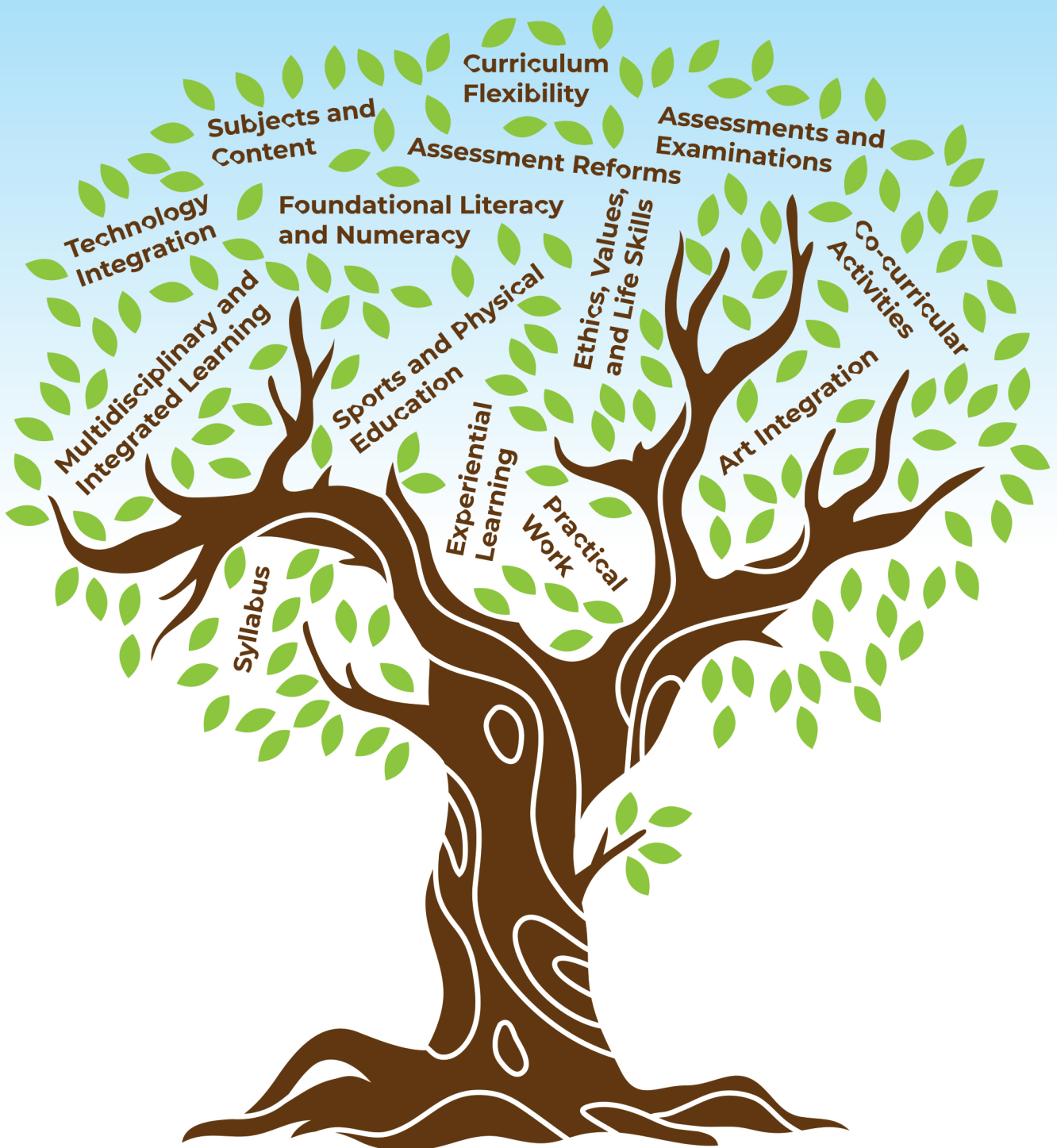




# ANNUAL CURRICULUM PLAN 2024-25

CLASS - XI(SCIENCE)





# CURRICULUM

**ODM EDUCATIONAL GROUP**



# ANNUAL CURRICULUM PLAN | SESSION 2024 - 25

The Annual Curriculum Plan refers to a comprehensive document or outline that provides a structured overview of the educational content and activities to be covered throughout an academic year. It serves as a roadmap for teachers, administrators, and educational institutions to ensure a coherent and balanced delivery of the curriculum.

## Objectives of the ACP

1. **Learning Objectives:** This plan includes specific learning goals and objectives for each subject or topic. These objectives define what students are expected to know, understand, and be able to do by the end of the year.
2. **Content Outline:** It provides a breakdown of the content to be covered in each subject area. This may include subtopics, chapters, or units to be addressed during different periods of the academic year.
3. **Assessment and Evaluation:** It specifies assessment methods, such as tests, projects, or presentations that will be used to evaluate student progress and understanding. It may also include information about grading criteria and the frequency of assessments.
4. **Integration and Interdisciplinary Connections:** In some cases, it will highlight opportunities for integrating subjects or making interdisciplinary connections. This promotes a holistic and interconnected approach to learning.
5. It serves as a guiding document for teachers; helping them stay organised and focused throughout the academic year. It provides a framework for instructional planning, content delivery, and assessment, ensuring a consistent and well-rounded educational experience for students.
6. **Resources and Materials:** It also includes the list of the textbooks, supplementary materials, and resources needed for effective teaching and learning. It ensures that teachers have access to appropriate resources to support the curriculum.

## Objectives | CBSE Curriculum

1. It aims to provide a comprehensive and holistic educational experience to students.
2. **Child-Centric Approach:** The CBSE curriculum places the student at the centre of the learning process. It recognizes the individuality, abilities, and interests of each student and aims to cater to their unique needs. The curriculum promotes student engagement, critical thinking, and overall development.
3. **Learning Outcomes:** The CBSE curriculum focuses on clearly defined learning outcomes. It specifies the knowledge, understanding, skills, and attitudes that students should acquire at each grade level. Learning outcomes help in setting clear expectations and provide a framework for teaching, learning, and assessment.
4. **Interdisciplinary Approach:** The CBSE curriculum encourages an interdisciplinary approach, integrating knowledge and skills from multiple subjects. It emphasizes connections between different subjects, promoting a holistic understanding of concepts and their real-world applications.
5. **Life Skills and Values:** CBSE places significant importance on the development of life skills and values among students. The curriculum includes components that aim to cultivate values such as honesty, empathy, respect, and responsible citizenship. It also focuses on developing essential life skills such as communication, critical thinking, problem-solving, and collaboration.
6. **Inclusion and Diversity:** CBSE curriculum promotes inclusivity and caters to the diverse needs of students. It recognizes the importance of providing equal opportunities and adapting teaching and assessment strategies to accommodate learners with different abilities, backgrounds, and learning styles.

## Examination Details | Session 2024 - 25

### Examination Schedule

Examination	Tentative Timeline (Exam Starts)	Tentative Timeline (Exam Ends)
Mid Term/Half Yearly	24th Sept, 2024	8th Oct, 2024
Periodic Assessment - 2	2nd Dec, 2024	7th Dec, 2024
Annual Examination	17th Feb, 2025	27th Feb, 2025

The Examination Schedule is tentative & subjected to change depending upon the external factors. If there will be any changes in the schedule/portion, it will be notified well before the examination by the School.

## Marks & Weightage

Subject	Mid Term/Half Yearly Full Marks - 70/80 Time - 3 hours	Periodic Assessment-2 Full Marks - 20 Time - 45 Minutes	Annual- Full Marks - 70/80 Time - 3 hours
English Physics Chemistry Mathematics Biology Computer Science Physical Education	- Pen & Paper Test: 70 or 80 Marks depending upon the subject	- Pen & Paper Test: 20 Marks	- Theory: 70 or 80 Marks depending upon the subject.  - Practical: 30 Or 20 Marks depending upon the subject

## Examination Portion

### English –

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
<ol style="list-style-type: none"> <li>Hornbill: English Reader published by National Council of Education Research and Training, New Delhi <ul style="list-style-type: none"> <li>The Portrait of a Lady (Prose)</li> <li>A Photograph (Poem)</li> <li>“We’re Not Afraid to Die... if We Can All be Together</li> <li>Discovering Tut: the Saga Continues</li> <li>The Laburnum Top (Poem)</li> <li>The Voice of the Rain (Poem)</li> <li>Childhood (Poem)</li> </ul> </li> <li>Snapshots: Supplementary Reader published by National Council of Education Research and Training, New Delhi <ul style="list-style-type: none"> <li>The Summer of the Beautiful White Horse (Prose)</li> <li>The Address (Prose)</li> </ul> </li> <li>Grammar- <ul style="list-style-type: none"> <li>Tenses</li> <li>Clauses</li> </ul> </li> <li>Writing Skills <ul style="list-style-type: none"> <li>Advertisement</li> <li>Poster Making</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Hornbill: English Reader published by National Council of Education Research and Training, New Delhi <ul style="list-style-type: none"> <li>Father to Son</li> </ul> </li> <li>Snapshots: Supplementary Reader published by National Council of Education Research and Training, New Delhi. <ul style="list-style-type: none"> <li>Mother’s Day (Play)</li> </ul> </li> <li>Grammar- <ul style="list-style-type: none"> <li>Modals</li> </ul> </li> <li>Writing Skills <ul style="list-style-type: none"> <li>Advertisement</li> <li>Debate Writing</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Hornbill: English Reader published by National Council of Education Research and Training, New Delhi <ul style="list-style-type: none"> <li>The Portrait of a Lady (Prose)</li> <li>A Photograph (Poem)</li> <li>“We’re Not Afraid to Die... if We Can All be Together</li> <li>The Laburnum Top (Poem)</li> <li>The Voice of the Rain (Poem)</li> <li>Childhood (Poem)</li> <li>Discovering Tut</li> <li>The Adventure</li> <li>Silk Road (Prose)</li> <li>Father to Son</li> </ul> </li> <li>Snapshots: Supplementary Reader published by National Council of Education Research and Training, New Delhi. <ul style="list-style-type: none"> <li>The Summer of the beautiful white horse</li> <li>The Address (Prose)</li> <li>Mother’s Day (Play)</li> <li>Birth ( Prose)</li> <li>The Tale of Melon City</li> </ul> </li> <li>Grammar- <ul style="list-style-type: none"> <li>Tenses</li> </ul> </li> </ol>

