	Writing	: Notes making
	Prose	: We're not afraid to Die
	Poerty	: The voice of the rain
	Supplemetary	: The address
June --	Writing	: Advertisement
	July FA-2	Prose : Discovering Tut
		Poerty : Childhood
		Supplemetary : Ranga's Marriage
August	Writing	: Notice Poster
	Prose	: The Ailing planet
	Poerty	: Father to son
	Supplemetary	: Albert Einstein at school
September	Writing	: Report
	Prose	: The Browning Version
	Supplemetary	: Mother's Day
	Writing	: Letters
October	Supplemetary	: Birth
	Writing	: Application for Job
	Grammar	: Determines, Modals
		Novel for self reading
November	Supplemetary	: The tale of melon City
	Writing	: Speech, article
	Grammar	: Tenses

December Writing : Narrative
Grammar : Change of voice, clause.

Maths

April to May Ch-1 : Sets
Ch -3 : Trigonometric Functions

July cCh-4 : Principle of mathematical Induction
Ch -5 : Complex Numbers and quadratic Equations

August Ch -8 : Binomial theorem
Ch -7 : Permutations and combinations
Ch -2 : Relations and Functions

September Revision with sample papers
SA - I

October Ch - 9 : Sequences and Series
Ch - 10 : Straight Lines
Ch - 11 : Conic Section
Ch - 5 : Complex Number and quadratic Equations.

November Ch - 12 : Introduction to three dimensions
Geometry
Ch - 15 : Statistics
Ch - 16 : Probability

December Ch - 6 : Linear Inequalities
Ch -13 : Limits and Derivatives
Ch - 14 : Mathematical Reasoning

Physics

April & May	: Physical world & Measurement, Kinematics
June	: Law's of Motion
August	: Work, energy, Power & motion of system of particles & Rigid body.
September	: Gravitation & Rev Work
October	: Properties of Bulk Matter & Thermodynamics
November	: Behaviour of perfect Gas & Kinetic theory of gases.
December	: Oscillations & Waves.

Physics Practical

1. To measure diameter of a given wire using a screw gauge.
2. To measure the thickness of a given wire using a screw gauge.
3. To measure thickness of a given rectangular sheet using a vernier callipers.
4. To measure the diameter of a given diameter of a spherical body with the help of vernier callipers.
5. To study the conservation of energy of a ball rolling down on inclined plane (using a double inclined track)
6. To measure the thickness of a given sheet using a screw gauge.
7. Plot a graph between l and T in case of S.H.M. of a simple pendulum & find its effective length
8. To find the force constant of a helical spring from the load extension graph.

Project - Individual project.

Activities :-

1. To study the factors affecting the rate of loss of heat of a liquid.
2. To note the change in level of liquid in a container on heating and interpret the observation.
3. To observe the change the state and to plot a cooling curve for ice. hence to find the melting point of water.
4. To observe the change of state and to plot a cooling curve for molten wax hence to find the melting point of wax.
5. The study rate of transfer of heat.
6. One Practical based on vector.(Parallelogram method)

Chemistry

April	Ch -1	: Some Basic concept of chemistry
	Ch -2	: Structure of Atom
May	Ch -3	: Classification of Elements and Periodicity in Properties
	Ch -5	: States of Matter
June -		
July	Ch -6	: Thermodynamics
	Ch - 7	: Equilibrium
August	Ch -8	: Redox Reaction
	Ch - 9	: Hydrogen
September	Ch -10	: S- Block Elements
	Ch - 11	: P- Block Elements

October	Ch -12	: Organic Chemistry (Some Basic Principles and Techniques)
	Ch - 4	: Chemical Bonding & Molecular structure
November	Ch -13	: Hydrocarbons
	Ch -14	: Environmental Chemistry

Chemistry Practical

Exp - 1 To cut a glass tube and round off its edges.

Exp - 2 To draw a jet from a glass tube and prepare a capillary

Exp- 3 To determine the melting point of the given solid substance.

