

**MOUNT COLUMBUS SCHOOL  
DAKSHINPURI, NEW DELHI – 62**

**Mid Term Syllabus (2024-25)**

**CLASS X**

**ENGLISH LANGUAGE & LITERATURE (184)**

**NAME OF THE BOOK: FIRST FLIGHT (NCERT)**

**FOOTPRINTS WITHOUT FEET (NCERT)**

**WORDS AND EXPRESSIONS - II (NCERT)**

**CBSE ENGLISH LANGUAGE AND LITERATURE – PRACTICE BOOK  
(PP PUBLICATIONS)**

| <b><u>CHAPTERS</u></b>   | <b><u>ACTIVITIES</u></b>   |
|--|--|
| <b><u>FIRST FLIGHT (PROSE)</u></b><br>Ch 1 - A Letter to God ( <b>As per PT I</b> )<br>Ch 2- Nelson Mandela...Long Walk to Freedom<br>( <b>As per PT I</b> )<br>Ch 3- Two Stories About Flying<br>Ch 4 - From the diary of Anne Frank<br>Ch 5 - Glimpses of India<br>Ch 6 – Mijbil the Otter | Conduct a Research on the following question.<br>What animals can be exported or imported under law?<br>(Customs seizures show a variety of animals from reptiles, lizards, leopards to pythons, venomous reptile. These are carried in tiny suitcases and smuggled.)<br><b>*To be done on A4 size sheets.</b>   |
| <b><u>FIRST FLIGHT (POETRY)</u></b><br>Poem 1 - Dust of Snow ( <b>As per PT I</b> )<br>Poem 2 - Fire and Ice ( <b>As per PT I</b> )<br>Poem 3 - A Tiger in the Zoo<br>Poem 4 - How to tell wild animals<br>Poem 5 - The Ball Poem<br>Poem 6 - Amanda<br>Poem 7 – The Trees                   | <b><u>Integration with Social Science</u></b><br>*Our railways have undergone magical transformation since independence from electrification to high speed etc. Find more about Indian Railways and prepare a write up. You can add experiences of rail travel of people and yourself.<br>* Collect pictures and information about vintage, royal and luxury trains in India.<br><b>(To be done on A4 size sheets)</b> |
| <b><u>FOOTPRINTS WITHOUT FEET</u></b><br>Ch 1 - A Triumph of Surgery( <b>As per PT I</b> )<br>Ch 2 - The Thief's Story<br>Ch 3- The Midnight Visitor<br>Ch 4 - A Question of trust<br>Ch 5 - Footprints without feet<br>Ch 6 - The Making of a Scientist                                     |  |
| <b><u>WRITING SKILLS</u></b><br>1. Formal letter based on a given situation<br>( <b>As per PT I</b> )<br>2. Analytical Paragraph   |  |
| <b><u>GRAMMAR</u></b><br>1. Subject – Verb Concord ( <b>As per PT I</b> )<br>2. Determiners<br>3. Reported Speech  |  |
| <b><u>WORDS AND EXPRESSIONS – II</u></b><br>1. Unit 1<br>2. Unit 2<br>3. Unit 3<br>4. Unit 4   |  |
| <b><u>PRACTICE BOOK (PP PUBLICATIONS)</u></b><br>Literature<br>Writing Skills<br>Grammar   |  |

**BLUE PRINT**

Maximum Marks=80

Time Allowed – 3 Hrs.

|   | 1 Mark         | 3 Marks       | 5 Marks       | 6 Marks       | Total     | Weightage (%) |
|---|----------------|---------------|---------------|---------------|-----------|---------------|
| <b>Section A: (20 marks)</b>                          |                |               |               |               |           | <b>25</b>     |
| Unseen Passage  | 20             |               | -             |               | 20        |               |
| <b>Section B : (20 marks)</b>                         |                |               |               |               |           | <b>25</b>     |
| Formal Letter   | -              |               | 1             |               | 5         |               |
| Analytical Paragraph                                  | -              |               | 1             |               | 5         |               |
| Grammar   | 10             |               | -             |               | 10        |               |
| <b>Section C: (40 marks)</b>                          |                |               |               |               |           | <b>50</b>     |
| Reference to the context<br>(First Flight)            | 5              |               | -             |               | 5         |               |
| Reference to the context<br>(Footprints without feet) | 5              |               | -             |               | 5         |               |
| Short Answer Question<br>(First Flight)               | -              | 4             | -             |               | 12        |               |
| Short Answer Question<br>(Footprints without feet)    | -              | 2             |               |               | 6         |               |
| Long Answer Question<br>(First Flight)                | -              | -             | -             | 1             | 6         |               |
| Long Answer Question<br>(Footprints without feet)     | -              | -             | -             | 1             | 6         |               |
| <b>Total</b>  | <b>40X1=40</b> | <b>6X3=18</b> | <b>2X5=10</b> | <b>2X6=12</b> | <b>80</b> | <b>100</b>    |

