



MOUNT CARMEL SCHOOL, CHANDIGARH
Syllabus Session 2024-25
Class : XII Science (Term-2)

ENGLISH (301)

1. Flamingo:

(Prose)

- The Last Lesson
- Lost Spring
- Deep Water
- The Rattrap
- Indigo
- Poets and Pancakes
- The Interview
- Going Places

(Poetry)

- My Mother at Sixty-Six
- Keeping Quiet
- A Thing of Beauty
- A Roadside Stand
- Aunt Jennifer's Tigers

2. Vistas:

- The Third Level
- The Tiger King
- Journey to the end of the Earth
- The Enemy
- On the Face of It
- Memories of Childhood
 - The Cutting of My Long Hair
 - We Too are Human Beings

MARKING SCHEME

Section - A Reading Skills

I. Reading Comprehension through Unseen Passage (22 Marks)

1. One unseen passage to assess comprehension, interpretation and inference.

Vocabulary and inference of meaning will also be assessed. The passage may be factual, descriptive or literary. **(12x1=12Marks)**

2. One unseen **case-based** passage with verbal/visual inputs like statistical data, charts etc.

(10x1=10 Marks)

Note: The combined word limit for both the passages will be 700-750 words. Multiple Choice Questions / Objective Type Questions will be asked.

Section – B (18 Marks)

II. Creative Writing Skills:

The section has Short and Long writing tasks.

3. Notice up to 50 words. One out of the two given questions to be answered. **(4 Marks)**.
4. Formal/Informal Invitation and Reply up to 50 words. One out of the two given questions to be answered. **(4 Marks)**.
5. Letters based on verbal/visual input, to be answered in approximately 120-150

words. Lettertypes include application for a job with bio data or resume.
Letters to the editor (giving suggestions or opinion on issues of public interest). One out of the two given questions to be answered .

(5 Marks).

6. Article/ Report Writing, descriptive and analytical in nature, based on verbal inputs, to be answered in 120-150 words. One out of the two given questions to be .
(5 Marks).

III. Section - C (40 Marks)

This section will have variety of assessment items including Multiple Choice Questions, Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions to assess comprehension, analysis, interpretation and extrapolation beyond the text.

Reference to the Context

7. One Poetry extract out of two from the book **Flamingo** to assess comprehension, interpretation, analysis and appreciation. (6x1=6 Marks)
8. One Prose extract out of two from the book **Vistas** to assess comprehension, interpretation, analysis and appreciation. (4x1=4 Marks)
9. One prose extract out of two from the book **Flamingo** to assess comprehension, interpretation and analysis. (6x1=6Marks)
10. Short answer type question (**from Prose and Poetry from the book Flamingo**), to be answered in 40-50 words. Questions should elicit inferential responses through critical thinking. Five questions out of the six given are to be answered.
(5x2=10 Marks)
11. Short answer type question, from **Prose (Vistas)**, to be answered in 40- 50 words. Questions should elicit inferential responses through critical thinking. Any 2 out of 3 questions to be done. (2x2=4 Marks)
12. One Long answer type question, from **Prose/Poetry (Flamingo)**, to be answered in 120-150 words. Questions can be based on incident / theme / passage / extract / event as reference points to assess extrapolation beyond and across the text. The question will elicit analytical and evaluative response from student. Any 1 out of 2 questions to be done.
(1x5=5 Marks)
13. One Long answer type question, based on the chapters from the book **Vistas**, to be answered in 120-150 words to assess global comprehension and extrapolation beyond the text. Questions to provide evaluative and analytical responses using incidents, events, themes as reference points. Any 1 out of 2 questions to be done.
(1x5=5 Marks)

INTERNAL ASSESSMENT:

Assessment of Listening Skills - 05 marks.

