

**CBSE | DEPARTMENT OF SKILL EDUCATION**

**ELECTRONICS TECHNOLOGY (SUBJECT CODE - 820)**

**Blue-print for Sample Question Paper for Class XII (Session 2024-2025)**

**Max. Time: 3 Hours**

**Max. Marks: 60**

**PART A - EMPLOYABILITY SKILLS (10 MARKS):**

| UNIT NO.                        | NAME OF THE UNIT            | OBJECTIVE TYPE QUESTIONS | SHORT ANSWER TYPE QUESTIONS | TOTAL QUESTIONS |
|---------------------------------|-----------------------------|--------------------------|-----------------------------|-----------------|
|                                 |                             | 1 MARK EACH              | 2 MARKS EACH                |                 |
| 1                               | COMMUNICATION SKILLS – IV   | 1                        | 1                           | 2               |
| 2                               | Self-Management Skills – IV | 2                        | 1                           | 3               |
| 3                               | ICT Skills – IV             | 1                        | 1                           | 2               |
| 4                               | Entrepreneurial Skills – IV | 1                        | 1                           | 2               |
| 5                               | GREEN SKILLS- IV            | 1                        | 1                           | 2               |
| TOTAL QUESTIONS                 |                             | 6                        | 5                           | 11              |
| NO. OF QUESTIONS TO BE ANSWERED |                             | Any 4                    | Any 3                       | 07              |
| TOTAL MARKS                     |                             | 1 x 4 = 4                | 2 x 3 = 6                   | 10 MARKS        |

**PART B - SUBJECT SPECIFIC SKILLS (50 MARKS):**

| UNIT NO.                        | NAME OF THE UNIT                          | OBJECTIVE TYPE QUESTIONS | SHORT ANS. TYPE QUES.- I | SHORT ANS. TYPE QUES.- II | DESCRIPTIVE/ LONG ANS. TYPE QUESTIONS | TOTAL QUESTIONS |
|---------------------------------|---|--------------------------|--------------------------|---------------------------|---------------------------------------|-----------------|
|                                 |   | 1 MARK EACH              | 2 MARKS EACH             | 3 MARKS EACH              | 4 MARKS EACH                          |                 |
| 1                               | Basic Occupational Safety And Precautions | 07                       | 01                       | -                         | 01                                    | 09              |
| 2                               | Microphones and Loudspeakers              | 07                       | 01                       | 01                        | 01                                    | 10              |
| 3                               | Recorders                                 | 06                       | 01                       | 01                        | 01                                    | 09              |
| 4                               | TV System                                 | 06                       | 01                       | 01                        | 01                                    | 09              |
| 5                               | Modern Appliances                         | 06                       | 01                       | -                         | 01                                    | 08              |
| TOTAL QUESTIONS                 |   | 32                       | 5                        | 3                         | 5                                     | 45              |
| NO. OF QUESTIONS TO BE ANSWERED |   | Any 26                   | Any 3                    | Any 2                     | Any 3                                 | 34              |
| TOTAL MARKS                     |   | 1 x 26= 26               | 2 x 3 = 6                | 3 x 2 = 6                 | 4 x 3 = 12                            | 50 MARKS        |

**CBSE | DEPARTMENT OF SKILL EDUCATION****ELECTRONICS TECHNOLOGY (SUBJECT CODE - 820)****Sample Question Paper for Class XII (Session 2024-2025)****Max. Time: 3 Hours****Max. Marks: 60****General Instructions:**

1. Please read the instructions carefully.
2. This Question Paper consists of 24 questions in two sections – Section A & Section B.
3. Section A has Objective type questions whereas Section B contains Subjective type questions.
4. Out of the given (6 + 18 =) 24 questions, a candidate has to answer (6 + 11 =) 17 questions in the allotted (maximum) time of 3 hours.
5. All questions of a particular section must be attempted in the correct order.
6. SECTION A - OBJECTIVE TYPE QUESTIONS (30 MARKS):
  - i. This section has 06 questions.
  - ii. There is no negative marking.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.
7. SECTION B – SUBJECTIVE TYPE QUESTIONS (30 MARKS):
  - i. This section contains 18 questions.
  - ii. A candidate has to do 11 questions.
  - iii. Do as per the instructions given.
  - iv. Marks allotted are mentioned against each question/part.

