

S.H.I.P.S.
APremierInstitution

Course of Study for Grade XII (Science), 2024-25

ENGLISH

Month	Skill	Topic
April	Reading	Comprehension
	Writing	Notice Invitation
	Literature	The last lesson Lost spring My Mother at sixty six
	ASL	Self Intro. Narrating Story
May	Reading	Case base Passage
	Writing	Job Letter Article
	Literature	Keeping Quiet The Third Level The Tiger King
	ASL	Listening Task
July	Reading	Passage
	Writing	Report Article
	Literature	The Rattrap A Thing Of Beauty
	ASL	Listening Task
August	Reading	Passage
	Writing	Revision of writing composition
	Literature	Journey to the end of the earth
	ASL	
September	Term I Exam	Listening/ speaking Term I Exam

October	Reading	
	Writing	Passages
	Literature	Short and long composition
November	ASL	Indigo A road side Stand Poets and pancakes Situational questions
	Reading	
	Writing	Passages
	Literature	Short and long composition
December	ASL	The Enemy Interview Situational questions
	Reading	
	Writing	Passages
	Literature	Short and long composition
	ASL	Going places On the face of it Memories of Childhood Aunt Jennifer's Tigers Situational questions

PUNJABI

ਅਪ੍ਰੈਲ - ਕਹਾਣੀ - ਸਾਂਝ, ਕਵਿਤਾ - ਟੁਕੜੀ ਜੱਗ ਤੋਂ ਨਿਆਰੀ, ਪੱਤਰ, ਪੈਰਾ ਰਚਨਾ, ਅਖਾਣ (1-15)

ਮਈ - ਪੰਜਾਬ ਦੇ ਮੇਲੇ ਤੇ ਤਿਉਹਾਰ, ਪੱਤਰ, ਪੈਰਾ ਰਚਨਾ, ਅਖਾਣ (16-30), ਵਾਕ ਵਟਾਂਦਰਾ

ਜੁਲਾਈ - ਤਾਜ ਮਹੱਲ, ਕਹਾਣੀ - ਨੀਲੀ, ਵਾਕ ਵਟਾਂਦਰਾ, ਪੱਤਰ

ਅਗਸਤ - ਪੰਜਾਬ ਦੇ ਰਸਮ ਰਿਵਾਜ, ਕਵਿਤਾ - ਚੁੰਮ ਚੁੰਮ ਰੱਖੋ, ਪੱਤਰ, ਪੈਰਾ ਰਚਨਾ

ਸਤੰਬਰ - Term - I ਪ੍ਰੀਖਿਆ

Unit Test -1 ਕਹਾਣੀ- ਸਾਂਝ, ਕਵਿਤਾ- ਟੁਕੜੀ ਜੱਗ ਤੋਂ ਨਿਆਰੀ, ਪੰਜਾਬ ਦੇ ਮੇਲੇ ਤੇ ਤਿਉਹਾਰ, ਪੱਤਰ, ਅਖਾਣ (1-30), ਪੈਰਾ

ਰਚਨਾ,
ਵਾਕ ਵਟਾਂਦਰਾ

ਅਕਤੂਬਰ –ਮਾੜਾ ਬੰਦਾ,ਕਵਿਤਾ- ਵਾਰਸ ਸ਼ਾਹ, ਪੈਰਾ ਰਚਨਾ, ਸੰਖੇਪ ਰਚਨਾ

ਨਵੰਬਰ – ਪੰਜਾਬ ਦੀਆਂ ਲੋਕ - ਖੇਡਾਂ, ਕਵਿਤਾ – ਮੇਰਾ ਬਚਪਨ ,ਕਹਾਣੀ – ਘਰ ਜਾ ਆਪਣੇ

ਦਸੰਬਰ – ਪੰਜਾਬ ਦੇ ਲੋਕ ਨਾਚ,
ਕਵਿਤਾ - ਗੀਤ

ਜਨਵਰੀ - ਦੁਹਰਾਈ
ਫਰਵਰੀ - ਦੁਹਰਾਈ

ਮਾਰਚ - Term - II

PHYSICALEDUCATION

Term 1 Syllabus

April:-

Chapter 1 – Management of Sporting Events

Chapter 2 – Children and Women in Sports

May:-

Chapter 2 – Children and Women in Sports

Chapter 3 – Yoga as Preventive Measures for Lifestyle Diseases

Periodic Test 1

Chapter 1 and Chapter 2

June: - Practical Work

Procedure for Asanas, Benefits & Contraindication for any two Asanas for each lifestyle disease.

