

CBSE Class 12 Electronic Technology 2026 - Set 344/7 - Compartment



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 a sentence ?

- | | |
|--|---|
| (A) A group of ideas that form a complete paragraph. | (B) A group of words that communicates a complete thought or meaning. |
| (C) A set of rules that we must follow to write correctly. | (D) A set of words that contains basic punctuation marks. |

1(ii). Define the term “stress”.

1(iii). Cluster ‘A’ personality disorders are associated with individuals who are _____ in nature.

- | | |
|----------------|---------------|
| (A) Suspicious | (B) Emotional |
| (C) Impulsive | (D) Anxious |

1(iv). ICT stands for :

- | | |
|--------------------------------------|--|
| (A) Innovation and Coordination Team | (B) Information and Communication Technology |
| (C) Integrated and Clear Technology | (D) Inspired and Creative Team |

1(v). Which of the following is **not** a component of a spreadsheet ?

- | | |
|--------------|---------------|
| (A) Cell | (B) Worksheet |
| (C) Workbook | (D) Workarea |

1(vi). Name the flagship initiative of the Government of India that is intended to build an ecosystem for the growth of start-up businesses.

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

2(i). Which of the following is **not** an occupational disease ?

- | | |
|-------------------|--------------|
| (A) Hearing loss | (B) Allergy |
| (C) Lungs disease | (D) COVID-19 |

2(ii). Define safety.

2(iii). What is CPR in first aid ?

- | | |
|-----------------------------------|-------------------------------|
| (A) Care Personal Resident | (B) CardioPulmonary Resident |
| (C) CardioPulmonary Resuscitation | (D) CardioPulse Resuscitation |

2(iv). To reduce the risk of electric shock, it is better to use three-pronged plugs.

(True/False)

2(v). To free a person from a live wire, which of the following should **not** be done ?

- | | |
|---|--|
| (A) Try to pull the victim away from the wire | (B) Try to switch off the power supply |
| (C) Use dry wood to remove the wire | (D) Use a plastic rod to remove the wire |

2(vi). There is only one symbol used to indicate a high-radiation place/zone.

(True/False)

2(vii). What do you mean by “anticipation” in occupational hygiene ?

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

3(i). A tweeter is a loudspeaker meant for generating high-frequency sound.

(True/False)

3(ii). Write one application of a piezoelectric microphone.

3(iii). A moving-coil loudspeaker is also known as _____.

(Dynamic loudspeaker/Condenser loudspeaker)

3(iv). Sound waves at the back side of a loudspeaker are _____ out of phase with respect to the sound waves at the front of the loudspeaker.

- | | |
|----------------|-----------------|
| (A) 45° | (B) 60° |
| (C) 90° | (D) 180° |

3(v). Which of the following microphones is lightest in weight ?

- | | |
|--------------------------|----------------------------|
| (A) Carbon microphone | (B) Moving-coil microphone |
| (C) Capacitor microphone | (D) Crystal microphone |

3(vi). A capacitor microphone contains _____.

- | | |
|-------------------|----------------------|
| (A) AC source | (B) DC source |
| (C) Electromagnet | (D) Permanent magnet |

3(vii). A direct-radiant cone type loudspeaker attenuates :

- | | |
|------------------------------|--|
| (A) medium-range frequencies | (B) low frequencies |
| (C) high frequencies | (D) very low and very high frequencies |

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

4(i). In magnetic tape, _____ coating is used.

- | | |
|------------------|----------------------|
| (A) Copper oxide | (B) Aluminum oxide |
| (C) Ferric oxide | (D) Cadmium sulphate |

4(ii). _____ is not used for analog sound recording.

- | | |
|-------------------|-----------------|
| (A) DVD | (B) Vinyl disc |
| (C) Magnetic tape | (D) Laquer disc |

4(iii). A photodetector is used in the _____ section of a DVD/CD player.

- | | |
|--------------------------|---------------------------|
| (A) Disc drive mechanism | (B) Printed circuit board |
| (C) Optical system | (D) Power supply |

4(iv). _____ is used in disc recording to combine digital data with error control, correction and sync word.

