

**S.H.I.P.S.**  
**APremierInstitution**  
**CourseofStudyforGrade XI(Science),2024-25**

**ENGLISH**

Month	Skill	Topic
April	Reading	Notes Making
	Writing	Advertisement Poster
	Grammar	Determiners, Tenses
	Literature	The Portrait of a Lady A Photograph Laburnum Top
	ASL	Introduction of Self, Narration of Short Story
May	Reading	Passage
	Writing	Speech
	Grammar	Modal
	Literature	The summer of beautiful white horse The Address
July	ASL	Best Friend, Family
	Reading	Passage
	Writing	Advertisement Posters Speech
	Grammar	Determiners, tenses, Modals
	Literature	Childhood We're not afraid to die.. Discovering Tut
	ASL	Listening Task
August	Reading	Passage, Notes making
	Writing	Revision of writing composition
	Grammar	Jumbled sentences
	Literature	Voice of Rain

September	ASL Term I Exam	Father to son Adventure Listening/ speaking Term I Exam
October	Reading Writing Grammar Literature ASL	Passages Short and long composition Gap Filling/Cloze Filling Mother's day Birth Situational questions
November	Reading Writing Grammar Literature ASL	Passages Short and long composition Revision Silk road Situational questions
December	Reading Writing Grammar Literature ASL	Passages Short and long composition Revision Tale of melon city Situational questions

## **PUNJABI**

ਅਪ੍ਰੈਲ- ਦੰਤਕਥਾ – ਪੂਰਨ ਭਗਤ,  
ਲੋਕਗੀਤ – ਸੁਹਾਗ ਪੱਤਰ,  
ਇਸਤਿਹਾਰ (1-10), ਮੁਹਾਵਰੇ,  
ਬੈਂਕ ਨਾਲ ਸੰਬੰਧਤ ਵਾਕ

ਮਈ- ਦੰਤਕਥਾ – ਰਾਜਾ ਰਸਾਲੂ,  
ਦੁੱਲਾਭੱਟੀ, ਲੋਕਗੀਤ - ਘੋੜੀਆਂ, ਦਫ਼ਤਰੀ ਸ਼ਬਦਾਵਲੀ, ਪੱਤਰ, ਲੇਖ, ਰੇਲਵੇ ਨਾਲ ਸੰਬੰਧਤ ਵਾਕ

ਜੁਲਾਈ - ਲੋਕਗੀਤ - ਬੋਲੀਆਂ, ਇਸਤਿਹਾਰ(11-20), ਦਫ਼ਤਰੀ ਸ਼ਬਦਾਵਲੀ, ਮੁਹਾਵਰੇ

ਅਗਸਤ – ਲੋਕ ਗੀਤ - ਟੱਪੇ,  
ਸੱਦਾ ਪੱਤਰ (1-6), ਮੁਹਾਵਰੇ, ਪੱਤਰ, ਲੇਖ  
ਦੁਹਰਾਈ

Unit Test - ਦੰਤਕਥਾ- ਪੂਰਨ ਭਗਤ, ਲੋਕ ਗੀਤ- ਸੁਹਾਗ ,ਇਸਤਿਹਾਰ (1-10), ਮੁਹਾਵਰੇ, ਬੈਂਕ ਨਾਲ ਸੰਬੰਧਤ ਵਾਕ, ਪੱਤਰ , ਦਫਤਰੀ ਸ਼ਬਦਾਵਲੀ

ਸਤੰਬਰ2024 Term - I

ਅਕਤੂਬਰ - ਪ੍ਰੀਤਕਥਾ – ਹੀਰ  
ਰਾਂਝਾ, ਲੋਕਗੀਤ- ਸਿੱਠਣੀਆਂ, ਵੱਖ-ਵੱਖ ਵਿਸ਼ਿਆਂ ਨਾਲ ਸੰਬੰਧਤ ਸ਼ਬਦਾਵਲੀ, ਡਾਕ ਨਾਲ ਸੰਬੰਧਤ ਵਾਕ, ਮੁਹਾਵਰੇ,  
ਸੱਦਾ ਪੱਤਰ (7-12), ਪੱਤਰ

ਨਵੰਬਰ – ਪ੍ਰੀਤ ਕਥਾ – ਮਿਰਜ਼ਾ ਸਾਹਿਬਾ, ਲੋਕ ਸਾਹਿਤ - ਢੋਲਾ ,ਪੱਤਰ, ਲੇਖ, ਕੰਪਿਊਟਰ ਨਾਲ ਸੰਬੰਧਤ ਵਾਕ