| पाठ का नाम  | क्रियाकलाप   |
|---|--|
| <p><b>पाठ्यपुस्तक- स्पर्श</b></p> <p><b>काव्य खंड</b></p> <p>पाठ-1 कबीर- साखी (पी टी-1 के अनुसार)</p> <p>पाठ-2 मीराबाई</p> <p>पाठ-3 मैथिलीशरण गुप्त-मनुष्यता</p> <p>पाठ-4 पर्वत प्रदेश में पावस</p> <p>पाठ-5 वीरेन डंगवाल-तोप</p> <p><b>गद्य खंड</b></p> <p>पाठ-1 बड़े भाई साहब (पी टी-1 के अनुसार)</p> <p>पाठ-2 डायरी का एक पन्ना</p> <p>पाठ-3 तताँरा-वामीरो कथा</p> <p>पाठ-4 अब कहाँ दूसरों के दुःख से दुखी होने वाले</p> <p><b>संचयन</b></p> <p>पाठ-1 हरिहर काका (पी टी-1 के अनुसार)</p> <p>पाठ-3 टोपी शुक्ला</p> <p><b>व्याकरण</b></p> <ul style="list-style-type: none"> <li>● रचना के आधार पर वाक्य भेद</li> <li>● पदबंध (पी टी-1 के अनुसार)</li> <li>● समास</li> <li>● मुहावरे (पी टी-1 के अनुसार)</li> <li>● अपठित गद्यांश</li> <li>● लेखन</li> </ul> <p>सूचना लेखन, विज्ञापन लेखन, पत्र और अनुच्छेद लेखन</p> | <ul style="list-style-type: none"> <li>● रंतिदेव, दधीचि या कर्ण के महत्वपूर्ण योगदान पर स्टोरी बोर्ड तैयार करना है।</li> <li>● किसी पर्वतीय प्रदेश की यात्रा के लिए सचित्र विवरण का प्रचार करना।</li> <li>● 1857 की क्रांति में काम आने वाले औजारों और हथियारों का चित्र बनाकर वॉल गैलरी तैयार करें।</li> <li>● कथा के दो मूल पात्र तताँरा और वामीरो की प्रेम कथा कासंवादअभिनय।</li> <li>● साक्षात्कार</li> <li>● दादा-दादी, माता-पिता और मित्रों की विचारधारा का अंतर स्पष्ट कर अभिव्यक्त करें।</li> <li>● मित्रता में कोई धर्म, जाति, ऊँच-नीच आदि का कोई स्थान नहीं होता है और इसी अनूठी मिसाल इप्फ़न और टोपी की मित्रता थी। अपने और अपने मित्र के बारे में बताते हुए अपने पिताजी को पत्र लिखिए।</li> <li>● मौखिक और लिखित अभ्यास (कार्यपत्रक के माध्यम से)</li> <li>● अभिनय के माध्यम से मुहावरों को पूछना और उनका बोर्ड पर लेखन करना।</li> </ul> |