Assessment of Speaking Skills – 05 Marks

Project Work- 10 Marks

*** All chapters and Writing Compositions done in Term I will also be included for the Final Examination.**

MATHS (041)

| MONTH | CHAPTER | TOPIC |
|----------|---------|----------------------------|
| OCTOBER | 9 | Differential Equations |
| | 10 | Vector Algebra |
| NOVEMBER | 11 | Three Dimensional Geometry |
| | 13 | Probability |

Format and Marks Distribution:

Unit Test: 20 marks

Final Examination : 80 marks

Unit Test(20 marks)

| S. No | Type | Total Marks |
|-------|---------------------------------|----------------|
| 1 | Very Short Answer Type Question | 5 x 1= 5 marks |
| 2 | Short Answer Type Question | 5x 3 =15 marks |

Marking scheme of Final Examination (80 Marks)

| SECTION | TYPE | NO. OF QUESTIONS | MARKS PER QUESTION | TOTAL MARKS |
|---------|---------------------------------|------------------|--------------------|-------------|
| A | MCQs. | 20 | 20 | 20 |
| B | Very Short Answer Type Question | 5 | 2 | 10 |
| C | Short Answer Type Question | 6 | 3 | 18 |
| D | Long Answer Type Question | 4 | 5 | 20 |
| E | Case Study | 3 | 4 | 12 |

***All chapters done in Term I will also be included for the Final Examination**

INTERNAL ASSESSMENT

20 Marks

Periodic Tests (Best 2 out of 3 tests conducted)

10 Marks

Mathematics Activities

10 Marks

Including Lab Manual & Practical }

CHEMISTRY(043)

Theory Work:

| <u>Month</u> | <u>Unit No</u> | <u>Chapter</u> |
|--------------|----------------|---|
| October | 6 | Haloalkanes and Haloarenes |
| | 7 | Alcohols, Phenols and Ethers |
| | 8 | Aldehydes, Ketones and Carboxylic Acids |
| November | 9 | Amines |
| | 10 | Bio-molecules |
| | | Revision work |

Practical Work:(Maximum Marks:30)***Salt Analysis:****Acidic and Basic Radicals*****Content Based Experiment:
compounds****Tests of Functional Groups in organic****Format of Question Paper for Unit Test : 20 Marks**

There are 07 questions in the question paper.

- (i) SECTION -A consists of 3 very short answer questions carrying 2 marks each.
- (ii) SECTION -B consists of 3 short answer questions carrying 3 marks each.
- (iii) SECTION -C consists of 1 long answer questions carrying 5 marks.

Format of Question Paper for Examination: 70 Marks

There are 33 questions in the question paper with internal choice.

- (i) SECTION -A consists of 16 objective questions carrying 1 mark each.
- (ii) SECTION -B consists of 5 very short answer questions carrying 2 marks each.
- (iii) SECTION -C consists of 7 short answer questions carrying 3 marks each.
- (iv) SECTION -D consists of 2 case-based questions carrying 4 marks each.
- (v) SECTION -E consists of 3 long answer questions carrying 5 marks each.

Practical

| Evaluation Scheme for Examination | Marks |
|-----------------------------------|-------|
| Volumetric Analysis | 8 |
| Salt Analysis | 8 |
| Content Based Experiment | 6 |
| Project Work | 4 |
| Class Record & Viva | 4 |
| Total | 30 |

Note: Subject to changes as per CBSE instructions.**BIOLOGY (044)****Theory**

1. Chapter-8: Human Health and Diseases.
2. Chapter-9: Microbes in Human Welfare.
3. Chapter-10: Biotechnology-Principles and Processes.
4. Chapter-11: Applications of Biotechnology.
5. Chapter-13: Organisms and Populations.
6. Chapter-14: Ecosystem.
7. Chapter-15: Biodiversity and its Conservation.

Practicals**A. List of Experiments**

1. Study the plant population density by quadrat method.
2. Study the plant population frequency by quadrat method.
3. Prepare a temporary mount of onion root tip to study mitosis.

B. Study and observe the following (Spotting):

1. Meiosis in onion bud cell or grasshopper testis through permanent slides.
2. 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.
3. Models specimen showing symbiotic association in root nodules of leguminous plants, *Cuscuta* on host, lichens.

NOTE: All the Chapters and Practicals covered in Term-I will also be included for the Final Examination.

NOTE: All the Chapters and Practicals covered in Term-I will also be included for the Final Examination.