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
5. INTERNAL ASSESSMENT <ul style="list-style-type: none"> <li>● Assessment of Listening Skills - 05 marks. Assessment of Speaking Skills – 05 Marks</li> <li>● Project Work - 10 Marks</li> </ul>		<ul style="list-style-type: none"> <li>● Clauses</li> <li>● Modals</li> </ul> 4. Writing Skills <ul style="list-style-type: none"> <li>● Advertisement</li> <li>● Poster Making</li> <li>● Speech Writing</li> <li>● Debate Writing</li> </ul> 5. INTERNAL ASSESSMENT <ul style="list-style-type: none"> <li>● Assessment of Listening Skills - 05 marks. Assessment of Speaking Skills – 05 Marks</li> <li>● Project Work - 10 Marks</li> </ul>

### Physics –

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
<ul style="list-style-type: none"> <li>● Chapter–2: Units and Measurements</li> <li>● Chapter–3: Motion in a Straight Line</li> <li>● Chapter–4: Motion in a Plane</li> <li>● Chapter–5: Laws of Motion</li> <li>● Chapter–6: Work, Energy and Power</li> <li>● Chapter–7: System of Particles and Rotational Motion</li> <li>● Chapter–8: Gravitation</li> </ul>	<ul style="list-style-type: none"> <li>● Chapter–9: Mechanical Properties of Solids</li> <li>● Chapter–10: Mechanical Properties of Fluids</li> <li>● Chapter–11: Thermal Properties of Matter</li> <li>● Chapter–12: Thermodynamics</li> </ul>	<ul style="list-style-type: none"> <li>● Chapter–2: Units and Measurements</li> <li>● Chapter–3: Motion in a Straight Line</li> <li>● Chapter–4: Motion in a Plane</li> <li>● Chapter–5: Laws of Motion</li> <li>● Chapter–6: Work, Energy and Power</li> <li>● Chapter–7: System of Particles and Rotational Motion</li> <li>● Chapter–8: Gravitation</li> <li>● Chapter–9: Mechanical Properties of Solids</li> <li>● Chapter–10: Mechanical Properties of Fluids</li> <li>● Chapter–11: Thermal Properties of Matter</li> <li>● Chapter–12: Thermodynamics</li> <li>● Chapter–13: Kinetic Theory</li> <li>● Chapter–14: Oscillations</li> <li>● Chapter–15: Waves</li> </ul>



## Chemistry –

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
<ul style="list-style-type: none"> <li>Some Basic Concepts of Chemistry</li> <li>Structure of Atom</li> <li>Classification of Elements &amp; Periodicity in Properties</li> <li>Chemical Bonding &amp; Molecular Structure</li> <li>Thermodynamics</li> </ul>	<ul style="list-style-type: none"> <li>Equilibrium</li> </ul>	<ul style="list-style-type: none"> <li>Some Basic Concepts of Chemistry</li> <li>Structure of Atom</li> <li>Classification of Elements &amp; Periodicity in Properties</li> <li>Chemical Bonding &amp; Molecular Structure</li> <li>Thermodynamics</li> <li>Equilibrium</li> <li>Redox reactions</li> <li>Organic chemistry: some basic principles and techniques</li> <li>Hydrocarbons</li> </ul>

## Mathematics –

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
<ul style="list-style-type: none"> <li>Sets</li> <li>Relations &amp; Functions</li> <li>Trigonometric Functions</li> <li>Complex Numbers and Quadratic Equations</li> <li>Linear Inequalities</li> <li>Permutations and Combinations</li> <li>Binomial Theorem</li> <li>Sequence and Series</li> </ul>	<ul style="list-style-type: none"> <li>Straight Lines</li> </ul>	<ul style="list-style-type: none"> <li>Sets</li> <li>Relations &amp; Functions</li> <li>Trigonometric Functions</li> <li>Complex Numbers and Quadratic Equations</li> <li>Linear Inequalities</li> <li>Permutations and Combinations</li> <li>Binomial Theorem</li> <li>Sequence and Series</li> <li>Straight Lines</li> <li>Conic Sections</li> <li>Introduction to Three-dimensional Geometry</li> <li>Limits and Derivatives</li> <li>Statistics</li> <li>Probability</li> </ul>

## Biology –

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
<ul style="list-style-type: none"> <li>● Chapter – 1 The Living World</li> <li>● Chapter – 2 Biological Classification</li> <li>● Chapter – 3 Plant Kingdom</li> <li>● Chapter – 4 Animal Kingdom</li> <li>● Chapter – 5 Morphology of Flowering Plants</li> <li>● Chapter – 6 Anatomy of Flowering Plants</li> <li>● Chapter – 7 Structural Organization in Animals</li> <li>● Chapter – 8 Cell- The Unit of Life</li> </ul>	<ul style="list-style-type: none"> <li>● Chapter – 9 Biomolecules</li> <li>● Chapter – 10 Cell Cycle and Cell Division</li> </ul>	<ul style="list-style-type: none"> <li>● Chapter – 1 - The Living World</li> <li>● Chapter – 2 Biological Classification</li> <li>● Chapter – 3 - Plant Kingdom</li> <li>● Chapter – 4 - Animal Kingdom</li> <li>● Chapter – 5 Morphology of Flowering Plants</li> <li>● Chapter – 6 Anatomy of Flowering Plants</li> <li>● Chapter – 7 Structural Organisation in Animals</li> <li>● Chapter – 8 - Cell- The Unit of Life</li> <li>● Chapter – 9 - Biomolecules</li> <li>● Chapter – 10 Cell Cycle and Cell Division</li> <li>● Chapter – 11 Photosynthesis in Higher Plants</li> <li>● Chapter – 12 - Respiration in Plants</li> <li>● Chapter – 13 Plant Growth and Development</li> <li>● Chapter – 14 Breathing and Exchange of Gases</li> <li>● Chapter – 15 Body Fluids and Circulation</li> <li>● Chapter – 16 Excretory Products and their Elimination</li> <li>● Chapter – 17 Locomotion and Movement</li> <li>● Chapter – 18 Neural Control and Coordination</li> <li>● Chapter – 19 Chemical Coordination and Integration</li> </ul>

## Computer Science –

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
<ul style="list-style-type: none"> <li>● Computer overview</li> <li>● Data representation</li> <li>● Boolean logic</li> <li>● Introduction to problem solving</li> <li>● Getting started with python</li> <li>● Python fundamentals</li> <li>● Data handling</li> </ul>	<ul style="list-style-type: none"> <li>● Flow of control</li> <li>● String manipulation</li> </ul>	<ul style="list-style-type: none"> <li>● Data representation</li> <li>● Boolean logic</li> <li>● Python fundamentals</li> <li>● Data handling</li> <li>● Flow of control</li> <li>● String manipulation</li> <li>● List manipulation</li> <li>● Working with Tuple</li> <li>● Dictionaries</li> <li>● Introduction to Python Modules</li> <li>● Society, law &amp; Ethics</li> </ul>

## Physical Education

Mid Term/Half Yearly	Periodic Assessment - 2	Annual
<ul style="list-style-type: none"> <li>● Changing Trends and Career in Physical Education.</li> <li>● Olympic Value Education</li> <li>● Yoga</li> <li>● Physical Education and Sports for Children with Special Needs.</li> <li>● Physical Fitness, Wellness, and lifestyle.</li> <li>● Test, Measurement and Evaluation</li> </ul>	<ul style="list-style-type: none"> <li>● Fundamentals of Anatomy, Physiology in Sports.</li> <li>● Fundamentals of Kinesiology and Biomechanics in Sports.</li> </ul>	<ul style="list-style-type: none"> <li>● Changing Trends and Career in Physical Education.</li> <li>● Olympic Value Education</li> <li>● Yoga</li> <li>● Physical Education and Sports for Children with Special Needs.</li> <li>● Physical Fitness, Wellness, and lifestyle.</li> <li>● Test, Measurement and Evaluation</li> <li>● Fundamentals of Anatomy, Physiology in Sports.</li> <li>● Fundamentals of Kinesiology and Biomechanics in Sports.</li> <li>● Psychology and Sports</li> <li>● Training and doping in Sports.</li> </ul>

# Blueprint & Learning Outcomes | Session 2024 - 25

## Subject - English

### Prescribe Books:-

1. Text Book for Class XI Part – I: **(HORNBILL)** NCERT
2. Text Book for Class XI Part – II: **(SNAPSHOTS)** NCERT

### (A) Blueprint

#### (i) Mid Term/Half Yearly Examination –

Chapters	Mark Distribution				
	1 Mark	3 Marks	5 Marks	6 Marks	Total
<b>Reading Skills:-</b> The passage may be factual, descriptive or literary.	10	--	--	--	10
Case-based factual passage with verbal/visual inputs like statistical data, charts etc.	8	--	--	--	8
Note Making	--	--	1	--	5
Summarization	--	1	--	--	3
<b>Grammar and Creative Writing Skills</b> Questions on Gap filling (Tenses, Clauses)	7	--	--	--	7
Questions on re-ordering/transformation of sentences	6	--	--	--	6
Classified Advertisements	--	--	1(OR)	--	5
Poster	--	--	1(OR)	--	5
<b>Literature Text Book and Supplementary Reading Text:</b> One Poetry extract out of two (Hornbill)	3 (OR)	--	--	--	3
One Prose extract out of two(Hornbill)	3 (OR)	--	--	--	3
One Prose extract out of two(Snapshots)	4 (OR)	--	--	--	4
Two Short answer type questions (one from Prose and one from Poetry, from the book Hornbill), out of four, to be answered in 40-50 words. Questions should elicit inferential responses through critical thinking.	--	2	--	--	6
One Short answer type question, from the book Snapshots, to be answered in 40- 50 words. Questions should elicit inferential responses through critical thinking. One out of two questions to be done.	--	1	--	--	3



Chapters	Mark Distribution				
	1 Mark	3 Marks	5 Marks	6 Marks	Total
One Long answer type question, from Prose/Poetry of Hornbill, 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 the student. Any one out of two questions to be done.	--	--	--	1(OR)	6
One Long answer type question, based on the chapters from the book Snapshots, to be answered in 120-150 words, to assess global comprehension and extrapolation beyond the text. Questions to provide analytical and evaluative responses, using incidents, events, themes, as reference points. Any one out of two questions to be done.	--	--	--	1(OR)	6
<b>Internal Assessment</b>					
Listening-5 Marks	--	--	1	--	5
Speaking-5 Marks	--	--	1	--	5
Project Work-10 Marks	--	--	2	--	10
<b>Total</b>	<b>41 (1)</b>	<b>4 (3)</b>	<b>7 (5)</b>	<b>2 (6)</b>	<b>100</b>