**प्रश्न-पत्र का प्रारूप**

समय: 3 घंटे

पूर्णांक : 80

| क्रम संख्या | पाठ्य क्रमानुसार इकाइयां   | इकाई पर आवंटित अंक           | अंकवार प्रश्नों की संख्या  |                            |              |              |               | कुल प्रश्न                 | प्रतिशत (%)                        |       |
|-------------|--|------------------------------|----------------------------|----------------------------|--------------|--------------|---------------|----------------------------|------------------------------------|-------|
|             |  |                              | 1 अंक                      | 2 अंक                      | 3 अंक        | 4 अंक        | 5 अंक         |                            |                                    |       |
| 1           | <b>अपठित गद्यांश</b>   | 14                           | 6                          | 4                          |              | -            | -             | 2                          | 17.50                              |       |
| 2           | <b>व्याकरण</b><br><ul style="list-style-type: none"> <li>● रचना के आधार पर वाक्य भेद</li> <li>● पदबंध</li> <li>● समास</li> <li>● मुहावरे</li> </ul>  | 4<br>4<br>4<br>4             | 4<br>4<br>4<br>4           |                            |              |              | -             | 4                          | 20                                 |       |
| 3           | <b>पाठ्यपुस्तक काव्य खंड</b><br>पाठ-1 कबीर- साखी<br>पाठ-2 मीराबाई<br>पाठ-3 मैथिलीशरण गुप्त – मनुष्यता<br>पाठ-4 पर्वत प्रदेश में पावस<br>पाठ-5 वीरेन डंगवाल-तोप<br><b>गद्यखंड</b><br>पाठ-1 बड़े भाई साहब<br>पाठ-2 डायरी का एक पन्ना<br>पाठ-3. ततारा-वामीरो कथा<br>पाठ-14 अब कहाँ दूसरों के दुःख से दुखी होने वाले<br><b>संचयन</b><br>पाठ-1 हरिहर काका<br>पाठ -3 टोपी शुक्ला | 11<br><br><br><br><br><br>11 | 5<br><br><br><br><br><br>5 | 3<br><br><br><br><br><br>3 |              |              | -             | 2<br><br><br><br><br><br>2 | 13.75<br><br><br><br><br><br>13.75 |       |
| 4           | <b>लेखन</b><br>सूचना लेखन<br>विज्ञापन लेखन<br>पत्र लेखन<br>अनुच्छेद लेखन<br>लघुकथा और ईमेल   | 4<br>3<br>5<br>5<br>5        | -                          |                            | 1            | 1            |               | 3                          | 5                                  | 27.50 |
|             | <b>योग</b>   | <b>80</b>                    | <b>32X1=32</b>             | <b>10X2=20</b>             | <b>3X3=9</b> | <b>1x4=4</b> | <b>3x5=15</b> | <b>16</b>                  | <b>100</b>                         |       |

## Mathematics (041, 241)

NAME OF THE BOOK: Mathematics (NCERT)

Mathematics (RS Aggarwal)

| Name of the chapter                                  | Lab Activity   |
|--|--|
| Chapter 1: Real numbers (As per PT-1)                | -  |
| Chapter 2: Polynomials (As per PT-1)                 | -  |
| Chapter 3: Pair of Linear Equations in Two Variables | (a) To solve the different types of systems of linear equations on graph paper.<br>(b) To obtain the condition of consistency of system of equations.  |
| Chapter 4: Quadratic Equations                       | -  |
| Chapter 6: Triangles                                 | To prove that the line drawn parallel to one side of a triangle intersecting the other two sides divides them in the same ratio.<br><br>To verify that “the square of the hypotenuse is equal to the sum of squares of the other two sides in a right triangle.” |
| Chapter 7: Coordinate Geometry (As per PT-1)         | -  |
| Chapter 8: Introduction to Trigonometry              | To verify the Trigonometric identity : $\sin^2\theta + \cos^2\theta = 1$   |
| Chapter 9: Some Applications of Trigonometry         | -  |
| Chapter 12: Surface Areas and Volumes                | To verify that the surface area of a sphere is four times the area of a circle of the same radius.   |
| Chapter 14: Probability                              | To find the probability of the sum of numbers on a pair of dice through an activity.   |

**BLUEPRINT**

TIME: 3 Hrs.