ਦਸੰਬਰ – ਲੋਕ ਸਾਹਿਤ- ਮਾਹੀਆ

,ਬੁਝਾਰਤਾਂ, ਲੇਖ, ਬੀਮਾ ਸੇਵਾਵਾਂ ਨਾਲ ਸੰਬੰਧਤ ਵਾਕ

ਜਨਵਰੀ - ਦੁਹਰਾਈ

ਫਰਵਰੀ- ਦੁਹਰਾਈ

ਮਾਰਚ - Term - II

## **PHYSICALEDUCATION**

### **APRIL**

Chapter1–

ChangingTrendsandCareerinPhysicalEducationChapter2–

Olympism Value Education

### **May**

Chapter 2 – Olympism Value Education

Chapter 3 – Yoga

### **Periodic Test 1**

Chapter 1 and Chapter 2

### **June**

Practical Work

Fitness tests administration. (SAI Khelo India Test)

### **July**

Chapter 4 – Physical Education and Sports for CWSN

Chapter 5 – Physical Fitness, Wellness and Lifestyle

### **Periodic Test 2**

Chapter 3

Chapter 4

### **August**

Chapter 6:- Test, Measurement and Evaluation

Practical work :- Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease

### **September**

**Term 1 Exam**

Chapter 1 to 5

### **Term 2 Syllabus**

### **October**

Chapter 7 – Fundamentals of Anatomy, Physiology in Sports.

Chapter 8 – Fundamentals of Kinesiology and Biomechanics in Sports.

### **Periodic Test 3**

Chapter 6, 7 & 8.

### **November**

Chapter 9 – Psychology and Sports.

Practical Work:- Proficiency in Game. (Skill of any one IOA recognised Sports/ Game of choice)

### **December**

Chapter 10 – Training and Doping in Sports

## Periodic Test 4

Chapter 9 & 10

### January

Practical Classes and Revision

### February

Revision Tests

### March

Final Exam

## PHYSICS

### Term-1

Ch-2 Units and  
Measurements Ch-3 Motion in  
Straight Line

### MAY

Ch-4 Motion in Plane  
Ch-5 Laws of Motion

### UT-1

Ch.2 units and  
measurement Ch 3 Motion in  
straight line Ch4 Motion in  
plane

### JULY

Ch-4 Motion in Plane  
Ch -5 Laws of Motion  
Ch-6 Work, Energy and Power

### AUGUST

Ch-7 System of particles and rotational motion  
Ch-8 Gravitation

### SEPTEMBER

Term-1 exams.

### OCTOBER

Ch-10 Mechanical Properties of  
Fluid Ch-11 Thermal Properties

### NOVEMBER

Ch-12 Thermodynamics.  
Ch-13 Behaviour of Perfect Gases and Kinetic Theory of Gases

## DECEMBER

Ch-14 Oscillations

### UT-2

Ch 9 Mechanical Properties of solids.  
Ch 10 mechanical properties of fluid  
Ch 11 Thermal properties

Ch 12 Thermodynamics

## JANUARY

Ch-15 Waves

## FEBRUARY

Revision

## MARCH

Annual exam.

## SYLLABUS FOR PRACTICALS

### APRIL

To measure diameter of spherical bob using vernier calipers.

### May

To find diameter and depth of beaker using vernier caliper

### JULY

To measure thickness of sheet using screw gauge

### AUGUST

To find volume of lamina using screw gauge

### OCTOBER

To find force constant of helical spring by plotting graph between load and extension

### NOVEMBER

To find mass of two unknown objects using beam balance

### DECEMBER

To use simple pendulum, plot  $t^2$  graph and find value of acceleration due to gravity

### JANUARY

To study variation of time period of simple pendulum of given length but different masses .

### Term-1

Ch-2 Units and measurement  
Ch-3 Motion in straight line  
Ch-4 Motion in plane

Ch-5 Laws of motion

Ch-6 Work, power and energy  
Ch-7 Motion of system

Motion of system

Ch 8 gravitation

## CHEMISTRY

Term 1

1 Some Basic Concepts of Chemistry (April)

2 Structure of Atom (April, May)

- 3 Classification of Elements and Periodicity in Properties(July)
  - 4 Chemical Bonding and Molecular Structure (July)
  - 5 Chemical Thermodynamics (August)
- Term 2
- 6 Equilibrium (October)
  - 7 Redox Reactions (November)
  - 8 Organic Chemistry: Some basic Principles and Techniques(November,December )
  - 9 Hydrocarbons (January, February)

#### List of Practicals

- 1.Determination of melting point of an organic compound. (May)
2. Determination of boiling point of an organic compound. (May)
3. Crystallization of impure sample of any one of the following: Alum, Copper Sulphate, Benzoic Acid(May)
- 4.Comparing the pH of solutions of strong and weak acids of same concentration. (August)
- 5.Study the pH change in the titration of a strong base using universal indicator.(August)
- 6.Preparation of standard solution of Oxalic acid. (October)
- 7.Determination of strength of a given solution of Sodium hydroxide by titrating it against standard solution of Oxalic acid. (October)
8. Preparation of standard solution of Sodium carbonate. (October)
9. Determination of strength of a given solution of hydrochloric acid by titrating it against standard Sodium Carbonate solution.(October)
10. Determination of one anion and one cation in a given salt( minimum 3 salts)(November)
- 11.Detection of -Nitrogen, Sulphur, Chlorine in organic compounds.(November, December)