Unit Test

| TYPE OF QUESTION | No. of Qs | Marks for each Qs | Total Marks |
|-----------------------|-----------|-------------------|-------------|
| Objective Based Items | 2 | 1 | 2 |
| Very Short Answer | 2 | 2 | 4 |
| Short Answer | 3 | 3 | 9 |
| Long Answer | 1 | 5 | 5 |
| Grand Total | 7 | | 20 |

Typology of Questions: Theory (70 Marks)

Competency Based Questions would be minimum 30% These can be in the form of Multiple Choice Questions, Case based Questions, Source based Integrated Questions or any other types.

• Objective Type Questions will be 20% • Remaining 50% Short Answer/Long Answer Questions

Practical Evaluation Scheme

- One Major Experiment (Part A) 5 Marks
- One Minor Experiment (Part A) 4 Marks
- Slide Preparation (Part A) 5 Marks
- Spotting (Part B) 7 Marks
- Practical Record + Viva Voce 4 Marks
- Project Record + Viva Voce 5 Marks

PHYSICS (042)

October: Chapter–9: Ray Optics and Optical Instruments

Chapter–10: Wave Optics

Chapter–11: Dual Nature of Radiation and Matter

November: Chapter–12: Atoms

Chapter–13: Nuclei

Chapter–14: Semiconductor -Electronics: Materials, Devices and Simple Circuits

Revision for Final Examination

UNIT TEST

| TYPE OF QUESTION | No. of Qs | Marks for each Qs | Total Marks |
|-------------------|-----------|-------------------|-------------|
| Very Short Answer | 3 | 2 | 6 |
| Short Answer | 3 | 3 | 9 |
| Long Answer | 1 | 5 | 5 |
| Grand Total | 7 | | 20 |

Typology of Questions: Theory (70 Marks)

Competency Based Questions would be minimum 30% These can be in the form of Multiple Choice Questions, Case based Questions, Source based Integrated Questions or any other types.

• Objective Type Questions will be 20% • Remaining 50% Short Answer/Long Answer Questions

Note:

*All chapters done in Term I shall also be included for the final examination

* Subject to changes as per CBSE instructions

Practical Evaluation Scheme

| | |
|--|-----|
| Two experiments one from each section | 7+7 |
| Practical record (experiment and activities) | 5 |
| One activity | 3 |
| Investigatory Project | 3 |
| Viva on experiments, activities and project | 5 |
| Total | 30 |

INFORMATICS PRACTICES (065)

Marks Distribution :-

Theory : 70 Marks

Practical : 30 Marks

Total :- 100 Marks

October Unit 2 – Lesson-4 Database Query using SQL

Revision of Database Concepts and SQL Commands covered in Class 11

Math functions: POWER (), ROUND (), MOD (). Text functions: UCASE ()/UPPER (), LCASE ()/LOWER (), MID ()/SUBSTRING ()/SUBSTR (), LENGTH (), LEFT (), RIGHT (), INSTR (), LTRIM (), RTRIM (), TRIM ().

Date Functions: NOW (), DATE (), MONTH (), MONTHNAME (), YEAR (), DAY (), DAYNAME (). Aggregate Functions: MAX (), MIN (), AVG (), SUM (), COUNT (); using COUNT (*). Querying and manipulating data using Group by, Having, Order by ,

Working with two tables using equi-Join

November Unit 3-- Introduction to Computer Networks

Unit 3-- Introduction to Computer Networks

Introduction to networks, Types of network: PAN, LAN, MAN,WAN. Network Devices: modem, hub, switch, repeater, router, gateway .

Network Topologies: Star, Bus, Tree, Mesh.

Introduction to Internet, URL, WWW, and its applications- Web, email, Chat, VoIP.

Website: Introduction, difference between a website and webpage, static vs dynamic web page, web server and hosting of a website.

Web Browsers: Introduction, commonly used browsers, browser settings, add-ons and plug-ins, cookies.