**(ii) Periodic Assessment 2 –**

Chapters	Mark Distribution				
	1 Mark	2 Marks	4 Marks	6 Marks	Total
<b>Grammar:</b> Do as directed (Modals)	4	--	--	--	4
<b>Creative Writing Skills:</b> Short writing task – Classified Advertisements,	--	--	1	--	4
Long writing task – Debate Writing	--	--	--	1	6
<b>Literature Text Book and Supplementary Reading Text:</b> Short answer type questions out of four (from the book Hornbill& Snapshots)	--	3	--	--	6
<b>Total</b>	<b>4 (1)</b>	<b>3 (2)</b>	<b>1 (4)</b>	<b>1 (6)</b>	<b>20</b>

**(iii) Annual Examination –**

Chapters	Mark Distribution				
	1 Mark	3 Marks	5 Marks	6 Marks	Total
<b>Reading Skills:-</b> The passage may be factual, descriptive or literary.	10	--	--	--	10
Case-based factual passage with verbal/visual inputs like statistical data, charts etc.	8	--	--	--	8
Note Making	--	--	1	--	5

Chapters	Mark Distribution				
	1 Mark	3 Marks	5 Marks	6 Marks	Total
Summarization	--	1	--	--	3
<b>Grammar and Creative Writing Skills</b>					
Questions on Gap filling (Tenses, Clauses) (4 out of 5)	4	--	--	--	4
Questions on re-ordering/transformation of sentences (3 out of 4)	3	--	--	--	3
Classified Advertisements	--	1(OR)	--	--	3
Poster	--	1(OR)	--	--	3
Speech	--	--	1(OR)	--	5
Debate	--	--	1(OR)	--	5
<b>Literature Text Book and Supplementary Reading Text:</b>					
One Poetry extract out of two (Hornbill)	3 (OR)	--	--	--	3
One Prose extract out of two(Hornbill)	3 (OR)	--	--	--	3
One Prose extract out of two(Snapshots)	4 (OR)	--	--	--	4
Two Short answer type questions (one from Prose and one from Poetry, from the book Hornbill), out of four, to be answered in 40-50 words. Questions should elicit inferential responses through critical thinking.	--	2	--	--	6
One Short answer type question, from the book Snapshots, to be answered in 40- 50 words. Questions should elicit inferential responses through critical thinking. One out of two questions to be done.	--	1	--	--	3
One Long answer type question, from Prose/Poetry of Hornbill, 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 the student. Any one out of two questions to be done.	--	--	--	1(OR)	6
One Long answer type question, based on the chapters from the book Snapshots, to be answered in 120-150 words, to assess global comprehension and extrapolation beyond the text. Questions to provide analytical and evaluative responses, using incidents, events, themes, as reference points. Any one out of two questions to be done.	--	--	--	1(OR)	6

Chapters	Mark Distribution				
	1 Mark	3 Marks	5 Marks	6 Marks	Total
<b>Internal Assessment</b>					
Listening-5 Marks	--	--	1	--	5
Speaking-5 Marks	--	--	1	--	5
Project Work-10 Marks	--	--	2	--	10
<b>Total</b>	<b>35 (1)</b>	<b>6 (3)</b>	<b>7 (5)</b>	<b>2 (6)</b>	<b>100</b>

### (B) Learning Outcomes

Name of the Chapter	Learning Outcomes
The Portrait Of A Lady (Hornbill)	<p>The students will be able :-</p> <ul style="list-style-type: none"> <li>● To develop an independent attitude in thought and action.</li> <li>● To accept and manage the situations with patience and tolerance.</li> <li>● To know the expressions used in the lesson and their usage.</li> <li>● To know the sacrifices and support given by the grandparents in the family.</li> </ul>
A Photograph (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Understand the importance of human relationship.</li> <li>● Understand the nostalgic experiences of the past.</li> <li>● Understand that the moments of life have been permanently etched in the poet's mind with a feeling of eternal loss.</li> <li>● Understand that death is imminent and human life is mortal.</li> </ul>
The Summer Of The Beauyiful White Horse (Snapshots)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Enjoy a humorous piece of prose.</li> <li>● Inculcate values like honesty, trust, and responsibility.</li> <li>● Deal with the temperament of different family members to create a bond.</li> <li>● Be generous towards animals.</li> </ul>
Determiners	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Know that a determiner appears before a noun (and its adjectives) to help us identify which person or thing the sentence is about, or how much or how many of them there are</li> <li>● Identify determiners within sentences</li> <li>● Use determiners accurately within sentences</li> </ul>

Name of the Chapter	Learning Outcomes
Notemaking And Summarizing	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Guide and motivate students to express and write effectively.</li> <li>● Develop knowledge and purpose of writing</li> <li>● Develop knowledge and purpose to design a Poster.</li> <li>● Awareness of the form, content and process of writing.</li> <li>● Able to retain a data and information.</li> <li>● Organize ideas on a particular subject.</li> <li>● Practice to enhance the skills.</li> <li>● Create social awareness.</li> <li>● Design the poster with appropriate expressions and vocabulary.</li> </ul>
We are not afraid to die...(hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Learn the parts of ship and different terms/words related to voyage.</li> <li>● Realise that hazardous experience teaches one to face the adverse circumstances with courage.</li> <li>● Understand that presence of mind along with the practical knowledge is important to take instant decisions.</li> <li>● Know that determination and self-confidence can conquer adverse circumstances.</li> <li>● Inculcate values of sharing, caring and responsibility.</li> </ul>
The Laburnum Top(Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Know about the poet and his contribution.</li> <li>● Understand various sound words mentioned in the poem.</li> <li>● Identify the rhyme scheme.</li> <li>● Enjoy the beauty of nature.</li> <li>● Face the hardships in life.</li> <li>● Understand love and sacrifice of the mother for children.</li> </ul>
The Address (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Realise and analyse the situations and take appropriate decisions.</li> <li>● Be optimistic in difficult situations.</li> <li>● Appreciate the theme and the message conveyed.</li> <li>● Understand that war destroys life and peace restores everything.</li> <li>● Understand the family bonding and relations.</li> <li>● Show sympathetic attitude to war victims or the sufferers.</li> <li>● To forget the past and move ahead in life.</li> </ul>
Tenses	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Identify the different action words.</li> <li>● Distinguish between verb tenses.</li> </ul>



Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>● Relate forms of actions to the time of happening.</li> <li>● Choose correct form of verb as per the time of happening of the event.</li> <li>● Use different forms of verbs according to time.</li> </ul>
The Voice Of The Rain (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Inculcate values like care and concern to save the environment.</li> <li>● Develop imaginative and analytical skills.</li> <li>● Realise the importance of saving natural resources.</li> <li>● Understand the process of sustainable development.</li> <li>● Appreciate the poetic beauty and learn the poetic devices.</li> </ul>
Clauses	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Identify the independent and dependent clauses from each of the given sentences.</li> <li>● List the features of dependent and independent clauses.</li> <li>● Identify the functions of clauses in specific sentences.</li> <li>● Examine the placement of clauses in a sentence pattern.</li> </ul>
Notice Writing	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Express and write effectively. - Awareness of the form, content and process of writing.</li> <li>● Get knowledge of the purpose and importance of writing a notice.</li> <li>● Write in formal tone, to be precise and to the point.</li> <li>● Write with appropriate vocabulary and expressions.</li> <li>● Express their ideas by writing the skill.</li> </ul>
Classified Advertisement	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Develop knowledge and purpose of writing Advertisements.</li> <li>● Develop awareness of the form, content and process of writing.</li> <li>● Retain the data and information.</li> <li>● Organize ideas on a particular subject.</li> <li>● Practice to enhance the skill.</li> <li>● Create social awareness.</li> <li>● Understand and recollect the format of advertisements.</li> <li>● Write with appropriate expressions and vocabulary.</li> <li>● Link ideas on various topics on advertisement.</li> <li>● Use appropriate expressions while writing the skills.</li> </ul>
Childhood (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Accept differences, understand people.</li> <li>● Value childhood and freedom.</li> <li>● Develop individuality and sense of freedom.</li> <li>● Treasure innocence of childhood</li> <li>● Understand individuality, rationalism and hypocrisy</li> <li>● To think rationally and show maturity.</li> </ul>

Name of the Chapter	Learning Outcomes
Discovering Tut (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Understand the meaning and usage of phrases like resurrection, circumvented, computed Tomography, scudded across etc</li> <li>● Understand the advancement in technology.</li> <li>● Know about Egyptian belief of mummification.</li> <li>● Have the historical knowledge about King Tut's family line.</li> <li>● Know about pyramids and their history</li> <li>● Know how archaeology has changed in the intervening decades.</li> </ul>
Mother's Day (Snapshots)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Imbibe values like care and concern, empathy, compassion, respect for elders, belongingness and tolerance.</li> <li>● Understand the struggles and sacrifices of parents and to draw inspiration from them.</li> <li>● Accept the members of the family without complaining.</li> <li>● Realise the worth of sacrifice and struggles of parents.</li> <li>● To know that mothers have equal rights to enjoy their lives and deserve acknowledgement and appreciation.</li> </ul>
Poster Writing	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Guide and motivate students to express and write effectively.</li> <li>● Develop knowledge and purpose to design a Poster.</li> <li>● Awareness of the form, content and process of writing.</li> <li>● Able to retain a data and information.</li> <li>● Organize ideas on a particular subject.</li> <li>● Practice to enhance the skills.</li> <li>● Create social awareness.</li> <li>● Design the poster with appropriate expressions and vocabulary.</li> </ul>
Father To Son (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Understand consequences of lack of communication and cold indifferences in a family.</li> <li>● Understanding the bonding with family members.</li> <li>● Resolve conflicts with patience.</li> <li>● Handle criticism and to take initiative for making up the loss.</li> <li>● Communicate with family members and share joys and sorrows.</li> <li>● To look into their own behaviour and mend their ways to develop a healthy relationships.</li> </ul>
The Adventure (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Know the blend of physics and history to feel in the imaginary world.</li> <li>● Know the impact of Time Travel.</li> <li>● Feel the difference between reality and fantasy.</li> <li>● Know the value of science fiction.</li> </ul>