Exp- 4 To determine the boiling point of the given liquid.

Exp- 5 To purify impure sample of benzoic acid by the process of crystallisation.

Exp-6 Determine and compare the PH values of hydrochloric acid and acetic acid soln having same concentration.

Exp-7 Determine the PH values of some vegetables juice and fruit juices using (i) PH Paper

(ii) Universal Indicator Soln

Exp-8 To determine the change in PH values of acetic acid on addition of sodium acetate solution.

Exp- 9 To determine the change in Ammonium hydroxide (NH_4OH) Soln on addition of ammonium chloride soln.

Exp-10 Titration Practical (Change in PH of 0.1 M HCl with 0.1 M NaOH Soln with the help of Universal indicator soln.

Exp.- 11 Determine the percentage composition of mixture of Potassium hydroxide and Potassium chloride 9.0 gm which are

dissolved per litre of the soln.

Exp.12 To analyse the given salt for acid and basics

Project

Project - I Study of methods of purification of water.

Project - II Analysis of land water

Project - III Compare the foaming capacities of different sample of soaps.

Project - IV Compare the tannic acid content of various sample of tea.

Project - V To detect the presence of adulterants in fat, oil and butter.

Biology

April

The living world

Biological Classification

May

Plant Kingdom

Animal Kingdom

July

Morphology of flowering plants.

Anatomy of flowering plants

Structural organisation in Animals

August

Cell : The unit of life.

Biomolecules

Cell cycle and cell division.

September

Transport in plants

Mineral Nutrition

Photosyntheses in higher plants

Respiration in plants

October

Plant growth and development

Human : Digestion and absorption

October

Breathing and exchange of gases
Body fluids and circulation
Excretory product and their
elimination
Locomotion & movement
Neural control and coordination
Chemical coordination and
integration

A. List of Experiments

1. Study and describe three locally available common flowering plants, one from each of the families Solanaceae, Fabaceae and Liliaceae including dissection and display of floral whorls, anther and ovary to show number of chambers, Types of root (Tap and adventitious) stem (herbaceous and woody); leaf (arrangement, shape, venation, simple and compound).
2. Preparation and study of T.S. of dicot and monocot roots and stems (primary)
3. Study of osmosis by potato osmometer.
4. Study of plasmolysis in epidermal peels (e.g. Rhoeo leaves)
5. Study of distribution of stomata in the upper and lower surface of leaves.
6. Comparative study of the rates of transpiration in the upper and lower surface of leaves.
7. Test for presence of sugar, starch, proteins and fats. To detect these in suitable plant and animal materials.

8. Separation of plant pigments through paper chromatography.
 9. Study of the rate of respiration in flower buds/leaf tissue and germinating seeds.
 10. Test for presence of urea in urine.
 11. Detect the presence of sugar in urine.
 12. Detect the presence of albumin in urine.
 13. Detect the presence of bile salts in urine.
- B. Study / Observation of the following (spotting)
1. Study of the parts of a compound microscope.
 2. Study of specimens/ slides/ models and identification with reasons Bacteria, Oscillatoria, Spirogyra, Rhizopus, mushrooms, yeasts, liverwort, moss, fern, pine, one monocotyledonous plant and one dicotyledonous plant and one lichen.
 3. Study of virtual specimens/ slide/ models and identification with reasons- Amoeba, Hydra, liverfluke, Ascaris, leech, earthworm, prawn, silkworm, honeybee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.
 4. Study of tissues and diversity in shapes and sizes of plants and animal cells (palisade cells, guard cells, parenchyma, collenchyma, sclerenchyma, xylem, phloem, squamous epithelium, muscle fibres and mammalian blood smear) through temporary /permanent slides.
 5. Study of mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.
 6. Study of different types of inflorescence (cymose and

racemose

8. Study of imbibition in seeds/ raisins.
9. Observation and comments on the experimental set up for showing.
 - a) Anaerobic respiration
 - b) Phototropism
 - c) Effect of apical bud removal
 - d) Suction due to transpiration
10. Study of human skeleton and different types of joints with the help of virtual images/ models only.
11. Study of external morphology of cockroach through virtual images / Models