MAX. MARKS: 80

| S.No. | CHAPTERS   | Objective Questions (1Mark) | Very Short Questions (2 Marks) | Short Questions (3 Marks) | Case Based Questions (4 Marks) | Long Questions (5 Marks) | Total Marks | Percentage (%) Weightage |
|-------|--|-----------------------------|--------------------------------|---------------------------|--------------------------------|--------------------------|-------------|--------------------------|
| 1.    | Chapter 1: Real numbers                              | 2                           | 1                              | 1                         | -                              | -                        | 7           | 8.75                     |
| 2.    | Chapter 2: Polynomials                               | 2                           | -                              | 1                         | -                              | -                        | 5           | 6.25                     |
| 3.    | Chapter 3: Pair of Linear Equations in Two Variables | 2                           | 1                              | 1                         | -                              | -                        | 7           | 8.75                     |
| 4.    | Chapter 4: Quadratic Equations                       | 2                           | 1                              | 1                         | -                              | -                        | 7           | 8.75                     |
| 5.    | Chapter 6: Triangles                                 | 1                           | 1                              | -                         | -                              | 1                        | 8           | 10                       |
| 6.    | Chapter 7: Coordinate Geometry                       | 2                           | -                              | 2                         | 1                              | -                        | 12          | 15                       |
| 7.    | Chapter 8: Introduction to Trigonometry              | 2                           | 1                              | -                         | -                              | 1                        | 9           | 11.25                    |
| 8.    | Chapter 9: Some Applications of Trigonometry         | 1                           | -                              | -                         | -                              | 1                        | 6           | 7.50                     |
| 9.    | Chapter 12: Surface Areas and Volumes                | 2                           | -                              | -                         | 1                              | 1                        | 11          | 13.75                    |
| 10.   | Chapter 14: Probability                              | 4                           | -                              | -                         | 1                              | -                        | 8           | 10                       |
| Total |  | 1x20=20                     | 2x5=10                         | 3x6=18                    | 4x3=12                         | 5x4=20                   | 80          | 100                      |

**SCIENCE (086)**

NAME OF THE BOOK: NCERT SCIENCE

V.K SCIENCE PHYSICS

V.K SCIENCE CHEMISTRY

V.K SCIENCE BIOLOGY

| SUBJECT   | CHAPTERS   | ACTIVITY / EXPERIMENT   |
|-----------|--|---|
| PHYSICS   | Ch-9, Light<br>(As per PT-1)<br><br>Ch-10, Human eye and colourful world<br><br><br><br><br><br><br><br><br><br>Ch-12, Magnetic effect | -<br><br><b><u>ACTIVITY</u></b> <ul style="list-style-type: none"><li>• Create a 3D model of the human eye using clay or paper mache to understand its structure.</li><li>• Act out the process of light passing through the eye and forming an image on the retina.</li></ul> <b><u>EXPERIMENT</u></b> <ul style="list-style-type: none"><li>• Trace the path of a light ray passing through a rectangular glass slab for different angles of incidence.</li></ul><br><b><u>ACTIVITY</u></b> <ul style="list-style-type: none"><li>• Draw or paint a diagram illustrating the magnetic field lines around a magnet.</li></ul>  |
| CHEMISTRY | Ch-1, Chemical Reactions<br>(As per PT-1)<br><br>Ch-2, Acids, Bases and Salts<br><br><br><br><br><br><br>Ch-3, Metals and Non-Metals   | -<br><br><b><u>ACTIVITY</u></b> <ul style="list-style-type: none"><li>• Neutralise me/ look for my salt game- Prepare 30 cards having the names of different 10 salts, 10 acids and 10 base (group activity).</li><li>• Record the pH of various beverages that we consume in our daily life. Also check their implication of teeth/bones.</li></ul> <b><u>EXPERIMENT</u></b> <ul style="list-style-type: none"><li>• Find the pH of the samples by using pH paper.</li><li>• To study the properties of acids and bases</li></ul><br><b><u>ACTIVITY</u></b> <ul style="list-style-type: none"><li>• Design board games or card games incorporating metal and non-metal properties.</li></ul> <b><u>EXPERIMENT</u></b> <ul style="list-style-type: none"><li>• To observe the action of Iron, Aluminium, Zinc and Copper on the following aqueous solution of Zinc Sulphate, Aluminium Sulphate, Copper Sulphate and Ferrous Sulphate and arrange these metals according to their reactivity.</li></ul> |
| BIOLOGY   | Ch-5, Life Processes<br>(As per PT-1)<br><br>Ch-6, Control and coordination  | -<br><br><b><u>ACTIVITY</u></b> <ul style="list-style-type: none"><li>• Write a story about the nervous system and its role in control and coordination.</li><li>• Create a flow chart illustrating the steps involved in the reflex arc.</li></ul>   |

|  |                         |  |
|--|-------------------------|--|
|  | Ch-13 , Our Environment | <p><b><u>ACTIVITY</u></b></p> <ul style="list-style-type: none"> <li>Write a letter to the god stating the present condition of the earth/ gratitude letter to god.</li> </ul> |
|--|-------------------------|--|