July:-

Chapter 4 – Physical Education and Sports for CWSN

Chapter 5 – Sports and Nutrition

Periodic Test 2

Chapter 3

Chapter 4

August:-

Chapter 6:- Test and Measurement in Sports

Practical work :-Fitness tests administration.

September:-

Term 1 Exam

Chapter 1 to 5

Term 2 Syllabus

October:-

Chapter 7 – Physiology and Injury in Sports

Chapter 8 – Biomechanics and 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 in Sports

Periodic Test 4

Chapter 9 & 10

January

Practical Classes and Revision

February

Revision of Sample Paper's

March

Final Exam

PHYSICS

APRIL

Term-1

Ch1 Electric Charges and Field

Ch2 Potential and Capacitance

MAY

CH3 Current Electricity

JULY

CH4 Effect of Current and Magnetism

CH5- Magnetism and Matter CH6-

Electromagnetic Induction

AUGUST

CH7- Alternating Current

CH8- Electromagnetic Waves CH9-

Ray Optics (Half) SEPTEMBER

Term1 exams

Term-2

OCTOBER

CH9- Ray Optics

(continue)

CH10- Wave Optics

NOVEMBER

CH11- Dual Nature

CH12 – Atoms

CH13- Nuclei

DECEMBER

CH14- Semiconductor

REVISION

January

Revision of whole syllabus

FEBRUARY

Full syllabus (Pre Board)

March

Finalexams.

SYLLABUS FOR PRACTICALS

APRIL

Experiment: To Determine Angle of Minimum Deviation For Given Prism By Plotting Graph
Activity: To observe refraction in slab

MAY

EXPERIMENT: To Draw I-V Characteristics For Pn Junction

Activity- To assemble household circuit having, bulb, switch, fuse and power source

JULY

Experiment : To Find Resistance Using Metre Bridge
Activity-To assemble component of given electrical circuit

AUGUST

Experiment: To Verify Laws of Combination Using Metre Bridge
Activity: To Measure Resistance, Voltage Using Multimeter

OCTOBER

Experiment: To find focal length of lens using u-v
graph
Activity: to study nature of images formed by lens

NOVEMBER

Experiment: To Convert Galvanometer Into Voltmeter

December

Experiment: To Find Resistance of Galvanometer By Half Deflection

Pre board full syllabus

CHEMISTRY

1. Solutions (April)
2. Electrochemistry (April, May)
3. Chemical Kinetics (July)
4. d -and f -Block Elements (July, August)
5. Coordination Compounds (August)
6. Haloalkanes and Haloarenes (August half)
7. Haloalkane + Haloarene (October remaining half)
8. Alcohols, Phenols and Ethers (October)
9. Aldehydes, Ketones and Carboxylic Acids (October, November)
10. Amines (November)
11. Biomolecules (November)

List of practical. (12 chem)

Exp.1 To prepare colloidal solution of starch.

Exp. 2. To study the role of emulsifying agents in stabilizing the emulsions of different oils and compare their behaviour.

Exp.3. To study the effect of concentration on the rate of reaction between sodium thiosulphate and Hydrochloric acid.

Exp.4. Determine heat of neutralisation of a strong acid (HCl) and strong base (NaOH)

Exp.5 To study variation of cell potential in Zn-Cu cell on changing concentration of electrolytes at room temperature.

Exp. 6. To separate the coloured components present in mixture of inks by ascending paper chromatography.

Exp.7. To prepare crystals of Ferrous Ammonium sulphate (Mohr's salt)

- Exp. 8. To prepare a pure sample of di-benzal acetone.
 Exp.9. To identify functional groups in the given organic compounds.
 Exp.10. To study presence of carbohydrates, fats and protein in the given food stuff.
 Exp.11. To prepare 250 ml of M/20 Oxalic acid.
 Exp.12. To determine molarity and strength of KMnO_4 by titrating against standard solution of Oxalic acid.
 Exp.13. To calculate molarity and strength of KMnO_4 by titrating against M/20 Mohrs salt.
 Exp. 14. To calculate the value of x water molecules in Oxalic acid by titrating against M/20 KMnO_4 solution.
 15. To analyse the given salt for acidic or basic salt.

