

# CBSE Class 12 Electronic Technology 2026 - Set 344



## Question Paper

Conducted by the Central Board of Secondary Education (CBSE)

Time Allowed: 3 Hours

Maximum Marks: 60

### General Instructions

- (i) Please read the instructions carefully.
- (ii) This question paper consists of 24 questions in two Sections : Section A and Section B.
- (iii) Section A has Objective type questions, whereas Section B contains Subjective type questions.
- (iv) 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.
- (v) All questions of a particular section must be attempted in the correct order.
- (vi) Section A : Objective Type Questions (30 marks) : (a) This section has 6 questions. (b) There is no negative marking. (c) Do as per the instructions given. (d) Marks allotted are mentioned against each question/part.
- (vii) Section B : Subjective Type Questions (30 marks) : (a) This section has 18 questions. (b) A candidate has to do 11 questions. (c) Do as per the instructions given. (d) Marks allotted are mentioned against each question/part.

## Section A

1. Answer any 4 out of the given 6 questions on Employability skills.  $4 \times 1 = 4$

1(i). What is the first step in the active listening process ?

- |                                                    |                                                        |
|----------------------------------------------------|--------------------------------------------------------|
| (A) Interrupting to express your thoughts          | (B) Providing solutions before understanding the issue |
| (C) Focusing on the speaker and making eye contact | (D) Checking your phone for messages                   |

1(ii). What is a key characteristic of Schizoid personality disorder ?

- |                         |                                                           |
|-------------------------|-----------------------------------------------------------|
| (A) Fear of abandonment | (B) Excessive need for attention                          |
| (C) Unstable self-image | (D) Lack of interest in social and personal relationships |

1(iii). What is self-awareness ?

1(iv). Which view in a presentation application allows you to see all your slides at once ?

- |                  |                    |
|------------------|--------------------|
| (A) Slide Show   | (B) Normal view    |
| (C) Slide Sorter | (D) Presenter view |

1(v). A \_\_\_\_\_ is a company that is in the first stage of its operations.

- |                          |                |
|--------------------------|----------------|
| (A) small company        | (B) startup    |
| (C) traditional business | (D) small firm |

1(vi). In which sector do green jobs contribute to the development and implementation of renewable energy sources ?

- |                 |                |
|-----------------|----------------|
| (A) Agriculture | (B) Healthcare |
| (C) Energy      | (D) Finance    |

2. Answer any 5 out of the given 7 questions.  $5 \times 1 = 5$

2(i). Occupational diseases are generally caused by poor work or working conditions. (True/False)

2(ii). The process of establishing a hazardous location or agent at the workplace is called \_\_\_\_\_.

- |                  |                           |
|------------------|---------------------------|
| (A) Anticipation | (B) Recognition           |
| (C) Evaluation   | (D) Control and detection |

2(iii). Begin working on electrical equipments only when they are energized. (True/False)

2(iv). What do you mean by occupational hygiene ?

2(v). Fire extinguishers used to extinguish electrical fires are labelled as Class \_\_\_\_\_.

- |       |       |
|-------|-------|
| (A) C | (B) D |
| (C) E | (D) K |

**2(vi).** Which of the following is **not** a protective equipment ?

- (A) Safety shoe                      (B) Hearing protection  
(C) Safety probe                    (D) Resuscitation
- 

**2(vii).** Which of the following is **not** a safety concern in a manufacturing industry ?

- (A) Poor maintenance            (B) Untrained employee  
(C) Carelessness                    (D) Inventory-keeping
- 

**3.** Answer any 6 out of the given 7 questions.  
 $6 \times 1 = 6$

---

**3(i).** Frequency response of a microphone depends on nature of the metal diaphragm and the shape of the case. (True/False)

---

**3(ii).** Write any two merits of piezoelectric microphone.

---

**3(iii).** Impedance, in general, is the opposition to voltage. (True/False)

---

**3(iv).** Which of the following is **not** a part of carbon microphone ?

- (A) AC source                      (B) Step-up transformer  
(C) Diaphragm                    (D) Chamber containing carbon particles
- 

**3(v).** On which principle does a moving coil microphone work ?

---

**3(vi).** In which of the following loudspeaker there is no diaphragm ?

- (A) Direct radiator                (B) Horn loudspeaker  
(C) Indirect radiator              (D) Ionic loudspeaker
- 

**3(vii).** \_\_\_\_\_ is a kind of loudspeaker driver used for low frequency range. (Tweeter/Woofer)

---

**4.** Answer any 5 out of the given 6 questions.  
 $5 \times 1 = 5$

---

**4(i).** An analog sound recorder contains a sampler. (True/False)

---

**4(ii).** Laser beam is used :

- (A) In magnetic tape recording            (B) In DVD disc recording  
(C) In analog sound recording in CD        (D) In analog sound reproduction from CD
- 

**4(iii).** In a magnetic tape recorder, the erase signal is a \_\_\_\_\_ signal.

- (A) high strength and high frequency        (B) high strength and low frequency  
(C) low strength and low frequency        (D) low strength DC
- 

**4(iv).** Which of the following can be used for analog sound recording ?

- (A) Magnetic tape                (B) Compact Disc  
(C) Digital Versatile Disc        (D) Solid State Drive
-

4(v). What do you mean by playback ?