**BLUEPRINT**

**Time – 3 Hours**

**Maximum Marks - 80**

| S.No         | CHAPTERS                             | Objective Questions (1Mark) | Very Short Questions (2 Marks) | Short Questions (3 Marks) | Source Based Questions (4 Marks) | Long Questions (5 Marks) | Total Marks | Percentage (%) Weightage |
|--------------|--------------------------------------|-----------------------------|--------------------------------|---------------------------|----------------------------------|--------------------------|-------------|--------------------------|
| 1.           | Ch-1, Chemical Reactions             | 3                           | -                              | 1                         | -                                | -                        | 6           | 6.25                     |
| 2.           | Ch-2, Acids, Bases and Salts         | 3                           | 1                              | -                         | -                                | 1                        | 10          | 12.5                     |
| 3.           | Ch-3, Metals and Non-Metals          | 3                           | -                              | 1                         | 1                                | -                        | 10          | 11.25                    |
| 4.           | Ch-5, Life Processes                 | 2                           | 1                              | 1                         | 1                                | -                        | 11          | 13.75                    |
| 5.           | Ch-6, Control and coordination       | 3                           | 2                              | 1                         | -                                | -                        | 10          | 12.5                     |
| 6.           | Ch-13 , Our Environment              | 2                           | -                              | 1                         | -                                | -                        | 5           | 6.25                     |
| 7.           | Ch-9, Light                          | 2                           | -                              | 1                         | 1                                |                          | 9           | 11.25                    |
| 8.           | Ch-10, Human eye and colourful world | 1                           | 2                              | -                         | -                                | 1                        | 10          | 13.75                    |
| 9.           | Ch-12, Magnetic effect               | 1                           | -                              | 1                         | -                                | 1                        | 9           | 12.5                     |
| <b>Total</b> |                                      | <b>1X20=20</b>              | <b>2X6=12</b>                  | <b>3X7=21</b>             | <b>4X3=12</b>                    | <b>5X3=15</b>            | <b>80</b>   | <b>100</b>               |



**SOCIAL SCIENCE (087)**

NAME OF THE BOOK: India and the Contemporary World-II

Contemporary India-II

Democratic Politics-II

Understanding Economic Development

Workbook

| CHAPTERS   | ACTIVITIES  |
|--|---|
| <b>HISTORY</b><br>Ch-1. The Rise of Nationalism in Europe (As per PT-1)<br><br>Ch-2. Nationalism in India<br><br><br>Ch-3. The Making of Global World  | -<br><br>Map Work (1918 – 1930) for Locating and Labelling /Identification-<br><b>1. Indian National Congress Sessions:</b><br>Calcutta (Sep. 1920), Nagpur (Dec. 1920), Madras (1927)<br><b>2. Three Satyagraha Movements:</b><br>Champaran (Bihar) - Movement of Indigo Planters<br>Kheda (Gujarat) - Peasant Satyagrah<br>Ahmedabad (Gujarat) - Cotton Mill Workers Satyagraha<br><b>3. Jallianwala Bagh Incident</b> - Amritsar (Punjab)<br><b>4. Chauri Chaura (U.P.)</b> - Calling off the Non-Cooperation Movement<br><b>5. Dandi (Gujarat)</b> - Civil Disobedience Movement<br><br><b>Group Discussion on World War -II and Global Economy</b>   |
| <b>GEOGRAPHY</b><br>Ch-1. Resources and Development<br>Ch-2. Forest and Wildlife Resources<br>Ch-3. Water Resources<br><br>Ch-4. Agriculture<br><br><br>Ch-7. Lifeline of Indian Economy (only Map Pointing) | <b>Map Work:</b> Identify major types of soils.<br><br><b>Mind Map</b><br><br><b>Map Work-Dams:</b> Salal, Bhakra Nangal, Tehri, Rana Pratap Sagar, Sardar Sarovar, Hirakud, Nagarjuna Sagar, Tungabhadra<br><br><b>Map Work-Major areas of Rice and Wheat</b><br>Largest / Major producer States of Sugarcane, Tea, Coffee, Rubber, Cotton and Jute<br><br><b>Map Work-Major Ports:</b> Kandla, Mumbai, Marmagao, New Mangalore, Kochi, Tuticorin, Chennai, Vishakhapatnam, Paradip, Haldia<br><b>International Airports:</b> Amritsar (Raja Sansi- Sri Guru Ram Das jee), Delhi (Indira Gandhi International), Mumbai (Chhatrapati Shivaji), Chennai (Meenam Bakkam), Kolkata (Netaji Subhash Chandra Bose), Hyderabad (Rajiv Gandhi) |
| <b>ECONOMICS</b><br>Ch-1. Development<br>Ch-2. Sectors of the Indian Economy<br>Ch-3. Money and Credit   | -<br>Concept building- Interdependency three sectors<br><br>Visit to Bank (To be done under the supervision of Parent)  |
| <b>POLITICAL SCIENCE</b><br>Ch-1. Power Sharing (As per PT-1)<br>Ch-2. Federalism (As per PT-1)<br>Ch-3. Gender, Religion and Caste  | -<br>-<br>Wall Journal- Story of India  |