Name of the Chapter	Learning Outcomes
Speech Writing	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Guide and motivate students to express and write effectively.</li> <li>● Develop knowledge and purpose of writing the skills.</li> <li>● Awareness of the form, content and process of writing.</li> <li>● Develop knowledge and purpose of writing an article and speech.</li> <li>● Able to retain a data and information.</li> <li>● Organize ideas on a particular subject.</li> <li>● Practice to enhance the skills.</li> <li>● Create social awareness.</li> <li>● Understand and recollect the formats</li> <li>● Write with appropriate expressions and vocabulary.</li> <li>● Link ideas and write speech and debate.</li> <li>● Use proverbs, phrasal words and idiomatic expressions while writing the skills.</li> </ul>
Silk Road (Hornbill)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Understand as to how to face and deal challenging situations and come up with an appropriate solution for the same.</li> <li>● Understand that the narrator's bitter experience of Hor came as a stark contrast to accounts he had read of earlier travelers.</li> <li>● Analyse the trip to be adventurous.</li> <li>● Praise and appreciate the dull but small town. realise that people could work as a team to be successful.</li> <li>● Understand that the author thought that his positive thinking strategy will work.</li> </ul>
Letter To School Authorities	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Know the Format, Content and Expression of letter writing.</li> <li>● Know the main theme to communicate in the letter.</li> <li>● Apply the correct grammatical knowledge.</li> <li>● Learn the apt vocabulary and phrases to enrich the letter.</li> <li>● Apply the proper style and arrangement of tone of language.</li> </ul>
Birth (Snapshots)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Understand the responsibilities of a doctor.</li> <li>● Value commitment, care and concern.</li> <li>● Be positive and confident in adverse situations. 4. Never lose hope.</li> <li>● Stress more on practical knowledge instead of theoretical.</li> <li>● Be faithful to one's profession.</li> </ul>
The Tale Of Melon City (Snapshots)	<p>The students will be able to :-</p> <ul style="list-style-type: none"> <li>● Be aware of different situations and dealing them well.</li> <li>● Realise that peace and liberty are the two strong factors for a state to flourish.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>• Able to understand that the rulers of the state should be judicious and sensitive to the needs of the people.</li> <li>• To understand that the ruler of the state must understand the problems and needs of the people. 5. Be able to understand that the simplest way to maintain peace and liberty in a state is by following the principles of laissez-faire.</li> </ul>

## Subject – Physics

### Prescribe Books:-

1. Text Book for Class XI Part – I: NCERT
2. Text Book for Class XI Part – II: NCERT
3. Reference New Simplified Physics Part – I, Dhanpat Rai
4. Reference New Simplified Physics Part – II, Dhanpat Rai

### (A) Blueprint

#### (i) Mid Term/Half Yearly Examination –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Chapter–2: Units and Measurements	2	1	--	---	--	4
Chapter–3: Motion in a Straight Line	3	--	1	1	--	10
Chapter–4: Motion in a Plane	2	1	1	---	1(OR)	12
Chapter–5: Laws of Motion	3	--	2	---	1 (OR)	14
Chapter–6: Work, Energy and Power	2	1	1	---	1(OR)	12
Chapter–7: System of Particles and Rotational Motion	2	1(OR)	1	1	--	11
Chapter–8: Gravitation	2	1	1(OR)	--	--	7
<b>Total</b>	<b>16 (1)</b>	<b>5 (2)</b>	<b>7 (3)</b>	<b>2 (4)</b>	<b>3 (5)</b>	<b>70</b>

**Internal choices must be given from the same unit only. Case-Based questions should contain one internal choice within itself.**

#### (ii) Periodic Assessment 2 –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Chapter–9: Mechanical Properties of Solids	2	--	--	--	--	2
Chapter–10: Mechanical Properties of Fluids	1	1(OR)	--	--	1(OR)	8
Chapter–11: Thermal Properties of Matter	1	1	1	--	--	6
Chapter–12: Thermodynamics	1	--	1(OR)	--	--	4
<b>Total</b>	<b>5 (1)</b>	<b>2 (2)</b>	<b>2 (3)</b>	<b>--</b>	<b>1 (5)</b>	<b>20</b>



**Internal choices must be given from the same unit only**

**(iii) Annual Examination –**

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Chapter–2: Units and Measurements	1	--	1	--	--	4
Chapter–3: Motion in a Straight Line	1	1	1	--	--	6
Chapter–4: Motion in a Plane	1	1	1 (OR)	--	--	6
Chapter–5: Laws of Motion	2	--	--	--	1(OR)	7
Chapter–6: Work, Energy and Power	1	--	--	1	--	5
Chapter–7: System of Particles and Rotational Motion	2	1 (OR)	1	--	--	7
Chapter–8: Gravitation	2	--	1	--	--	5
Chapter–9: Mechanical Properties of Solids	--	1	--	--	--	2
Chapter–10: Mechanical Properties of Fluids	1	--	--	--	1(OR)	6
Chapter–11: Thermal Properties of Matter	--	--	1	--	--	3
Chapter–12: Thermodynamics	2	--	--	1	--	6
Chapter–13: Kinetic Theory	1	1	--	--	--	3
Chapter–14: Oscillations	1	--	1	--	--	4
Chapter–15: Waves	1	--	--	--	1(OR)	6
<b>Total</b>	<b>16 (1)</b>	<b>5 (2)</b>	<b>7 (3)</b>	<b>2 (4)</b>	<b>3 (5)</b>	<b>70</b>

**Internal choices must be given from the same unit only. Case-Based questions should contain one internal choice within itself.**

**(B) Learning Outcomes**

Name of the Chapter	Learning Outcomes
Units and Measurements	Students will able to <ul style="list-style-type: none"> <li>● Learn about different systems of units used in physics, such as SI units, CGS units, and FPS units.</li> <li>● Understand the conversions between different units and the importance of choosing appropriate units.</li> <li>● Apply the principles of dimensional analysis to derive relationships between physical quantities.</li> <li>● Learn to use significant figures for accurate measurement and calculations.</li> </ul>
Motion in a Straight Line	<ul style="list-style-type: none"> <li>● Study the kinematics of objects moving in a straight line.</li> <li>● Understand the concepts of displacement, velocity, and acceleration and their mathematical representations.</li> <li>● Analyse uniformly accelerated motion using graphs and solve problems involving motion under constant acceleration.</li> </ul>

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Name of the Chapter	Learning Outcomes
Motion in a Plane	<ul style="list-style-type: none"> <li>● Understand the concepts of vectors, vector addition, subtraction and product.</li> <li>● Explore the motion of objects in a two-dimensional plane.</li> <li>● Study projectile motion and analyse the motion of objects launched at an angle.</li> <li>● Learn about circular motion and the concepts of centripetal and centrifugal forces.</li> </ul>
Laws of Motion	<ul style="list-style-type: none"> <li>● Understand Newton's laws of motion and their applications.</li> <li>● Study the concepts of force, mass, and acceleration.</li> <li>● Learn about different types of forces, such as gravitational, frictional, normal, and tension forces.</li> <li>● Analyze the principles of equilibrium and solve problems related to static and dynamic equilibrium.</li> </ul>
Work, Energy, and Power	<ul style="list-style-type: none"> <li>● Explore the concepts of work, energy, and power.</li> <li>● Understand the principle of conservation of mechanical energy and its applications.</li> <li>● Learn about different forms of energy, such as kinetic energy, potential energy, and elastic potential energy.</li> <li>● Solve problems involving work-energy theorem, power, and efficiency.</li> <li>● Understand the concept of collision in one dimension and two dimension.</li> </ul>
System of Particles and Rotational Motion	<ul style="list-style-type: none"> <li>● Study the motion of systems of particles and the concept of centre of mass.</li> <li>● Understand the principles of linear momentum and its conservation.</li> <li>● Analyze rotational motion, moment of inertia, and angular momentum.</li> <li>● Understanding the basics of equilibrium of rigid body and its motion</li> <li>● Apply the laws of conservation of linear and angular momentum to solve problems.</li> </ul>
Gravitation	<ul style="list-style-type: none"> <li>● Study the motion of planets and satellites and learn about Kepler's laws.</li> <li>● Learn about the universal law of gravitation and its applications.</li> <li>● Understand the concept of gravitational force and the factors affecting its magnitude.</li> <li>● Explore the concept of gravitational potential energy and escape velocity.</li> </ul>
Mechanical Properties of Solids	<ul style="list-style-type: none"> <li>● Learn about the mechanical properties of solids, such as elasticity, stress, and strain.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>● Understand Hooke's law and the modulus of elasticity (Young's modulus, bulk modulus, and shear modulus).</li> <li>● Study the behavior of solids under different types of stress and the concept of elastic potential energy.</li> </ul>
Mechanical Properties of Fluids	<ul style="list-style-type: none"> <li>● Explore the behavior of fluids and the concept of pressure.</li> <li>● Understand Pascal's law and Archimedes' principle.</li> <li>● Learn about the equations of fluid statics and the determination of pressure in fluids.</li> <li>● Study the concept of surface tension, capillary action, and its applications.</li> <li>● Explore Bernoulli's principle and its application in day to day life.</li> </ul>
Thermal Properties of Matter	<ul style="list-style-type: none"> <li>● Study the concept of heat and temperature and different temperature scales.</li> <li>● Understand the thermal expansion of solids, liquids, and gases and its applications.</li> <li>● Explore specific heat and latent heat, and understand the heat transfer mechanisms of conduction, convection, and radiation.</li> </ul>
Thermodynamics	<ul style="list-style-type: none"> <li>● Understand the concept of thermodynamic equilibrium and concept of temperature, Zeroth law.</li> <li>● Understand the concept of first law of thermodynamics and the second law.</li> <li>● Study the laws of thermodynamics processes and cycles, such as isothermal, adiabatic, and cyclic processes</li> </ul>
Kinetic Theory	<ul style="list-style-type: none"> <li>● Understand the concept of equation of state for ideal gas and workdone.</li> <li>● Explore the kinetic theory of gases and its assumptions.</li> <li>● Understand the behaviour of gases under different conditions, such as pressure, temperature, and volume.</li> <li>● Study concepts such as the ideal gas equation, mean free path, and Boltzmann's constant.</li> <li>● Learn about the kinetic interpretation of temperature and pressure.</li> </ul>
Oscillations	<ul style="list-style-type: none"> <li>● Learn about simple harmonic motion and its mathematical representation.</li> <li>● Explore the relationship between simple harmonic motion and circular motion.</li> <li>● Understand the concepts of displacement, velocity, acceleration, and energy in oscillatory motion.</li> </ul>
Waves	<ul style="list-style-type: none"> <li>● Explore the properties and characteristics of waves, such as amplitude, wavelength, frequency, and velocity.</li> <li>● Learn about the types of waves, including longitudinal and transverse waves.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>Understand the principles of superposition of waves.</li> <li>Understand the applications of standing waves and its formation in a string and organ pipe.</li> <li>Understand the phenomenon of Beats.</li> </ul>

## Subject – Chemistry

### Prescribe Books:-

- Text Book for Class XI: Pradeep's New course Chemistry, Pradeep publications India.
- Text Book for Class XI: Companion Chemistry, S. Dinesh and co. Sister concern of S. Vinesh and Co.
- Text Book for Class XI: New Era Chemistry (G.R. Bathla Publications)