---

4(vi). What is the full form of PCB ?

---

5. Answer any 5 out of the given 6 questions.  
 $5 \times 1 = 5$

---

5(i). High power linear amplifier is used in the audio section of the TV transmitter. (True/False)

---

5(ii). Frequency modulation is done in \_\_\_\_\_ section of the TV transmitter. (Audio/Video)

---

5(iii). Write two key features of HDTV.

---

5(iv). Intermediate Frequency (IF) amplifier in TV receiver is used as \_\_\_\_\_.

- |                            |                            |
|----------------------------|----------------------------|
| (A) Audio signal amplifier | (B) Video signal amplifier |
| (C) Power amplifier        | (D) Tuned amplifier        |
- 

5(v). \_\_\_\_\_ separates video signal from composite signal.

- |                    |                          |
|--------------------|--------------------------|
| (A) Duplexer       | (B) Sync separator       |
| (C) Diode detector | (D) High power amplifier |
- 

5(vi). The mixer of a TV receiver is a/an \_\_\_\_\_ port device.

- |           |          |
|-----------|----------|
| (A) one   | (B) two  |
| (C) three | (D) four |
- 

6. Answer any 5 out of the given 6 questions.  
 $5 \times 1 = 5$

---

6(i). The tone ringer unit in telephone generates frequency in the \_\_\_\_\_ range.

- |                     |                       |
|---------------------|-----------------------|
| (A) 20 Hz to 20 kHz | (B) 330 Hz to 3.3 kHz |
| (C) 16 Hz to 60 Hz  | (D) 20 Hz to 3.3 kHz  |
- 

6(ii). Which of the following is an impact printer ?

- |                    |                     |
|--------------------|---------------------|
| (A) Inkjet printer | (B) Thermal printer |
| (C) Laser printer  | (D) Line printer    |
- 

6(iii). In DTMF, the circuit operates over the supply voltage range from \_\_\_\_\_.

- |                         |                         |
|-------------------------|-------------------------|
| (A) 3 volts to 25 volts | (B) 3 volts to 15 volts |
| (C) 3 volts to 20 volts | (D) 3 volts to 30 volts |
- 

6(iv). There are \_\_\_\_\_ number of pins in RJ11 connector.

- |        |        |
|--------|--------|
| (A) 8  | (B) 6  |
| (C) 14 | (D) 16 |
- 

6(v). Which of the following devices can be used for microwave generation ?

- |                 |                        |
|-----------------|------------------------|
| (A) Transistors | (B) Thyristors         |
| (C) Klystrons   | (D) Vacuum tube diodes |
- 

6(vi). What is the main property of organic photoconductive material that is coated in the drum of a laser printer ?

---

## Section B

Answer any 3 out of the given 5 questions on Employability skills. Answer each question in 20 – 30 words.  $3 \times 2 = 6$

7. “Active listening is an art.” Give any four factors that affect active listening.

8. “Stress is a natural response to challenges or demands.” Write any four ways to manage stress.

9. What types of data are used in a spreadsheet ?

10. How can an entrepreneur develop decisiveness ?

11. Write any four benefits of green jobs.

Answer any 3 out of the given 5 questions in 20 – 30 words each.  $3 \times 2 = 6$

12. Why is biasing required in magnetic tape system ? Write its types.

13. Write the features of a remote control.

14. Draw a block diagram of a microwave oven.

15. Write a short note on safety shorting probe.

16. Define dynamic range of a loudspeaker.

Answer any 2 out of the given 3 questions in 30 – 50 words each.  $2 \times 3 = 6$

17. Write two advantages and one disadvantage of CD/DVD player.

18. Write some general causes of failure of TV receiver.

19. What do you understand by loudspeaker enclosure ?

Answer any 3 out of the given 5 questions in 50 – 80 words each.  $3 \times 4 = 12$

20. Draw a labelled diagram of cathode ray tube.

21. Explain the working of FAX machine.

22. With the help of block diagram, explain the working of digital sound recording.

23. Describe the safety issues in the manufacturing industries.

24. With the help of diagram, explain the working of capacitance microphone.

- End of Question Paper -