MATHEMATICS

M.M.: 80
3 hrs.

Time: -

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
Total			80

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

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

Unit No.	Name of the Unit	Course Content	No. of Lectures required	Month
1	Relations and Functions	Relations and functions (Ch-1) Inverse Trigonometric functions (Ch-2)	15 15	April April
2	Algebra	Matrices (Ch-3) Determinants (Ch-4)	15 15	May May
3	Calculus	Continuity and differentiability (Ch-5) Applications of Derivatives (Ch-6) Integrals (Ch-7) Applications of Integrals (Ch-8) Differential Equations (Ch-9)	20 15 20 10 15	July July August August October
4	Vectors and 3D	Vectors (Ch-10) Three dimensional Geometry (Ch-11)	15 18	October November
5	Linear Programming	Linear Programming (Ch-12)	15	November/ December
6	Probability	Probability (Ch-13)	20	December

BIOLOGY

Term - 1

APRIL

Ch.2 Sexual Rep in plants
Ch.3 Human Reproduction

May

Ch.4 Reproductive Health

July

Ch.8 Human Health and Diseases
Ch.10 Microbes in Human welfare.

August

ch.5 Principles of Inheritance

Term - 2

Oct

ch.6 Molecular Basis of Inheritance
ch.7 Evolution

Nov

ch.7 Evolution
ch.11 Biotechnology - Principles & Process.
ch.12 Biotechnology - Application.

Dec

ch.13 organism and population
ch.14 Ecosystem
ch.15 Biodiversity in organism

Syllabus of Practicals

Class 12

Time: 03 Hours.

M.Mark30

Evaluation Scheme

One Major Experiment Part A (Experiment No-5)	5M
One Minor Experiment Part A (Experiment No- 2,3).	4M
Slide Preparation Part A (Experiment No-1,4).	5M
Spotting Part B.	7M
Practical Record + Viva Voce.	4M
Project Record + Viva Voce.	5M

Part - A

A: List of Experiments

Sect- A List of Experiments

1. Prepare a temporary mount to observe pollen germination.
2. Study the plant population density by quadrat method.
3. Study the plant population frequency by quadrat method.
4. Prepare a temporary mount of onion root tip to study mitosis.
5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc.

Part - B

Study and observe the following (Spotting):

1. Flowers adapted to pollination by different agencies (wind, insects, birds).
2. Pollen germination on stigma through a permanent slide or scanning electron micrograph.
3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice).
4. Meiosis in onion bud cell or grasshopper testis through permanent slides.
5. T.S. of blastula through permanent slides (Mammalian).
6. Model specimen showing symbiotic association in roots nodules of leguminous plants, cuscuta on host and lichens
7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness.
8. Controlled pollination - emasculation, tagging and bagging.
9. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.
10. Flash cards model showing examples of homologous and analogous organs.

Syllabus of Unit Test 1

- Reproduction in flowering plants
- Human Reproduction
- Reproductive health

INFORMATION TECHNOLOGY

Class XII Year Planner (2024-25) Subject:-Computer

Max.Time:3Hour

Max.Marks: 60

Term 1 Syllabus

April:-

Part B: Unit I: RDBMS Concepts and commands

Test -1

May:-

Part B: Unit I: RDBMS Queries

Part A: Unit IV: Entrepreneurial Skills

Test – 2

June: - UNIT TEST I (Part A: Unit IV and Part B: Unit I)

July:-

Part B: Unit III: Fundamentals of Java Programming

Part A: Unit III: ICT Skills, Unit V:Green Skills

Test -3

August:-

Part A: Unit II: Self-Management Skills

Practical (RDBMS)

September:-

Term I

October:

Part B: Unit I: Operating Web-Based Applications

Part A: Unit I: Communication Skills

November:

Revision for Prelims

Prelims I/Term I

Part B: Unit IV: Work Integrated learning IT-DMA

December:

Part A: Unit I: Communication skills

January:

Revision

February: Term II