**SECTION A: OBJECTIVE TYPE QUESTIONS**

| <b>Q. 1 Answer any 4 out of the given 6 questions on Employability Skills (1 x 4 = 4 marks)</b> |   |   |
|---|---|---|
| i.  | Identify the subject in the sentence, "The children played football". (a) The children (b) children played (c) played (d) football  | 1 |
| ii.   | Which of the following is not a parameter to describe an individual's personality?<br><br>(A) Self-confidence<br><br>(B) Openness<br><br>(C) Neuroticism<br><br>(D) Agreeableness   | 1 |
| iii.  | To take healthy diet is an example of maintaining a positive outlook. (True/False)  | 1 |
| iv.   | The correct order of steps for entering data in a spreadsheet is:<br><br>(A) type the data, click the cell and press Enter.<br><br>(B) click the cell, type the data and press Enter.<br><br>(C) press Enter, click the cell and type the data.<br><br>(D) click the cell, press Enter and type the data. | 1 |
| v.  | The ability to work with others is _____.<br><br>(A) organizational skills<br><br>(B) interpersonal skills<br><br>(C) initiative  | 1 |
| vi.   | _____ can help minimize the greenhouse gas emissions. (CNG/Petrol)  | 1 |

| <b>Q. 2 Answer any 5 out of the given 7 questions (1 x 5 = 5 marks)</b> |  |   |
|---|--|---|
| i.  | Current (amperes) is the killing factor in electrical shock, not the voltage (True/False)  | 1 |
| ii.   | Which of the following is not an occupational disease:<br>A. Tennis elbow<br>B. Asthma<br>C. Skin disease<br>D. Cholera                      | 1 |
| iii.  | Occupational safety and health rule can decrease worker injury and illness. (True/False)   | 1 |
| iv.   | Poor maintenance, untrained employees and carelessness are the causes of accidents in manufacturing industries. (True/False)                 | 1 |
| v.  | Allergy, jaundice, hearing loss, asthma are examples of occupational diseases. (True/False)  | 1 |
| vi.   | Which of the following is not protective equipment?<br>A. Electrical safety shoes<br>B. Rubber gloves<br>C. Safety goggles<br>D. Stethoscope | 1 |
| vii.  | In noisy and vibrating environment of the industry employee should wear:<br>A. Hearing aids  | 1 |

|  |                                      |  |
|--|--------------------------------------|--|
|  | B. Mask<br>C. Helmet<br>D. All above |  |
|--|--------------------------------------|--|

|             |   |   |
|-------------|---|---|
| <b>Q. 3</b> | <b>Answer any 6 out of the given 7 questions (1 x 6 = 6 marks)</b>  |   |
| i.          | .....is a transducer which converts electrical energy into sound energy.  | 1 |
| ii.         | Capacitance microphones are widely used in laboratories to pick-up sound wave to be measured. (True/False)  | 1 |
| iii.        | Merits of Capacitance microphone are:<br>A. It provides a uniform frequency range.<br>B. It can work as a powerful sound wave.<br>C. It requires DC source.<br>D. A and B only. | 1 |
| iv.         | .....is also known as condenser microphone.   | 1 |
| v.          | Dynamic range often described as the ratio of amplitude of the highest sine wave to the rms noise amplitude. (True/False)   | 1 |
| vi.         | Which of the following microphones works on the principle of electromagnetic induction:<br>A. Carbon<br>B. Moving coil<br>C. Piezo electric<br>D. Condenser                     | 1 |
| vii.        | .....is used to reproduce the mid frequencies in loudspeaker system.  | 1 |
| <b>Q. 4</b> | <b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>  |   |
| i.          | Encoder is used in A to D converter in digital recording system (True/False)  | 1 |
| ii.         | Which of the following is not a part of DVD system:<br>A. Disc drive mechanism.<br>B. Optical system.<br>C. Printed circuit board<br>D. Stylus                                  | 1 |
| iii.        | Square wave and pulses are examples of..... (analog/digital signal)   | 1 |
| iv.         | Thickness of CD/DVD is:<br>A. 1.2 mm.<br>B. 1.0 mm<br>C. 1.6 mm<br>D. 0.8 mm  | 1 |
| v.          | DVD and CD are used for .....sound recording (analog/digital)   | 1 |
| vi.         | Output of DAC is:<br>A. Pulses<br>B. Sine wave<br>C. Square wave<br>D. Triangular wave  | 1 |
| <b>Q. 5</b> | <b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>  |   |
| i.          | What is the full form of HPLA? (High Power Linear Amplifier or High Processing Low-cost Amplifier)  | 1 |
| ii.         | Which device is used to generate the local frequency?   | 1 |
| iii.        | Composite signal contains the sync pulses at the side of video signal. (True/False)   | 1 |