**Note:** Project work will be assessed in Chapter-3: The Making of Global World and Chapter-7: Lifeline of Indian Economy

**BLUEPRINT****TIME: 3 Hrs.****MAX. MARKS: 80**

| S.No. | Name of the Chapters                    | MCQ<br>(1 Mark) | Very Short<br>Type<br>Question<br>(2 Marks) | Short<br>Type<br>Question<br>(3 Marks) | Long<br>Question<br>(5 Marks) | Source/<br>Case<br>Based<br>Question<br>(4 Marks) | Map<br>Skill<br>(1 Mark) | Total<br>Marks | Percentage<br>(%)<br>Weightage |
|-------|---|-----------------|---|--|-------------------------------|---|--------------------------|----------------|--------------------------------|
| 1     | Ch-1. The Rise of Nationalism in Europe | 3               | 1   | -                                      | 1                             | -   | -                        | 10             | 12.5                           |
| 2     | Ch-2. Nationalism in India              | 1               | -   | 1                                      | -                             | 1   | 2                        | 10             | 12.5                           |
| 3     | Ch-1. Resources and Development         | 1               | 1   | -                                      | -                             | -   | 2                        | 05             | 6.25                           |
| 4     | Ch-2. Forest and Wildlife Resources     | 1               | -   | 1                                      | -                             | -   | 1                        | 05             | 6.25                           |
| 5     | Ch-3. Water Resources                   | 1               | -   | -                                      | -                             | 1   | -                        | 05             | 6.25                           |
| 6     | Ch-4. Agriculture                       | -               | -   | -                                      | 1                             | -   | -                        | 05             | 6.25                           |
| 7     | Ch-1. Development                       | 1               | -   | -                                      | 1                             | -   | -                        | 06             | 7.5                            |
| 8     | Ch-2. Sectors of the Indian Economy     | 2               | 1   | -                                      | -                             | 1   | -                        | 08             | 10                             |
| 9     | Ch-3. Money and Credit                  | -               | -   | 2                                      | -                             | -   | -                        | 06             | 7.5                            |
| 10    | Ch-1. Power Sharing                     | 4               | 1   | -                                      | -                             | -   | -                        | 06             | 7.5                            |
| 11    | Ch-2. Federalism                        | 3               | -   | 1                                      | -                             | -   | -                        | 06             | 7.5                            |
| 12    | Ch-3. Gender, Religion and Caste        | 3               | -   | -                                      | 1                             | -   | -                        | 08             | 10                             |
|       | <b>Total</b>                            | <b>1x20=20</b>  | <b>2x4=08</b>                               | <b>3x5=15</b>                          | <b>5x4=20</b>                 | <b>4x3=12</b>                                     | <b>1x5=05</b>            | <b>80</b>      | <b>100</b>                     |