### (A) Blueprint

#### (i) Mid Term/Half Yearly Examination –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Some Basic Concepts of Chemistry	1	2	3	--	--	14
Structure of Atom	4	2	1	--	1	16
Classification of Elements & Periodicity in Properties	4	1	--	1	--	10
Chemical Bonding & Molecular Structure	4	--	1	1	1	16
Thermodynamics	3	--	2	--	1	14
<b>Total</b>	<b>16 (1)</b>	<b>5 (2)</b>	<b>7 (3)</b>	<b>2 (4)</b>	<b>3 (5)</b>	<b>70</b>

#### (ii) Periodic Assessment 2 –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Equilibrium	5	3	3	--	--	20
<b>Total</b>	<b>5 (1)</b>	<b>3 (2)</b>	<b>3 (3)</b>	<b>--</b>	<b>--</b>	<b>20</b>

#### (iii) Annual Examination –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Some Basic Concepts of Chemistry	2	1	1	--	--	7
Structure of Atom	2	--	1	1	--	9
Classification of Elements & Periodicity in Properties	1	1	1	--	--	6
Chemical Bonding & Molecular Structure	--	1	--	--	1	7
Thermodynamics	2	--	1	1	--	9
Equilibrium	2	--	--	--	1	7

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Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Redox reactions	2	1	--	--	--	4
Organic chemistry: some basic principles and techniques	3	1	2	--	--	11
Hydrocarbons	2	--	1	--	1	10
<b>Total</b>	<b>16 (1)</b>	<b>5 (2)</b>	<b>7 (3)</b>	<b>2 (4)</b>	<b>3 (5)</b>	<b>70</b>

### (B) Learning Outcomes

Name of the Chapter	Learning Outcomes
Some basic concepts of chemistry	<ul style="list-style-type: none"> <li>Understand and appreciate the role of chemistry in different spheres of life.</li> <li>Explain the characteristics of three states of matter.</li> <li>Classify different substances of three states of matter.</li> <li>Explain various laws of chemical combination.</li> <li>Appreciate the significance of atomic mass, average atomic mass, and molecular mass, Formula mass.</li> <li>Describe the terms- moles and molar mass.</li> <li>Calculate the mass percentage of different elements constituting a compound.</li> <li>Determine the empirical formula and molecular formula for a compound from the given experimental data.</li> <li>Perform the stoichiometric calculation.</li> </ul>
Structure of Atom	<ul style="list-style-type: none"> <li>Describe Thomson, Rutherford, And Bohr atomic models.</li> <li>Understand the nature of electromagnetic radiation and Planck's quantum theory.</li> <li>Understand the important features of the quantum mechanical model of atoms.</li> <li>State the de Broglie relation and Heisenberg uncertainty principle.</li> <li>Define an atomic orbital in terms of quantum numbers.</li> <li>State the Aufbau principle, Paul's exclusion principle, and Hund's rule of maximum multiplicity.</li> <li>Write the electronic configuration of atoms.</li> </ul>
Classification of Elements And Periodicity in properties	<ul style="list-style-type: none"> <li>Understand the period law.</li> <li>Understand the significance of atomic number and electronic configuration based on periodic classification.</li> <li>Classify the elements into s, p, d, f-blocks and learn their main characteristics.</li> <li>Name the elements with <math>Z &gt; 100</math> according to IUPAC nomenclature.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>● Recognize the periodic trends in the physical and chemical properties of elements.</li> <li>● Use scientific vocabulary appropriately to communicate ideas related to certain important properties of atoms e.g.- atomic/ionic radii, ionization enthalpy, electron gain enthalpy, electro negativity, and valence of elements.</li> </ul>
Chemical bonding	<ul style="list-style-type: none"> <li>● Understand Kossel-Lewis's approach to chemical bonding.</li> <li>● Explain the octet rule and its limitations, and draw Lewis structures of simple molecules.</li> <li>● Explain the formation of different types of bonds.</li> <li>● Describe the VSEPR theory and predict the geometry of simple molecules.</li> <li>● Explain the valence bond approach for the formation of covalent bonds.</li> <li>● Predict the directional properties of covalent bonds.</li> <li>● Explain the different types of hybridization involving s, p, and d-orbitals and draw shapes of simple covalent molecules.</li> <li>● Describe the molecular orbital theory of homonuclear diatomic molecules.</li> <li>● Explain the concept of hydrogen bonds.</li> </ul>
Chemical thermodynamics	<ul style="list-style-type: none"> <li>● Explain the terms- system, and surroundings.</li> <li>● Discriminate between close, open, and isolated systems.</li> <li>● Explain internal energy, work, and heat.</li> <li>● State the first law of thermodynamics and express it mathematically.</li> <li>● Calculate energy changes as work and heat contributions in chemical systems.</li> <li>● Explain state function U, H.</li> <li>● Correlate <math>\Delta U</math> and <math>\Delta H</math>.</li> <li>● Define standard states for <math>\Delta H</math>.</li> <li>● Calculate enthalpy changes for various types of reactions.</li> <li>● State and apply Hess's law of constant heat summation.</li> <li>● Differentiate between extensive and intensive properties.</li> <li>● Define spontaneous and thermodynamics state functions and apply them for spontaneity.</li> <li>● Explain entropy as a thermodynamic state function and apply it for spontaneity.</li> <li>● Explain Gibbs energy change (<math>\Delta G</math>).</li> <li>● Establish the relationship between <math>\Delta G</math> and spontaneity, <math>\Delta G</math> and equilibrium constant.</li> </ul>



Name of the Chapter	Learning Outcomes
Equilibrium	<ul style="list-style-type: none"> <li>● Identify the Dynamic nature of equilibrium involved in physical and chemical processes.</li> <li>● State the law equilibrium.</li> <li>● Explain the characteristics of equilibria involved in physical and chemical processes.</li> <li>● Write an expression for the equilibrium constant.</li> <li>● Establish a relationship between <math>K_p</math> and <math>K_c</math>.</li> <li>● Explain various factors that affect the equilibrium of a reaction</li> <li>● Understand physical equilibrium.</li> <li>● Classify acids and bases as weak or strong in terms of their ionization constant.</li> <li>● Explain the dependence of the degree of ionization on the concentration of electrolyte and that of the common ion.</li> <li>● Describe the PH Scale For representing hydrogen ion concentration.</li> <li>● Explain the ionization of water and its dual role as acid and base.</li> <li>● Describe ionic product (<math>K_w</math>) and <math>pK_w</math> for water.</li> <li>● Appreciate the use of buffer solutions.</li> <li>● Classify substances as acids or bases according to Arrhenius, Bronsted-Lowry, and Lewis concepts.</li> </ul>
Redox reaction	<ul style="list-style-type: none"> <li>● Identify redox as a class of reactions in which oxidation and reduction reactions occur simultaneously.</li> <li>● Define the terms oxidation, reduction, oxidant (oxidizing agent), and reluctant (reducing agent).</li> <li>● Explain the mechanism of redox reactions by electron transfer process.</li> <li>● Use the concept of oxidation number to identify oxidants and reluctant in a reaction.</li> <li>● Classify redox reactions into combination (synthesis), decomposition, displacement, and disproportionate reactions.</li> <li>● Suggest a comparative order among various reluctant and oxidants.</li> <li>● Balance chemical equations using (i) Oxidation number (ii) ion-electron method.</li> </ul>
Basic concepts of organic chemistry	<ul style="list-style-type: none"> <li>● Understand the reasons for the tetravalence of carbon and the shapes of organic molecules.</li> <li>● Write the structure of organic molecules in various ways.</li> <li>● Classify the organic compounds.</li> <li>● Name the compound according to the IUPAC system of nomenclature and also derive their structures from the given names.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>Recognize and write structures of isomers of alkanes, alkenes, alkynes, and aromatic hydrocarbons.</li> <li>Understand the concept of molecular and structural formulas.</li> <li>Understand the concept of the organic reaction mechanism.</li> <li>Explain the influence of electronic displacements on the structure and reactivity of organic compounds.</li> <li>Recognize the types of organic reactions.</li> <li>Predict the formation of the addition products of unsymmetrical alkenes and alkynes based on electronic mechanism.</li> <li>Understand the mechanism of electrophilic substitution reactions of benzene.</li> </ul>
Hydrocarbons	<ul style="list-style-type: none"> <li>Learn about various methods of preparation of hydrocarbons.</li> <li>Distinguish between alkanes, alkenes, alkynes, and aromatic hydrocarbons based on physical and chemical properties.</li> <li>Appreciate the role of hydrocarbons as sources of energy and for other industrial applications.</li> <li>Comprehend the structure of benzene, and explain aromaticity.</li> <li>Predict the directive influence of substituent's in the monosubstituted benzene ring.</li> <li>Learn about carcinogenicity and toxicity.</li> </ul>

## Subject – Mathematics

### Prescribe Books:-

1. Text Book for Class XI: NCERT
2. Exemplar Problems for Class XI: NCERT
3. R.D.Sharma Class XI

### (A) Blueprint

#### (i) Mid Term/Half Yearly Examination –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Sets	3	1	1	1		12
Relations & Functions	2	1	1		1	12
Trigonometric Functions	3		1		1	11
Complex Numbers and Quadratic Equations	3	1			1	10
Linear Inequalities	2		1			5
Permutations and Combinations	3	1		1		9

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Binomial Theorem	2		1		1	10
Sequence and Series	2	1	1	1		11
<b>Total</b>	<b>20 (1)</b>	<b>5 (2)</b>	<b>6 (3)</b>	<b>3 (4)</b>	<b>4 (5)</b>	<b>80</b>

**(ii) Periodic Assessment 2 –**

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Straight Line	5	2	2	--	1	20
<b>Total</b>	<b>5 (1)</b>	<b>2 (2)</b>	<b>2 (3)</b>	<b>--</b>	<b>1 (5)</b>	<b>20</b>

**(iii) Annual Examination –**

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Sets	2	1	1	--	--	7
Relations & Functions	3	--	--	1	--	7
Trigonometric Functions	2	1	--	--	1	9
Complex Numbers and Quadratic Equations	2	---	1	--	--	5
Linear Inequalities	1	--	1	--	--	4
Permutations and Combinations	1	--	--	1	--	5
Binomial Theorem	1	--	--	--	1	6
Sequence and Series	2	--	1	--	--	5
Straight Lines	1	1	1	--	--	6
Conic Sections	1	--	1	--	--	4
Introduction to Three-dimensional Geometry	--	1	--	--	--	2
Limits and Derivatives	3	--	--	--	1	8
Statistics	1	--	--	--	1	6
Probability	--	1	--	1	--	6
<b>Total</b>	<b>20 (1)</b>	<b>5 (2)</b>	<b>6 (3)</b>	<b>3 (4)</b>	<b>4 (5)</b>	<b>80</b>

