## **CBSE | DEPARTMENT OF SKILL EDUCATION**

## FOUNDATION SKILLS FOR SCIENCES (PHARMACEUTICAL &

## **BIOTECHNOLOGY) (SUBJECT CODE -421)**

Blue-print for sample question paper for class X (Session 2025-2026)

Max. Time: 2 Hours Max. Marks: 50

#### PART A – EMPLOYABILITY SKILLS (10 MARKS):

| UNIT<br>NO.                       | NAME OF THE UNIT            | OBJECTIVE TYPE QUESTION 1 MARK EACH | SHORT ANSWER TYPE QUESTION 2 MARK EACH | TOTAL<br>QUESTIONS |
|-----------------------------------|-----------------------------|-------------------------------------|--|--------------------|
| 1                                 | Communication Skills – II   | 1                                   | 1                                      | 2                  |
| 2                                 | Self-Management Skills – II | 2                                   | 1                                      | 3                  |
| 3                                 | ICT Skills – II             | 1                                   | 1                                      | 2                  |
| 4                                 | Entrepreneurial Skills – II | 1                                   | 1                                      | 2                  |
| 5                                 | Green Skills - II           | 1                                   | 1                                      | 2                  |
| TOTAL QUESTIONS                   |                             | 6                                   | 5                                      | 11                 |
| NO. OF QUESTION TO BE<br>ANSWERED |                             | ANY 4                               | ANY 3                                  | 07                 |
| TOTAL MARKS                       |                             | 1 X 4 = 4                           | 2 X 3 = 6                              | 10 MARKS           |

#### PART B – SUBJECT SPECIFIC SKILLS (40 MARKS):

| UNIT<br>NO. | NAME OF THE UNIT  | OBJECTIVE<br>TYPE<br>QUESTIONS<br>1 MARK EACH | SHORT ANSWER TYPE QUESTION 2 MARK EACH | LONG ANSWER QUESTION 4 MARKS EACH | TOTAL<br>QUESTIO<br>N |
|-------------|---|---|--|-----------------------------------|-----------------------|
| 1.          | Fundamental of<br>Scientific sales and<br>marketing               | 4   | 1                                      | 1                                 | 6                     |
| 2.          | Standard operating procedures and fundamental elements of quality | 4   | 1                                      | 1                                 | 6                     |
| 3.          | Handling glassware in laboratory.                                 | 4   | 1                                      | 1                                 | 6                     |
| 4.          | Chemical storage and handling in laboratory.                      | 4   | 1                                      | 1                                 | 6                     |

| UNI<br>T<br>NO.               | NAME OF THE UNIT   | OOBJECTIVE<br>TYPE<br>QUESTION | SHORT<br>ANSWER TYPE<br>QUESTION | LONG ANSWER QUESTION | TOTAL<br>QUESTIO<br>N |
|-------------------------------|--|--------------------------------|----------------------------------|----------------------|-----------------------|
|                               |  | 1 MARK EACH                    | 2 MARK EACH                      | 4 MARKS EACH         |                       |
| 5.                            | Fundamental Science for medicine manufactory.                                  | 4                              | 1                                | 1                    | 6                     |
| 6.                            | Fundamental of<br>Innovation and<br>Research to resolve<br>real life problems. | 4                              | 1                                | -                    | 5                     |
| Total Question                |  | 24                             | 6                                | 5                    | 35                    |
| No of Question to be answered |  | 20                             | Ans. 4                           | Ans. 3               | 27                    |
| Total                         | Marks  | 1x20 =20                       | 2x4 = 8                          | 4x3 = 12             | 40 marks              |

## **CBSE | DEPARTMENT OF SKILL EDUCATION**

(SUBJECT CODE - 421)

#### Sample Question paper for class X. (Session 2025 - 2026)

Max. Time – 2 Hours Max. Marks: 50

#### **General Instruction:**

- **1** Please read the instruction carefully.
- **2** This question paper consists of 21 questions in two sections: Section A and Section B.
- **3** Section A has objective type question where as section B contains subjective type questions.
- 4 Out of the given (5+16)=21 questions, a candidate has to answer (5+10)=15 questions in the allotted (maximum) time of 2 hours.
- **5** All questions of a particular section must be attempted in the correct order.

#### 6 Section A: Objective Type Questions (24 marks):

- i. This section has 5 questions.
- ii. Marks allotted are mentioned against each question/part.
- iii. There is no negative marking.
- iv. Do as per the instructions given

### 7 Section B: Subjective type questions (26 marks):

- i. This section has 15 questions.
- ii. A candidate has to do 10 questions.
- iii. Do as per the instruction given.
- iv. Marks allotted are mentioned against each question/part.

| SECTION A:- OB | <b>ECTIVE</b> | TYPE Q | <u>UESTIONS</u> |
|----------------|---------------|--------|-----------------|
|                |               | •      |                 |