|             |  |   |
|-------------|--|---|
| iv.         | CRT stands for ..... (Cross Ray Tube/Cathode Ray Tube)   | 1 |
| v.          | In which type of TV set top box is used:<br>A. LED TV<br>B. LCD TV<br>C. Cable TV<br>D. None of above  | 1 |
| vi.         | Modulation is a process through which the information is modified with the help of locally generated carrier (True/False)  | 1 |
| <b>Q. 6</b> | <b>Answer any 5 out of the given 6 questions (1 x 5 = 5 marks)</b>   |   |
| i.          | What is the full form of EPBX?<br>A. Electrical Private Branch Exchange<br>B. Electronic Private Business Exchange<br>C. Electronic Power Branch Exchange<br>D. Electronic Private Branch Exchange | 1 |
| ii.         | Which material is used in photosensitive drum of a printer? (Iron/Aluminum)  | 1 |
| iii.        | Write the full form of TWT?  | 1 |
| iv.         | An input peripheral device which is used to transfer images into digital form is known as:<br><br>A. Scanner<br>B. Printer<br>C. FAX<br>D. Telephone   | 1 |
| v.          | Which of the following devices is not a terminal device:<br><br>A. Telephone set<br>B. Computer<br>C. Modem<br>D. Printer  | 1 |
| vi.         | Microwave oven works on the principle of conduction and radiation (True/False)   | 1 |

**SECTION B: SUBJECTIVE TYPE QUESTIONS**

**Answer any 3 out of the given 5 questions on Employability Skills (2 x 3 = 6 marks)**

**Answer each question in 20 – 30 words.**

|       |  |   |
|-------|--|---|
| Q. 7  | How many types of 'Objects' are there in a sentence? Explain them. | 2 |
| Q. 8  | Give the examples of result-oriented goals.                        | 2 |
| Q. 9  | What are the three main types of data in a spreadsheet?            | 2 |
| Q. 10 | What do you understand by time management?                         | 2 |
| Q. 11 | Explain the green jobs in solar and wind energy?                   | 2 |

**Answer any 3 out of the given 5 questions in 20 – 30 words each (2 x 3 = 6 marks)**

|       |  |   |
|-------|--|---|
| Q. 12 | What is occupational hygiene?                                      | 2 |
| Q. 13 | Write down at least three applications of moving coil loudspeaker? | 2 |
| Q. 14 | Explain analog and digital signals with their wave forms?          | 2 |
| Q. 15 | What are features of a remote control used in TV?                  | 2 |
| Q. 16 | Write short note on mobile phone?                                  | 2 |

**Answer any 2 out of the given 3 questions in 30– 50 words each (3 x 2 = 6 marks)**

|       |   |   |
|-------|---|---|
| Q. 17 | What is the principle of piezo-electric microphone? Explain it? | 3 |
|-------|---|---|

|       |   |   |
|-------|---|---|
| Q. 18 | Explain the principle of optical recording? | 3 |
| Q. 19 | Write characteristics of a color TV?        | 3 |

**Answer any 3 out of the given 5 questions in 50– 80 words each (4 x 3 = 12 marks)**

|       |   |   |
|-------|---|---|
| Q. 20 | What is an electrical prevention guide?   | 4 |
| Q. 21 | Write short notes on woofer and tweeter?  | 4 |
| Q. 22 | What is the principle of a tape recorder? Draw its block diagram and explain it in brief? | 4 |
| Q. 23 | Draw the block diagram of a TV transmitter and explain its working principle.             | 4 |
| Q. 24 | Write short notes on FAX machine and printer? (4)   | 4 |

www.careerindia.com