**(B) Learning Outcomes**

Name of the Chapter	Learning Outcomes
Chapter – 01 (Sets)	<ul style="list-style-type: none"> <li>• Students will be able to learn about sets and their representations.</li> <li>• Students will be able to learn about different number sets.</li> <li>• Students will be able to learn different types of sets.</li> <li>• Students will be able to learn about subsets.</li> <li>• Students will be able to learn the geometrical representations of sets.</li> </ul>

Name of the Chapter	Learning Outcomes
Chapter – 02 (Relations & Functions)	<ul style="list-style-type: none"> <li>● Students will be able to learn about different operations on sets.</li> <li>● Students will be able to learn the elements of the Cartesian product of two sets as set of ordered pairs.</li> <li>● Students will be able to understand the meaning of a relation between two sets or within a set itself,</li> <li>● Students will be able to learn the use an arrow diagram or Cartesian diagrams to represent a given relation between two sets,</li> <li>● Students will be able to learn to form ordered pairs, an arrow diagram, or an equation (rule) based on the described relationship shown,</li> <li>● Students will be able to learn to define a function,</li> <li>● Students will be able to determine whether a relation is a function from a relation diagram, a table, and a set of ordered pairs,</li> <li>● Students will be able to learn to represent functions using diagrams, sets of ordered pairs, equations, and graphs,</li> <li>● Students will be able to learn to define and find a domain, a co-domain, and a range of discrete functions.</li> </ul>
Chapter – 03 (Trigonometric Functions)	<ul style="list-style-type: none"> <li>● Students will be able to learn the measurement of angles in different systems.</li> <li>● Students will be able to learn different trigonometric functions and the relations between them.</li> <li>● Students will be able to learn sign of trigonometric functions in different quadrants.</li> <li>● Students will be able to learn values of trigonometric functions of allied angles.</li> <li>● Students will be able to learn trigonometric functions of compound angles.</li> <li>● Students will be able to learn trigonometric functions of multiple and sub – multiple angles.</li> </ul>
Chapter – 04 (Complex Numbers and Quadratic Equations)	<ul style="list-style-type: none"> <li>● Students will be able to learn the definition of Imaginary numbers</li> <li>● Students will be able to learn concept of complex numbers</li> <li>● Students will be able to learn Real part and imaginary part of a complex number</li> <li>● Students will be able to learn Equality of two complex numbers</li> <li>● Students will be able to learn the properties of complex numbers</li> <li>● Students will be able to learn the conjugate of a complex number</li> <li>● Students will be able to learn the Geometrical representation of complex numbers</li> <li>● Students will be able to learn the solution of the Quadratic equation on a set of complex numbers</li> </ul>

Name of the Chapter	Learning Outcomes
Chapter – 05 (Linear Inequalities)	<ul style="list-style-type: none"> <li>● Students will be able to learn about the difference between equalities and inequalities.</li> <li>● Students will be able to learn about different types of inequalities.</li> <li>● Students will be able to learn how to solve linear inequalities in one variable and their representation on number line.</li> </ul>
Chapter – 06 (Permutations and Combinations)	<ul style="list-style-type: none"> <li>● Students will be able to learn uses of two types of counting principle.</li> <li>● Students will be able to learn difference between permutations and combinations.</li> <li>● Students will be able to learn about factorial notation of any whole number.</li> <li>● Students will be able to learn about permutations and different related formulae.</li> <li>● Students will be able to learn about combinations and different related formulae.</li> <li>● Students will be able to implement application-oriented skills in their day-to-day life.</li> </ul>
Chapter – 07 (Binomial Theorem)	<ul style="list-style-type: none"> <li>● Students will be able to learn about binomial and Pascal's triangle.</li> <li>● Students will be able to learn about binomial theorem for any positive integral index.</li> <li>● Students will be able to learn the general term from the beginning and end of a binomial expansion.</li> <li>● Students will be able to learn about middle term(s) of a binomial expansion.</li> </ul>
Chapter – 08 (Sequence and Series)	<ul style="list-style-type: none"> <li>● Students will be able to learn about sequences and series.</li> <li>● Students will be able to learn about arithmetic mean.</li> <li>● Students will be able to learn about geometric progression and geometric mean.</li> <li>● Students will be able to learn the relation between AM and GM.</li> <li>● Students will be able to learn the infinite GP and how to find the sum.</li> <li>● Students will be able to implement application-oriented skills in their day-to-day life.</li> </ul>
Chapter – 09 (Straight Lines)	<ul style="list-style-type: none"> <li>● Students will be able to learn how to introduce two-dimensional coordinate geometry on the plane.</li> <li>● Students will be able to learn how to find the slope of a line segment.</li> <li>● Students will be able to learn different forms equations of a line.</li> <li>● Students will be able to learn about the parallelism and perpendicularity of two lines.</li> <li>● Students will be able to implement application-oriented skills in their day-to-day life.</li> </ul>

Name of the Chapter	Learning Outcomes
Chapter – 10 (Conic Sections)	<ul style="list-style-type: none"> <li>● Students will learn the accepted names for the conic sections</li> <li>● Students will be able to derive the standard form of the equation of a circle</li> <li>● Students will be able to find the center of a circle and its radius given its equation in standard form</li> <li>● Students will be able to derive the general equation of a circle</li> <li>● Students will be able to learn the conditions under which the general equation of the second degree will be a circle</li> <li>● Students will be able to find the equation of a circle through three non-collinear points</li> <li>● Students will be able to find equation of a parabola in different forms.</li> <li>● Students will be able to find equation of an ellipse in different forms.</li> <li>● Students will be able to find equation of a hyperbola in different forms.</li> </ul>
Chapter – 11 (Introduction to Three-dimensional Geometry)	<ul style="list-style-type: none"> <li>● Students will be able to know about the coordinates of a point in space</li> <li>● Students will be able to know about the octants and the sign of coordinates.</li> <li>● Students will be able to find the distance between two points in three-dimensional geometry</li> <li>● Students will be able to know about the collinearity of three points in space.</li> </ul>
Chapter – 12 (Limits and Derivatives)	<ul style="list-style-type: none"> <li>● Students will be able to have an Idea of limit of a function.</li> <li>● Students will study some algebra of limits of functions.</li> <li>● Students will learn about differentiation.</li> <li>● Students will be able to have an Idea about geometrical meaning of Differentiation.</li> <li>● Students can know derivatives of certain standard functions.</li> <li>● Students can know the rules of differentiation.</li> </ul>
Chapter – 13 (Statistics)	<ul style="list-style-type: none"> <li>● Students will be able to find Measures of Dispersions like range, Mean deviation, Standard deviation.</li> <li>● Students will be able to learn Mean deviation about mean for grouped and ungrouped data.</li> <li>● Students will be able to learn how to find Mean deviation about Median for grouped and ungrouped data.</li> <li>● Students will able to find Variance with direct method and short-cut method.</li> <li>● Students will be able to learn how to find Standard Deviation.</li> </ul>
Chapter – 14 (Probability)	<ul style="list-style-type: none"> <li>● Students will be able to learn about random experiments.</li> <li>● Students will be able to learn about sample space.</li> </ul>



Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>• Students will be able to learn about different events.</li> <li>• Students will be able to learn about different properties of events.</li> <li>• Students will be able to learn about arithmetic and axiomatic approach to probability.</li> <li>• Students will be able to learn about probability of any event and some properties.</li> <li>• Students will be able to implement application-oriented skills in their day-to-day life.</li> </ul>

## Subject – Biology

### Prescribe Books:-

1. Biology - Text Book for Class XI: NCERT
2. Biology - Exemplar for Class XI: NCERT

### (A) Blueprint

#### (i) Mid Term/Half Yearly Examination –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
The Living World	2	--	1	--	--	5
Biological Classification	1	2	--	1	--	9
Plant kingdom	3	--	2	--	--	9
Animal Kingdom	2	1	--	--	1	9
Morphology of Flowering Plants	2	--	1	--	1	10
Anatomy of Flowering Plants	3	--	1	1	--	10
Structural Organization in Animals	2	1	1	--	--	7
Cell- The Unit of Life	1	1	1	--	1	11
<b>Total</b>	<b>16 (1)</b>	<b>5 (2)</b>	<b>7 (3)</b>	<b>2 (4)</b>	<b>3 (5)</b>	<b>70</b>

#### (ii) Periodic Assessment 2 –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Biomolecules	2	1	1	--	--	7
Cell Cycle and Cell Division	2	1	--	1	1	13
<b>Total</b>	<b>4 (1)</b>	<b>2 (2)</b>	<b>1 (3)</b>	<b>1 (4)</b>	<b>1 (5)</b>	<b>20</b>

**(iii) Annual Examination –**

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
The Living World	1	--	--	--	--	1
Biological Classification	1	--	--	1	--	5
Plant Kingdom	--	1	1	--	--	5
Animal Kingdom	1	--	1	--	--	4
Morphology of Flowering Plants	1	--	--	1	--	5
Anatomy of Flowering Plants	--	1	--	--	--	2
Structural Organization in Animals	--	--	1	--	--	3
Cell- The Unit of Life	2	1	--	--	--	4
Biomolecules	1	--	1	--	--	4
Cell Cycle and Cell Division	2	--	--	--	1	7
Photosynthesis in Higher Plants	1	--	--	--	1	6
Respiration in Plants	--	1	--	--	--	2
Plant Growth and Development	1	--	1	--	--	4
Breathing and Exchange of Gases	1	--	--	--	1	6
Body Fluids and Circulation	1	--	1	--	--	4
Excretory products and their Elimination	1	--	--	--	--	1
Locomotion and Movement	1	1	--	--	--	3
Neural control and Coordination	1	--	--	--	--	1
Chemical Coordination and Integration	--	--	1	--	--	3
<b>Total</b>	<b>16 (1)</b>	<b>5 (2)</b>	<b>7 (3)</b>	<b>2 (4)</b>	<b>3 (5)</b>	<b>70</b>

**(B) Learning Outcomes**

Name of the Chapter	Learning Outcomes
The Living World	<ul style="list-style-type: none"> <li>Students will be able to know about the great variety of living things, the practice of classification, taxonomy and systematic, Binomial nomenclature, tools for study of taxonomy.</li> <li>Students will understand the need for classification. List out the basic characters of living things, concept of species and taxonomical hierarchy.</li> <li>Students will be able to apply the knowledge in classifying things, differentiate between living and non-living and also group organisms on the basis of similarities and differences.</li> </ul>