- | | |
|---------------------------------|---------------------------------|
| (A) Analog-to-digital converter | (B) Digital-to-analog converter |
| (C) Bit-error controller | (D) Multiplexer |

4(v). Which of the following storage devices uses pits and bumps to hold data ?

- | | |
|-------------------|----------------------|
| (A) Magnetic tape | (B) DVD |
| (C) Audio disc | (D) Solid-state disc |

4(vi). The play time of standard CD is more than that of standard DVD.

(True/False)

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

5(i). A TV remote control works based on _____.

- | | |
|---|--|
| (A) Frequency modulated RF | (B) Pulse code modulated ultraviolet light |
| (C) Pulse code modulated infrared light | (D) Pulse code modulated RF |

5(ii). How many electron guns are there in a colour TV picture tube.

- | | |
|-------|-------|
| (A) 4 | (B) 3 |
| (C) 2 | (D) 1 |

5(iii). A varactor diode is used in _____.

- | | |
|------------------|----------------------------|
| (A) IF amplifier | (B) RF amplifier |
| (C) TV tuner | (D) Remote control of a TV |

5(iv). _____ is used to amplify the radio signal received by the antenna.

(RF Amplifier/IF amplifier)

5(v). What is the function of a TV tuner ?

5(vi). _____ is used to separate the horizontal sync pulse from the composite signal in a TV receiver.

- | | |
|--------------------|----------------|
| (A) Differentiator | (B) Integrator |
| (C) Diode detector | (D) Mixer |

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

6(i). The image generated by a scanner is not clear. Which of the following activity should be tried to rectify the issue ?

- | | |
|--|--|
| (A) Check for proper software installation | (B) Check the scanner pulley and motor |
| (C) Check the power supply | (D) Clean the mirror and glass |

6(ii). The photosensitive drum's base in a laser printer is made of :

- | | |
|---------------|--------------|
| (A) Aluminium | (B) Copper |
| (C) Plastic | (D) Bakelite |

6(iii). In a microwave oven, microwaves are generated by :

- | | |
|----------------------|--------------------------|
| (A) Klystron | (B) Magnetron |
| (C) Cathode-ray tube | (D) Travelling-wave tube |

6(iv). In a fax machine, _____ is used to transform the analog pattern of black and white areas of pages into digital patterns.

- | | |
|---------------------------------|---------------------------------|
| (A) Analog-to-digital converter | (B) Digital-to-analog converter |
| (C) Charge-coupled device | (D) Varactor diode |

6(v). In telephone systems, a transmission and signalling channel or path between telephone subscribers, terminal equipment and the serving central office or another piece of terminal equipment is called _____.

- | | |
|----------------------|------------------------|
| (A) Loop | (B) Subscriber channel |
| (C) Terminal channel | (D) Signalling line |

6(vi). Laser printers are impact printers.
(True/False)

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. What do you understand by the term “communication” ?

8. Explain any four parameters of an individual's personality related to the Big Five Factor Model.

9. What is data sorting in ICT ?

10. State any two environmental barriers to entrepreneurship.

11. Define the term “green jobs” according to the UNEP.

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

12. What is the function of HF biasing ?

13. What are the faults that may occur in a fax machine ?

14. Write a short note on occupational health.

15. What are the advantages of LED television receiver over conventional CRT or LCD-based television receiver ?

16. Write a short note on a squawker.

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

17. Describe any three subsections of a TV receiver and the problems associated with each subsection of the TV receiver.

18. Explain the construction and working principle of moving-coil loudspeaker.

19. Draw a flow chart for fault-finding and the rectification of a recorder/player.

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

20. Write important safety tips to help avoid injuries in a workplace.

21. Explain working principle, merits, demerits and application of a piezoelectric microphone.

22. Explain working principle of a TV transmitter. Also, draw its block diagram.

23. With the help of a block diagram, explain working principle of a tape-recorder system.

24. Explain different types of telephones.

- End of Question Paper -