## ARTIFICIAL INTELLIGENCE (417)

Book Name: - Artificial Intelligence

| <b>Part-A</b><br>Employability skills                         | Activity/Practical   |
|---|--|
| Unit 1: Communication Skills-II<br>(As per PT-1)              | -  |
| Unit 2 :Self-management Skills-II<br>(As per PT-1)            | -  |
| Unit 3: Information and<br>Communication Technology Skills-II | <ul style="list-style-type: none"><li>➤ Divide the class into two different groups and ask them to discuss the following topics:<ul style="list-style-type: none"><li>a) Types of operating systems</li><li>b) Operating system and its functions.</li></ul></li></ul>   |
| Unit 4: Entrepreneurial Skill-II                              | <ul style="list-style-type: none"><li>➤ Introspect and assess yourself as a future entrepreneur. Think about the entrepreneurial qualities you have read about and analyses your strengths and weaknesses. Write a report on your self-analysis.</li><li>➤ Read the success stories of two entrepreneurs to know how they acquired corporate experience and started their ventures. Compile your findings as a project report.</li></ul>                               |
| <b>Part-B</b><br>Subject Specific Skills                      |  |
| Unit 1 :Introduction to AI<br>(As per PT-1)                   | -  |
| Unit 2: AI Project Cycle                                      | <ul style="list-style-type: none"><li>➤ You are working on a project to predict the price of a house based on features such as square footage, number of rooms, and location. The dataset includes numerical values for these features and historical sales prices of houses. You have been asked to develop an AI system for this scenario. Which AI model will you use?</li></ul>  |
| Unit 3: Advance Python  | <ul style="list-style-type: none"><li>➤ Write a program to calculate the surface area and volume of a cuboid.</li><li>➤ Write a program to ask for height in centimeters and convert it into feet and inches.</li><li>➤ Write a program to check whether the given number is even and odd.</li><li>➤ Write a program to check whether the applicant is eligible to vote in the elections or not.</li><li>➤ Write a program to delete an element from a list.</li></ul> |
| Unit 4: Data Science  | <ul style="list-style-type: none"><li>➤ Imagine you are building an AI project based on the data science domain. What are the different sources of data and the points you will consider while collecting data from different sources?</li></ul>   |
| Unit 5: Computer Vision                                       | <ul style="list-style-type: none"><li>➤ Consider that you are working on a self-driving car project. Describe the Computer Vision techniques and algorithms that the car's cameras and sensors might use to navigate and make decisions in real-time.</li></ul>  |

**BLUE PRINT**

Maximum Marks:- 50

Time Allowed:- 2 hours

| <b>PART A - EMPLOYABILITY SKILLS (10 MARKS):</b>    |  |                                  |                             |                          |                 |
|---|--|----------------------------------|-----------------------------|--------------------------|-----------------|
| Unit No   | NAME OF THE UNIT   | OBJECTIVE TYPE QUESTIONS         | SHORT ANSWER TYPE QUESTIONS | TOTAL QUESTIONS          |                 |
|   |  | 1 MARK EACH                      | 2 MARK EACH                 |                          |                 |
| 1   | Communication Skills - II                                  | 1                                |                             | 1                        |                 |
| 2   | Self-Management Skills - II                                | 1                                | 1                           | 2                        |                 |
| 3   | Unit 3: Information and Communication Technology Skills-II | 1                                | 1                           | 2                        |                 |
| 4   | Unit 4: Entrepreneurial Skills – II                        | 1                                | 1                           | 2                        |                 |
| <b>PART B - SUBJECT SPECIFIC SKILLS (40 MARKS):</b> |  |                                  |                             |                          |                 |
| Unit No   | NAME OF THE UNIT   | OBJECTIVE TYPE QUESTIONS         | SHORT ANSWER TYPE QUESTIONS | LONG ANS. TYPE QUESTIONS | TOTAL QUESTIONS |
|   |  | 1 MARK EACH                      | 2 MARK EACH                 | 4 MARK EACH              |                 |
| 1   | Unit 1 :Introduction to AI                                 | 6                                | 1                           | 1                        | 8               |
| 2   | Unit 2: AI Project Cycle                                   | 6                                | 1                           | 1                        | 8               |
| 3   | Unit 3: Advance Python                                     | To be assessed in Practical only |                             |                          |                 |
| 4   | Unit 4: Data Science                                       | 6                                | 1                           | -                        | 7               |
| 5   | Unit 5: Computer Vision                                    | 2                                | 1                           | 1                        | 4               |