Name of the Chapter	Learning Outcomes
Biological Classification	<ul style="list-style-type: none"> <li>● Students will be able to understand the process of classification of organism.</li> <li>● Students can appreciate the role of bacteria in human progress and can identify the different categories of bacteria.</li> <li>● Students can describe the features of protista, fungi (phycobiont and mycobiont, dikaryon) different protozoans RNA and DNA virus.</li> <li>● Students can define alternation of generation in plants.</li> </ul>
Plant Kingdom	<ul style="list-style-type: none"> <li>● Students will know and understand Salient features of major groups of plants. Distinguishing features and examples of each group of algae. Life cycles of bryophytes, pteridophytes, gymnosperms and angiosperms.</li> <li>● Students would be able to Draw a labeled diagram to show life cycles of bryophytes, pteridophytes, gymnosperms and angiosperms Understand difference between gametophyte and sporophyte.</li> <li>● Understand formation of spores and gametes in different stages of life cycles.</li> </ul>
Animal Kingdom	<ul style="list-style-type: none"> <li>● Students will gain the knowledge through study of various organisms on various bases, categorization of chordates and non-chordates their structure and appearance and occurrence.</li> <li>● Students can identify the contrasting features of various phylum and that will help in comparative study.</li> </ul>
Morphology of Flowering Plants	<ul style="list-style-type: none"> <li>● Enable the students to know and understand the morphology and modifications root, stem, leaf, inflorescence, flower, parts of a flower, fruit, seed, structure of dicot and monocotyledonous seed.</li> <li>● Students are able to understand and describe a flower parts, writes floral formula with floral diagrams.</li> <li>● Students are able to develop skill of drawing the diagrams.</li> </ul>
Anatomy of Flowering Plants	<ul style="list-style-type: none"> <li>● Students can define tissues and appreciate the diversity in anatomy of root, stem and leaf.</li> <li>● Explain the features of parenchyma, collenchymas and sclerechyma.</li> <li>● Differentiate among epidermal, vascular and ground tissue system define conjoint, collateral, open, closed exarch and endarch vascular bundles.</li> <li>● Correlate the anatomy of root, stem and leaf.</li> <li>● Differentiate between the spring wood and autumn wood and the heart wood and sap wood.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>● Explain the secondary growth in dicot stem and root.</li> <li>● Develop the skill of identifying monocot and dicot stem and root by their internal structure and can draw the diagrams.</li> <li>● Develop the skill of taking cross sections of root, stem and leaf and mount them on microscope using appropriate chemicals.</li> </ul>
Structural Organization in Animals	<ul style="list-style-type: none"> <li>● Students will gain the knowledge about various types of animal tissues.</li> <li>● Students can well understand the digestive, respiratory, circulatory, excretory neural and reproductive systems of frog.</li> </ul>
Cell-The Unit of Life	<ul style="list-style-type: none"> <li>● Students can understand how the cellular components are used to generate and utilize energy in cells.</li> <li>● Students will apply their knowledge of cell biology to selected examples of changes or losses in cell function.</li> <li>● Students are able to explain and apply cell theory.</li> <li>● Students are able to describe the major components of a cell, including the cell membrane, cytoplasm, nucleus, ribosome, endoplasmic reticulum etc.</li> <li>● Students appreciate the differences between a plant and animal cell.</li> <li>● Students have a basic understanding of chromosomes.</li> <li>● Understand cell envelope and its modifications.</li> <li>● Understand mechanism of intracellular transport of substances.</li> </ul>
Biomolecules	<ul style="list-style-type: none"> <li>● Students will be able to know and understand the carbohydrates on the basis of number of carbon atoms and functional group. Protein structure and function, zwitter ion, pH sensitivity, polymerization.</li> <li>● Students will know the structure of nucleic acids and its function, difference between DNA and RNA, polymerization of nucleotides to form polymer.</li> <li>● They would come to know and understand about enzymes and catalytic activity.</li> <li>● Students would able to understand mechanism of drawing structure of carbohydrates, lipids, proteins, nucleic acids.</li> <li>● They can able to write equations to show formation of peptide bond, glycosidic bond, phosphodiester bond and ester bonds.</li> <li>● Students also are able to understand how enzymes speed up rate of reactions and factors affecting enzyme activity.</li> </ul>
Cell and Cell Division	<ul style="list-style-type: none"> <li>● Students can list the checkpoints that regulate the progression of cells through the cell cycle.</li> <li>● Students will be able to describe the basic four stages of interphase, and describe the major events that occur during</li> </ul>

Name of the Chapter	Learning Outcomes
	<p>each stage in preparation for cell division.</p> <ul style="list-style-type: none"> <li>● Describe the difference between mitosis and meiosis.</li> <li>● Students can know the importance of various types of cell division like mitosis and meiosis.</li> </ul>
Photosynthesis in Higher Plants	<ul style="list-style-type: none"> <li>● Students can understand and realise the different pathways in photosynthesis and appreciate the work of scientists behind the discovery of photosynthesis, reason out the requirements of pigment molecules.</li> <li>● Students can observe and derive inference from the experiments and activities.</li> <li>● Students can compare various pathways associated with the synthesis of sugar and explain the role of sunlight in the process.</li> </ul>
Respiration in Plants	<ul style="list-style-type: none"> <li>● Students will know and understand how do plants breathe?</li> <li>● Students will know the mechanism of cellular respiration, glycolysis and Kreb's cycle.</li> <li>● Students would be able to differentiate between aerobic and anaerobic respiration mechanism of alcoholic and lactic acid fermentation and understand importance of formation of proton gradient and breakdown of proton gradient for ATP synthesis</li> <li>● Students can understand how ATP is used in coupled reactions, and phosphorylation and be able to recognize oxidation/reduction reactions.</li> </ul>
Plant Growth and Development	<ul style="list-style-type: none"> <li>● Students should understand the irreversible phenomena of plant growth and physiological activity of plant hormones during its development</li> <li>● We can apply these knowledge in plant according to need in agriculture field or horticulture.</li> </ul>
Breathing and Exchange of Gases	<ul style="list-style-type: none"> <li>● Students know the organs of respiration, terms like expiration, inspiration, lung capacity, lung volume Etc.</li> <li>● Understand the structure and working of respiratory system, mechanism of breathing, know the regulation of respiration.</li> <li>● Understand the need of maintaining healthy respiratory system.</li> <li>● Develop the skill of drawing diagram of respiratory system.</li> </ul>
Body Fluids and Circulation	<ul style="list-style-type: none"> <li>● Students will know and understand all the components of human circulatory system mechanism of coagulation of blood concept of human blood group.</li> <li>● Students would be able to describe circulatory pathways, cardiac cycle and understand electrocardiograph.</li> </ul>
Excretory Products and their Elimination	<ul style="list-style-type: none"> <li>● Students will state the function of the urinary system, name the products of excretion.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>● Students can describe the structure of the urinary system and describe the function of the kidneys in filtering the bloodstream.</li> </ul>
Locomotion and Movement	<ul style="list-style-type: none"> <li>● Students can understand the structure and function of types of muscles and skeletal system.</li> <li>● Students can critically analyses the various movements related to joints in the skeletal system.</li> <li>● Students can appreciate the mechanism of muscle contraction takes place in our body and how effectively they bring movement along with the skeletal system.</li> <li>● Students can develop citizenship by visualizing and observing the given scenario (arthritis, gout, osteoporosis, muscular dystrophy) in day to day lives and present it in the form of a skit to sensitize others.</li> </ul>
Neural Control and Coordination	<ul style="list-style-type: none"> <li>● Students will know and understand coordination to maintain homeostasis mechanism of generation and conduction of nerve impulse, concept of transmission of impulse through synapse.</li> <li>● Students would be able to describe the role of neurotransmitters in impulse conduction through synapse and understand functions of different parts of brain.</li> </ul>
Chemical Coordination and Integration	<ul style="list-style-type: none"> <li>● Students can recognize the need for control and coordination in the body of various organisms.</li> <li>● Students can list various hormones and discuss about their functions and relate nervous system and endocrine system with the function of control and coordination.</li> <li>● Students can describe the location and structure of endocrine glands and recognize its function and relating to action.</li> <li>● Students can draw an outline diagram of human body and show the location of various endocrine glands.</li> <li>● Students can list the hormones secreted by pituitary, thyroid and pancreas.</li> <li>● Students can state the symptoms and cause of cretinism, goiter and diabetes mellitus.</li> </ul>



## Subject – Computer Science

### Prescribe Books:-

1. Computer Science with Python – Sumita Arora, DHANPAT RAI & CO. (Pvt) Limited, Educational & Technical Publishers.

### (A) Blueprint

#### (i) Mid Term/Half Yearly Examination –

Chapters	Mark Distribution				
	1 Mark	2 Marks	3 Marks	4 Marks	Total
Computer overview	5	--	--	--	5
Data representation	--	7	--	--	14
Boolean logic	4	5	--	--	14
Introduction to problem solving	4	--	--	--	4
Getting started with python	3	1	--	--	5
Python fundamentals	6	6	--	--	18
Data handling	--	5	--	--	10
<b>Total</b>	<b>22 (1)</b>	<b>24 (2)</b>	<b>--</b>	<b>--</b>	<b>70</b>

#### (ii) Periodic Assessment 2 –

Chapters	Mark Distribution				
	1 Mark	2 Marks	3 Marks	4 Marks	Total
Flow of control	4	3	--	--	10
String manipulation	4	3	--	--	10
<b>Total</b>	<b>8 (1)</b>	<b>6 (2)</b>	<b>--</b>	<b>--</b>	<b>20</b>

#### (iii) Annual Examination –

Chapters	Mark Distribution				
	1 Mark	2 Marks	3 Marks	4 Marks	Total
Data representation	3	--	--	--	3
Boolean logic	--	2	--	--	4
Python fundamentals	3	--	--	--	3
Data handling	3	3	--	--	9
Flow of control	3	3	--	--	9
String manipulation	4	3	--	--	10
List manipulation	4	2	--	--	8
Working with Tuple	4	2	--	--	8

Chapters	Mark Distribution				
	1 Mark	2 Marks	3 Marks	4 Marks	Total
Dictionaries	4	2	--	--	8
Introduction to Python Modules	2	1	--	--	4
Society, law & Ethics	4	--	--	--	4
<b>Total</b>	<b>34 (1)</b>	<b>18 (2)</b>	--	--	<b>70</b>