| Q.1  | Answer any 4 out of the given 6 questions on employability skills:-(1x4=4)     | marks) |
|------|--|--------|
| i)   | It is the means by which the information is sent –                             | 1      |
|      | a) Feedback  |        |
|      | <ul><li>b) Sender</li><li>c) Message</li></ul>                                 |        |
|      | d) Channel   |        |
| ii)  | Mention one skill that you should master to get success in life.               | 1      |
| iii) | is the ability to identify and name one's own emotion.                         | 1      |
| iv)  | The most important software in any computer is                                 | 1      |
| v)   | have a positive relationship with society.                                     | 1      |
| vi)  | How many sustainable development goals are given by the United Nations?        | 1      |
|      |  |        |
| Q.2  | Answer any five out of the given 6 questions (1x5=5 marks)                     |        |
| i)   | Who plays a crucial role in gathering feedback from health-care professionals, | 1      |
|      | patients and care givers?  |        |
|      | a) Interviews<br>b) Surveys  |        |
|      | b) Surveys<br>c) Research  |        |
|      | d) Marketing   |        |
| ii)  | The full form of SOP is-   | 1      |
|      | a) Standard Operating Protocols  |        |
|      | b) Standard Operating Procedures   |        |
|      | c) Standard Operational Process  |        |
|      | d) Standard Operating Practice   |        |
| iii) | are conical shaped glass containers with a narrow neck and flat                | 1      |
|      | bottom-  |        |
|      | a) Test-tube   |        |
|      | b) Graduated cylinders   |        |
|      | c) Erlenmeyer flasks<br>d) Pipettes  |        |
| iv)  | are used to determine the end point of chemical reaction and ph.               | 1      |
| 11)  | of a solution –  | -      |
|      | a) Salts   |        |
|      | b) Acids   |        |
|      | c) Indicators  |        |
|      | d) Bases   |        |
| v)   | It regulate the pharmaceutical industry to ensure the safety, efficacy and     | 1      |
|      | quality of medicines- a) Research and development                              |        |
|      | b) Regulatory Authorities  |        |
|      | c) Manufacturing Companies   |        |
|      | d) Healthcare Providers  |        |
|      | - ·  |        |

| vi)               | is a right to use an invention.  | 1           |
|-------------------|--|-------------|
|                   | a) Trademarks b) Copyright   |             |
|                   | c) Trade secrets   |             |
|                   | d) Patents   |             |
| Q.3               | Answer any 5 out of given 6 questions (1x5=5)  |             |
| i)                | What is the full form of RCPA?   | 1           |
| ii)               | Give one example of PPE  | 1           |
| iii)              | Which laboratory deals with the experiments related to chemical reactions  | 1           |
| iv)               | Mention one substance that are used in laboratory for staining any biological specimens  | 1           |
| v)                | Who deals with the spatial arrangement of atoms within molecules?  | 1           |
| vi)               | What type of innovation happens when someone attempts for improving the process.   | 1           |
|                   |  |             |
| Q.4               | Answer any 5 out of given 6 questions (1x5=5)  |             |
| i)                | Mention the two basic categories for an innovation.  | 1           |
| ii)               | What is the full form of GMP?  | 1           |
| iii)              | Which substance can ignite easily and can cause fires and explosions?  | 1           |
| iv)               | Give one example of Class A glassware.   | 1           |
| v)                | What do you mean by Quality standard?  | 1           |
| vi)               | Mention one type of Advertising Media for Life Sciences sales and Marketing.   | 1           |
|                   |  |             |
| 0.5               | Answer any 5 out of given 6 questions (1x5=5)  |             |
|                   | Answer any 5 out of given 6 questions (1x5=5)  What are the 4P's of marketing mix?   | 1           |
| <b>Q.5</b> i)     | What are the 4P's of marketing mix?  | 1           |
| i)<br>ii)         | What are the 4P's of marketing mix?  Write one SOP of a factory worker working in an industry.   | 1           |
| i)<br>ii)<br>iii) | What are the 4P's of marketing mix?  Write one SOP of a factory worker working in an industry.  Give two common examples of glass wares used in science laboratories.  |             |
| i) ii) iii) iii)  | What are the 4P's of marketing mix?  Write one SOP of a factory worker working in an industry.  Give two common examples of glass wares used in science laboratories.  Which substances can cause serious health problems if ingested or inhaled accidently. | 1<br>1<br>1 |
| i)<br>ii)<br>iii) | What are the 4P's of marketing mix?  Write one SOP of a factory worker working in an industry.  Give two common examples of glass wares used in science laboratories.  Which substances can cause serious health problems if ingested or inhaled             | 1           |

## **SECTION B: SUBJECTIVE TYPE QUESTIONS**

# Answer any 3 out of given 5 questions on Employability Skills: (2x3=6) Answer each question in 20-30 words:

| Q.6. | Write the 7Cs of effective communication?  | 2 |
|------|--|---|
| Q.7  | Give two differences between Interest and abilities.   | 2 |
| Q.8  | What are the ways in which personal information can be leaked from a computer without our knowing? | 2 |
| Q.9  | Mention two mis – conceptions that we may have about entre premiership.                            | 2 |
| Q.10 | What are the main problems related to Sustainable Development?                                     | 2 |

#### Answer any 4 out of the given 6 questions in 20-30 words each : (2x4=8)

| Q.11 | Mention the importance of Sales and Marketing in the field of business.                       | 2 |
|------|---|---|
| Q.12 | What are the two key features of a Quality Management System?                                 | 2 |
| Q.13 | Write the main use of pipettes and burettes in a chemistry laboratory.                        | 2 |
| Q.14 | Mention two important points that you should keep it in mind while the labeling of chemicals. | 2 |
| Q.15 | What are the two benefits of implementing GMP guidelines for Pharmaceutical Companies ?       | 2 |
| Q.16 | Give two differences between Research and Development (R&D) and Innovation.                   | 2 |

#### Answer any 3 out of given 5 questions in 50-80 words each: (4x3=12)

| Q.17 | What are the primary purposes of RCPA and write it's benefits.   | 4 |
|------|--|---|
| Q.18 | Mention the different components of SOP. Give two advantages that we will get from SOP.  | 4 |
| Q.19 | Write the importance of handling glassware's safely in laboratories.   | 4 |
| Q.20 | What are the storage conditions for chemicals that one should follow in laboratory to prevent accidents and minimize the risk of exposure to hazardous substances? | 4 |
| Q.21 | Write a short notes on the basic principles of organic chemistry related to medicine manufacturing?  | 4 |