December Revision and Pre-board Examination

January Revision for Board Exams

February Final Practicals of CBSE Board Exams

March Final Examination

**** Syllabus covered in Term-1 will be also included in the Annual Examination of CBSE ***

Practical Marks Distribution

| S. No. | Unit Name | Marks |
|--------|--|-----------|
| 1 | Programs using Pandas and Matplotlib | 8 |
| 2 | SQL Queries | 7 |
| 3 | Practical file (minimum of 15 programs based on Pandas, 4 based on Matplotlib and 15 SQL queries must be included) | 5 |
| 4 | Project Work (using concepts learned in class XI and XII) | 5 |
| 5 | Viva-Voce | 5 |
| | TOTAL | 30 |

Final Examination : (Theory Paper)

| | |
|---|------------|
| Unit 1 (Data Handling using Pandas-I and Data Visualization) | - 25 Marks |
| Unit 2 Database Query using SQL | - 25 Marks |
| Unit 3 Introduction to Computer Networks- | 10 Marks |
| Unit 4 Societal Impact | - 10 Marks |

Marks Distribution – Theory Paper (70 Marks)

| | | | |
|--|-----|---------|----------|
| Section-A Q1 to Q21 (M.C.Q's) | --- | 1 x21 = | 21 Marks |
| Section-B Q22 to Q28 (Short Answer Type Questions) | --- | 2 x 7 = | 14 Marks |
| Section-C Q29 to Q32 (Short Answer Type Questions) | --- | 3 x 4 = | 12 Marks |
| Section-D Q33 and Q 34 (Case Study) | --- | 4 x 2 = | 8 Marks |
| Section-E Q35 to Q37 (Ling Answer Type Questions) | --- | 5 x 3 = | 15 Marks |
| Total | --- | | 70 Marks |

PHYSICAL EDUCATION (048)

Theory : 70 Marks

Practical : 30 Marks

October : Unit 8: Fundamentals of Kinesiology and Biomechanics in Sports

November: Unit 9: Psychology and Sports

Unit 10: Training and in Sports

Unit Test Marks Distribution (M.M.20)

| | |
|------------------------------|-------|
| One-mark questions: | 1x6=6 |
| Very short Answer questions: | 2x3=6 |
| Short Answer question: | 3x1=3 |
| Long Answer questions: | 5x1=5 |

Annual Marking Scheme –

- 1) The question paper consists of 5 sections and 37 Questions.
- 2) Section A consists of questions 1-18 carrying 1 mark each and is multiple choice questions.
All questions are compulsory.
- 3) Section B consists of questions 19-23 carrying 2 marks each.
- 4) Sections C consist of questions 24-28 carrying 3 marks each.
- 5) Section D consists of questions 29-31 carrying 4 marks each.
- 6) Section E consists of questions 32-34 carrying 5 marks each.

*** All chapters done in Term I will also be included for the Final Examination.**

Month-Wise Themes for the Display Boards- Senior Wing (Classes IX – XII)
(Session 2024-25)

| Month | Theme |
|----------------|---|
| April | Conservation of Nature |
| May | Dignity of Labour |
| July | Value of Tolerance and Democracy |
| August | Health and Physical Fitness |
| September | Women Empowerment |
| October | Communal Harmony & Equality |
| November | Wild Life: Our Special Friends |
| December | Christmas – A Time of Thanksgiving, Joy & Benevolence / Importance of Forgiveness |
| January, 2025 | Climate Changes & Its Impact |
| February, 2025 | Skill Based Education & Globalization |
| March, 2025 | Subject Streams & Career Options |

Unit Tests' Schedule (Term-II, 2024-25) [Class XII]

| Date | STREAM | | |
|----------------------|--------------------|--------------------|----------------------------------|
| | SCIENCE | COMMERCE | HUMANITIES |
| UNIT TEST – 3 | | | |
| 07-11-2024 | PHYSICAL EDUCATION | PHYSICAL EDUCATION | PHYSICAL EDUCATION / PSYCHOLOGY |
| 11-11-2024 | CHEMISTRY | ACCOUNTANCY | POLITICAL SCIENCE / HOME SCIENCE |
| 14-11-2024 | ENGLISH | ENGLISH | ENGLISH |
| 18-11-2024 | MATHS / BIOLOGY | MATHS | MATHS / ARTIFICIAL INTELLIGENCE |
| 21-11-2024 | I.P. | I.P. | I.P. |
| 26-11-2024 | PHYSICS | BUSINESS STUDIES | HISTORY / PAINTING |
| 28-11-2024 | ----- | ECONOMICS | ECONOMICS / GEOGRAPHY |