## INFORMATION TECHNOLOGY (402)

Book Name : Basics of Information Technology

| Unit  | Practical   |
|---|---|
| Communication Skills – II (As per PT-1)                   | -   |
| Self-Management Skills – II (As per PT-1)                 | -   |
| Unit 3 Information and Communication Technology skills-II | <ol style="list-style-type: none"><li>1. Identification of task bar, icons, menu, etc.</li><li>2. Demonstration and practicing of creating, renaming and deleting files and folders, saving files in folders and sub-folders, restoring files and folders from recycle bin</li><li>3. Demonstration of the procedures to be followed for cleaning, care and maintenance of hardware and software</li></ol>  |
| Unit 4 Entrepreneurial Skills-II                          | <ol style="list-style-type: none"><li>1. Collecting success stories of first generation and local entrepreneurs</li><li>2. Listing the entrepreneurial qualities – analysis of strength and weaknesses</li></ol> <p>Activity</p> <ol style="list-style-type: none"><li>1. Collect information and related data for a business</li><li>2. Make a plan in team for setting up a business</li></ol>  |
| Part B  |   |
| Digital Documentation (Advance) (As per PT-1)             | -   |
| Unit 2 Electronic Spreadsheet (Advanced)                  | <p><b>Activity</b></p> <p><b>1 Budgeting and Financial Analysis</b></p> <ul style="list-style-type: none"><li>- Create a budget spreadsheet to track income and expenses.</li><li>- Use formulas and functions (e.g., SUM, AVERAGE, IF) to calculate totals and percentages.</li><li>- Analyze data to make financial decisions.</li></ul> <p><b>2. Data Visualization</b></p> <ul style="list-style-type: none"><li>- Create charts and graphs to represent data (e.g., sales, temperature, grades).</li><li>- Use different types of charts (e.g., bar, pie, line) to display data effectively.</li><li>- Customize chart elements (e.g., titles, labels, colors).</li></ul>  |
| Unit 3 Database Management System                         | <p><b>Practical</b></p> <ol style="list-style-type: none"><li>1. Identify the data and information</li><li>2. Identify the field, record, table in the database</li><li>3. Prepare the sample table with some standard fields.</li><li>4. Create and edit tables using wizard and SQL commands</li></ol> <p><b>Activity</b></p> <ol style="list-style-type: none"><li>1. Create a database using a DBMS like MySQL or Access.<ul style="list-style-type: none"><li>- Define tables, fields, and data types.</li><li>- Insert sample data into the tables.</li></ul></li><li>2. Design a database for a small business or personal project.<ul style="list-style-type: none"><li>- Identify entities, attributes, and relationships.</li><li>- Create an Entity-Relationship diagram (ERD).</li></ul></li><li>3. Write SQL queries to:<ul style="list-style-type: none"><li>- Retrieve specific data using WHERE clauses.</li><li>- Sort and filter data using ORDER BY and GROUP BY clauses.</li><li>- Perform calculations using aggregate functions (SUM, AVG, MAX, MIN).</li></ul></li></ol> |

| <b>PART A - EMPLOYABILITY SKILLS (10 MARKS):</b>    |                                  |                          |                             |                          |                 |
|---|----------------------------------|--------------------------|-----------------------------|--------------------------|-----------------|
| Unit No   | NAME OF THE UNIT                 | OBJECTIVE TYPE QUESTIONS | SHORT ANSWER TYPE QUESTIONS | TOTAL QUESTIONS          |                 |
|   |                                  | 1 MARK EACH              | 2 MARK EACH                 |                          |                 |
| 1   | Communication Skills - II        | 1                        |                             |                          | 1               |
| 2   | Self-Management Skills - II      | 1                        | 1                           |                          | 2               |
| 3   | ICT Skills - II                  | 1                        | 1                           |                          | 2               |
| 4   | Entrepreneurial Skills - II      | 1                        | 1                           |                          | 2               |
| <b>PART B - SUBJECT SPECIFIC SKILLS (40 MARKS):</b> |                                  |                          |                             |                          |                 |
| Unit No   | NAME OF THE UNIT                 | OBJECTIVE TYPE QUESTIONS | SHORT ANSWER TYPE QUESTIONS | LONG ANS. TYPE QUESTIONS | TOTAL QUESTIONS |
|   |                                  | 1 MARK EACH              | 2 MARK EACH                 | 4 MARK EACH              |                 |
| 1   | Digital Documentation (Advance)  | 6                        | 1                           | 1                        | 8               |
| 2   | Electronic Spreadsheet (Advance) | 6                        | 1                           | 1                        | 8               |
| 3   | Database Management System       | 8                        | 2                           | 1                        | 11              |

**ART**

Book- Canvas –A book of fine ARTs

**UNIT-1 STILL LIFE:** Kettle, Apples and Wine (Colour Pencil- Pg.13), Flowers (Water Colour-Pg.14), Fruits (Colour Pencil- Pg.16), Vegetables (Colour Pencil- Pg.18)  
**UNIT-2 LANDSCAPE:** Landscape (Poster Colours- Pg.27), Landscape (Acrylic Colours- Pg.28)

**WORK EDUCATION**

1. Jute Bag Painting
2. Papier Mache
3. Block Printing-Table Cloth