### (B) Learning Outcomes

Name of the Chapter	Learning Outcomes
Computer overview	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Learn Computer basics including computer terminologies.</li> <li>● Collect information on Various types of Memory Concepts</li> <li>● Know different memory classification</li> <li>● Develop the concepts of Operating Systems</li> <li>● Briefly understand classification of Software</li> </ul>
Data representation	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Understand the concepts of different number systems</li> <li>● Well conversant with the conversion from one number system to another</li> <li>● Grasp the knowledge of Character representation in memory</li> <li>● Know the concepts of UNICODE</li> </ul>
Boolean logic	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Develop the concepts of Logical Operations</li> <li>● Understand the concepts of Logic gates</li> <li>● Work with generating and simplify Logic Circuits</li> </ul>
Introduction to problem solving	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Know the concepts of Problem Solving Cycle</li> <li>● Understand the concepts of Designing Algorithms</li> <li>● Draw Flow Charts</li> <li>● Implement different problems on generating and developing flow charts</li> </ul>
Getting started with python	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Understand the concepts of Python Software</li> <li>● Work with Python Installation</li> <li>● Write Basic Python Programs</li> </ul>
Python fundamentals	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Know the concepts of Python Character Set</li> <li>● Understand the concepts of Tokens</li> <li>● Explore the Structure of Python Program</li> <li>● Write Programs using Variables and Assignments</li> <li>● Work with simple input and Output based Program</li> </ul>

Name of the Chapter	Learning Outcomes
Data handling	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Identify the concepts of Data Types</li> <li>● Briefly understand the concepts of Mutable &amp; Immutable Types</li> <li>● Work with Operators and Expressions</li> <li>● Understand the concepts of Python Standard Library Modules</li> <li>● Briefly understand the concepts of Code Tracing</li> </ul>
Flow of control	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Work with the concepts of Different types of Statements in Python</li> <li>● Understand the concepts of Statement Flow Control</li> <li>● Explore the concepts of Selection Statements (if Statements )</li> <li>● Work with range( ) function</li> <li>● Write Programs using Looping Control Statements (for and while )</li> <li>● Write Programs using the concepts of Jump Statements (break &amp; continue)</li> <li>● Develop the concepts of loop else statement</li> <li>● Identify the concepts of working with nested loops</li> </ul>
String manipulation	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Understand the concepts of String traversal</li> <li>● Write Programs using different operators used in String</li> <li>● Work with string slices</li> <li>● Know different string Functions and Methods</li> </ul>
List manipulation	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Handle in Creating and Accessing Lists</li> <li>● Write Programs using different List operations</li> <li>● Develop the concepts of creating true copy of a List</li> <li>● Work with nested Lists</li> <li>● Understand different List Functions and Methods</li> </ul>
Working with Tuple	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Handle in Creating and Accessing Tuples</li> <li>● Write Programs using different Tuple operations</li> <li>● Develop the concepts of different Tuple Functions and Methods</li> <li>● Briefly understand the concepts of Tuple Manipulation</li> <li>● Work with nested Tuples</li> </ul>
Dictionaries	After studying this Chapter, the Students will be able to: <ul style="list-style-type: none"> <li>● Work with Key: Value Pairs</li> <li>● Handle in Creating and Accessing Dictionary</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>● Write Programs using Dictionaries such as multiple ways of creating Dictionary/ Adding elements/ modifying/ deleting/ checking the existence of key etc.</li> <li>● Develop the concepts of writing programs using Dictionary Functions and Methods</li> </ul>
Introduction to Python Modules	<p>After studying this Chapter, the Students will be able to:</p> <ul style="list-style-type: none"> <li>● Working with the concept of import statement</li> <li>● Using the concept of ‘import &lt;module&gt;’ and using from statement</li> <li>● Understand the various functions under math Module</li> <li>● Use the concepts of random module</li> <li>● Use the concepts of statistics module</li> </ul>
Society, law & Ethics	<p>After studying this Chapter, the Students will be able to:</p> <ul style="list-style-type: none"> <li>● Explore the concepts of Digital Footprints</li> <li>● Briefly understand the concepts of net etiquettes, communication etiquettes, social media etiquettes</li> <li>● Well conversant with the concepts of Data Protection such as Intellectual property rights/ violation of IPR/open source software and licensing</li> <li>● Collect information’s on Cyber Crime/Cyber Safety/ Malware</li> <li>● Focus on the concepts on E-Waste Management</li> <li>● Collect information &amp; ideas ideas on IT ACT-2000</li> <li>● Stress on Gender and disability issues while teaching and using computers</li> </ul>

## Subject – Physical Education

### Prescribe Books:-

1. Health and Physical Education – XI, Saraswati Publication. Author – Dr. V.K,Sharma.
2. A Text Book of Physical Education – XI, Vishvas Publication. Author – Mr. Sushil Tyagi

### (A) Blueprint

#### (i) Mid Term/Half Yearly Examination –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Changing Trends and Career in Physical Education.	3	--	1	1	--	10
Olympic Value Education	3	1	--	1	--	9
Yoga	3	1	1	--	1	13
Physical Education and Sports for Children with Special Needs.	3	1	1	1	--	12
Physical Fitness, Wellness, and lifestyle.	3	1	1	--	1	13
Test, Measurement and Evaluation	3	1	1	--	1	13
<b>Total</b>	<b>18 (1)</b>	<b>5 (2)</b>	<b>5 (3)</b>	<b>3 (4)</b>	<b>3 (5)</b>	<b>70</b>

#### (ii) Periodic Assessment 2–

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Fundamentals of Anatomy, Physiology in Sports.	1	1	1	--	1	11
Fundamentals of Kinesiology and Biomechanics in Sports.	3	1	--	1	--	9
<b>Total</b>	<b>4 (1)</b>	<b>2 (2)</b>	<b>1 (3)</b>	<b>1 (4)</b>	<b>1 (5)</b>	<b>20</b>

#### (iii) Annual Examination –

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Changing Trends and Career in Physical Education.	3	1	1	--	--	8
Olympic Value Education	1	--	--	1	--	5
Yoga	2	--	--	--	1	7
Physical Education and Sports for Children with Special Needs.	2	1	1	--	--	7
Physical Fitness, Wellness, and lifestyle.	1	--	--	1	--	5
Test, Measurement and Evaluation	3	1	1	--	--	8

Chapters	Mark Distribution					
	1 Mark	2 Marks	3 Marks	4 Marks	5 Marks	Total
Fundamentals of Anatomy, Physiology in Sports.	--	--	1	--	1	8
Fundamentals of Kinesiology and Biomechanics in Sports.	2	1	--	1	--	8
Psychology and Sports	2	1	1	--	--	7
Training and doping in Sports	2	--	--	--	1	7
<b>Total</b>	<b>18 (1)</b>	<b>5 (2)</b>	<b>5 (3)</b>	<b>3 (4)</b>	<b>3 (5)</b>	<b>70</b>

### (B) Learning Outcomes

Name of the Chapter	Learning Outcomes
Changing Trends and Career in Physical Education.	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Recognize the concept of Physical Education.</li> <li>● Identify the aims and objectives of Physical Education.</li> <li>● Explore historical aspect of Physical Education in India.</li> <li>● Recognize various changing trends in sports (wearable gears, equipments, technologies, etc.)</li> <li>● Explore different career options in the field of Physical Education.</li> <li>● Understand Khelo India and Fit India Programme.</li> </ul>
Olympic Value Education	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Incorporate values of Olympism in life.</li> <li>● Differentiate Modern and Ancient Olympic Games</li> <li>● Paralympics and Special Olympic games.</li> <li>● Identify the Olympic Symbol and Ideals.</li> <li>● Describe the structure of Olympic movement.</li> </ul>
Yoga	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Recognize the concept of yoga and its importance.</li> <li>● Identify the elements of yoga.</li> <li>● Identify the Asanas, Pranayamas, Meditation and Yogic Kriyas.</li> <li>● Classify various yogic activities for enhancement of concentration.</li> <li>● Know about relaxation techniques for improving concentration.</li> </ul>
Physical Education and Sports for Children with Special Needs.	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Describe the concept of disability and disorder.</li> <li>● Outline types of disability and describe its causes and nature.</li> <li>● Adhere and respect children with special needs by following etiquettes.</li> <li>● Identify possibilities and scope in adaptive physical education.</li> <li>● Relate various types of professional support for CWSN along with their roles and responsibilities.</li> </ul>



Name of the Chapter	Learning Outcomes
Physical Fitness, Wellness, and lifestyle.	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Explain wellness and its importance and define the components of wellness.</li> <li>● Classify physical fitness and recognize its importance in life.</li> <li>● Differentiate skill related and health related components of physical fitness.</li> <li>● Illustrate traditional sports and regional games for promoting wellness.</li> <li>● Relate leadership through physical activity and sports.</li> <li>● Illustrate the different steps used in first-aid (PRICE).</li> </ul>
Test, Measurement and Evaluation	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Define the terms test, measurement and evaluation.</li> <li>● Differentiate norm and criterion referenced standards.</li> <li>● Differentiate formative and summative evaluation.</li> <li>● Discuss the importance of measurement and evaluation process.</li> <li>● Understand BMI: A popular clinical standard and its computation.</li> <li>● Describe the procedure of Anthropometric Measurement.</li> <li>● Differentiate Endomorphy, Mesomorphy and Ectomorphy.</li> <li>● Describe the procedure for measurement of health-related fitness.</li> </ul>
Fundamentals of Anatomy, Physiology in Sports.	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Identify the importance of anatomy and physiology.</li> <li>● Recognize the functions of the skeleton.</li> <li>● Understand the functions of bones and identify various types of joints.</li> <li>● Figure out the properties and functions of muscles and understand how they work.</li> <li>● Understand the anatomy of the respiratory system and describe its working.</li> <li>● Identify and analyze the layout and functions of Circulatory System.</li> </ul>
Fundamentals of Kinesiology and Biomechanics in Sports.	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Understand Kinesiology and Biomechanics with their application in sports.</li> <li>● Explain biomechanical principles and their utilization in sports and physical education.</li> <li>● Illustrate fundamental body movements and their basic patterns.</li> </ul>

Name of the Chapter	Learning Outcomes
	<ul style="list-style-type: none"> <li>● Learn about the Axis and Planes and their application with body movements.</li> </ul>
Psychology and Sports	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Identify the role of Psychology in Physical Education and Sports.</li> <li>● Differentiate characteristics of growth and development at different states.</li> <li>● Explain the issues related to adolescent behavior and Team Cohesion in sports.</li> <li>● Correlate psychological concepts with the sports and athlete specific situations.</li> </ul>
Training and doping in Sports	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>● Understand the concept and principles of sports training.</li> <li>● Summarize training load and its concept.</li> <li>● Understand the concept of warming up and limbering down in sports training and their types, method and importance.</li> <li>● Acquire the ability to differentiate between the skill, technique, tactics and strategies in sports training.</li> <li>● Interpret concept of doping.</li> </ul>