Prescribed Books :

1. Biology Part I, Class- XI, Published by NCERT
2. Biology Part II, Class- XI, Published by NCERT

Computer

April - May

Ch -1 Computer Overview
Ch- 2 Working with operating system

July

Ch - 3 Data Representation
Ch -4 Microprocessor Basic - Input, Output and Memory Devices

August

Ch - 5 General OOP concepts
Ch- 6 Getting started with C++
Ch - 7 Data Handling
(Project Work)

September	Ch - 8 Operators & Expression in C++ Ch - 9 C++ as per Latest C++ 11 Standard
October	Ch - 10 Flow of Control Ch - 11 Functions Ch -12 Structured Data Type :- Array
November	Ch - 13 Structures Ch - 14 Programming Methodology
December	Revision

Physical Education

April	Physical Fitness, Wellness and life style Changing Trends and Career in Physical Education
May	Olympic Movement
July	Yoga Dopping
August	Management of injuries/ Test and Measurement in sports
September	Fundamental of anatomy and physiology Biomechanics and sports
October	Psychology and sports. Traing in sports

Practical

- | | | |
|-----|---|----------|
| 01. | Physical Fitness - AAHPER | 05 marks |
| 02. | Athletics - Any two events - Sprints and Jumps | 05 marks |
| 03. | Health and Fitness Activities : Medicine Ball/Three Tube/
Pilates/Rope | 05 |
| 04. | Skill of any one individual game of choice from the given list | 05 |
| 05. | Viva | 05 |
| 06. | Record File | 05 |

The events being opted must be other than from those administered under physical fitness test.

1. Write benefits of Medicine Ball, Thera tube and Pilates.
2. Measure BMI of ten members from family or neighbourhood and show graphical representation of data.
3. Draw a neat diagram of standard track with all its specifications. Mention all the track and field events.
5. Mention the latest records at Indian, World and Olympic level. Badminton, Judo, Swimming, Table Tennis, Tackwondo and Tennis.

Hindi

अप्रैल-मई

आरोह गद्य खण्ड

1. प्रेमचन्द्र
2. कृष्ण सोबती
3. सत्यजीत राय

काव्यखंड

1. कबीर

2. मीराबाई
3. रामनरेश त्रिपाठी

विज्ञान :-

1. भारतीय गायिकाओं में बेजोड़ लता मंगेशकर
अभिव्यक्ति एवं माध्यम
पत्रकारिता के विविध आयाम, डायरी लेखन,
कार्यालयी पत्र, बायोडाटा
आरोह गद्य खण्ड

जुलाई -अगस्त

1. बालमुकुंद गुप्त
2. शेखर जोशी
3. कृष्ण नाथ

काव्यखंड

4. सुमित्रा नंदन पंत
5. भवानी प्रसाद मिश्र
6. त्रिलोचन

विज्ञान -

2. राजस्थान की रजत बूंदें
अभिव्यक्ति एवं माध्यम:-
जनसंचार माध्यम, फीचर, निबंध, अपठित
गद्यांश, पद्यांश

सितम्बर

SA-1= FA-1 + FA-2

आरोह गद्य खण्ड

7. मन्नू भंडारी
8. कृष्णचंद्र
9. जवाहर लाल नेहरू

10. सैयद हैदर रजा
काव्यखंड
7. दुष्यंत कुमार
8. अक्क महादेवी
9. पाश
10. निर्मला पुतुल

विज्ञान -

2. आलो-आंधारित

अभिव्यक्ति एवं माध्यम:-

रिपोर्ट, आलेख लेखन, निबंध, औपचारिक पत्र