## MATHEMATICS

**M.M.: 80**

**Time: - 3 hrs.**

Format for Term Question Paper:-

Form of Questions	No. of Questions	Marks of each question	Total
M.C.Q. s	20	1	20
Very Short Answer type questions	5	2	10
Short Answer type questions	6	3	18
Long Answer type questions	4	5	20
Case Base Study questions	3	4	12
<b>Total</b>			<b>80</b>

Format for U.T. Question Paper:-

Form of Questions	No. of Questions	Marks of each question	Total
M.C.Q. s	10	1	10

Very Short Answer type questions	5	2	10
Short Answer type questions	4	3	12
Long Answer type questions	2	5	10
Case Base Study questions	2	4	8
Total			50

<b>Internal Assessment</b>	<b>20 Marks</b>
Pen Paper Test (U.T.) and multiple Assessment (5+5)	10 Marks
Mathematics Activities	10 Marks

### Class XI

Unit No.	Name of the Unit	Course Content	No. of Lectures required	Month
1	Sets and Functions	Sets (Chapter 1)	15	April
		Relations and functions (Chapter 2)	10	April
		Trigonometric functions (Chapter 3)	18	May
2	Algebra	Complex Numbers and Quadratic equations (Ch-4)	10	May
		Linear Inequalities (Ch-5)	10	July
		Permutations and Combinations (Ch-6)	10	July
		Binomial Theorem (Ch-7)	10	August
		Sequence and Series (Ch-8)	12	August
3	Coordinate Geometry	Straight Lines (Ch-9)	15	Sep./Oct.
		Conic Sections (Ch-10)	10	October
		Introduction to three dimensional geometry (Ch-11)	10	Oct./Nov.
4	Calculus	Limits and Derivatives	18	Nov.
5	Statistics Probability	Statistics (Ch-15)	10	Dec.
		Probability (Ch-16)	10	Dec/Jan

## **BIOLOGY**

Term -1

April

ch.1 The Living world.

ch.2 Biological classification



May

ch.3 Plant Kingdom

ch.5 Morphology of flowering plants (July half)

July

ch.6 Anatomy of flowering plants

ch.7 St. organisation in Animals.

Aug

Ch.15 Plant growth & Development

Ch.13 Photosynthesis in plants

ch.14 Respiration in plants

### Term - II

Oct

Ch. 4 Animal Kingdom.

ch. 8 Cell - The unit of Life

Nov

Ch.10 Cell cycle and cell Division

Ch. 9. Biomolecules

Dec

Ch.17 Breathing and Exchange of gases

Ch.18 Body Fluid

ch. 19 Excretory Products

Ch. 20 Locomotion and Movement

Jan

Ch. 21 Neural control & coordination

Ch-22 Chemical coordination.

### Syllabus of Practicals

Time: 03 Hours.

M.Mark30

### Evaluation Scheme

One Major Experiment Part A (Experiment No-1,3,7,8) 5M

One Minor Experiment Part A (Experiment No- 6,9,10,11,12,13). 4M

Slide Preparation Part A (Experiment No-2,4,5). 5M

Spotting Part B. 7M

Practical Record + Viva Voce. 4M

Project Record + Viva Voce. 5M

### Part - A

A: List of Experiments

1. 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).
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/lily leaves or flashy scale leaves of onion bulb).
5. Study of distribution of stomata on the upper and lower surfaces of leaves.
6. Comparative study of the rates of transpiration in the upper and lower surfaces of leaves.
7. Test for the presence of sugar, starch, proteins and fats 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.

## Part - B

Study and observe the following

(Spotting)

1. Parts of a compound microscope.
2. Specimens/slides/models and identification with reasons -Bacteria, Oscillatoria, moss, fern, pine, Spirogyra, Rhizopus, mushroom, yeast, liverwort, monocotyledonous plant, one dicotyledonous plant and one lichen.
3. Virtual specimens/slides/models and identifying features of - Amoeba, Hydra, liverfluke, Ascaris, leech, earthworm, prawn, silkworm, honey bee, snail, starfish, shark, rohu, frog, lizard, pigeon and rabbit.
4. Mitosis in onion root tip cells and animals cells (grasshopper) from permanent slides.
5. Different types of inflorescence (cymose and racemose).
6. Human skeleton and different types of joints with the help of virtual images/models only.

Syllabus of Unit Test 1

- Living world
- Biological classification
- Plant kingdom

## INFORMATICS PRACTICES

### CLASS -XI

April:

1. Basics of Computer System
2. Programming with Python

May:

3. Python Basics
4. Datatypes and Operators

July:

5. Control Flow
- Practical Sessions

August

- Term 1-Final Practical

September

- Term 1 Examination

October

6. List Manipulation
7. Python Dictionary

November

8. Database Concept

December

9. Structured Query Language

January

10. Emerging Trends
- Practical Sessions

February

- Final Practical

March

- Term 2 Examination