

CBSE Class 12 Electronic Technology 2019 - Set 314



Question Paper

Conducted by the Central Board of Secondary Education (CBSE)

Time Allowed: 2.5 Hours

Maximum Marks: 50

General Instructions

- (i) This question paper contains 31 questions, out of which the candidate needs to attempt 23.
- (ii) The paper is divided into two sections.
- (iii) Section A: Answer any ten of Questions 1–12 (1 mark each), any five of Questions 13–19 (2 marks each), and any five of Questions 20–26 (3 marks each).
- (iv) Section B: Answer any three of Questions 27–31 (5 marks each).

Section A

Attempt any ten questions. Each question carries 1 mark.

1. Occupational hazards mostly occur due to

- (A) Automation of process (B) Negligence to safety
(C) Poor quality control (D) Climate changes

2. Occupational health focuses on employee's physical well-being, mental well-being and

- (A) Economic well-being (B) Dependents' needs
(C) Educational needs (D) Social well-being

3. A microphone that works on generator principle is

- (A) Condenser microphone (B) Moving coil microphone
(C) Electret microphone (D) Carbon microphone

4. A music system is not generating low frequency range signals. The problem may be with

- (A) Tweeter (B) Squawker
(C) Woofer (D) Tweeter or Squawker

5. A horn is used in loud speaker

- (A) To improve the loud speaker impedance (B) To improve the high frequency response
(C) For better coupling of sound into air (D) All of the above

6. The Magnetic field in an audio tape recorder head is produced while recording by

- (A) Passing direct current through the head (B) Sinusoidal voltage across the head
(C) Using a permanent magnet (D) Passing electric equivalent of sound through the head

7. Standard DVD/CD diameter is

- (A) 12 cm (B) 8 cm
(C) 10 cm (D) 14 cm

8. For reading data from a CD

- (A) LED light is used (B) LCD light is used
(C) Laser beam is used (D) Magnetic field is used

9. In a TV system, modulation used for sound signal is

- (A) Amplitude modulation (B) Frequency modulation
(C) Phase modulation (D) Vestigial side band modulation

10. The difference between the picture IF and sound IF sub carriers is

- (A) 4 MHz (B) 5 MHz
(C) 5.5 MHz (D) 15 MHz

11. In an LCD display, the source of light is
(A) Cold cathode fluorescent lamp (B) Incandescent lamp
(C) Mercury lamp (D) Sodium vapour lamp
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12. A photosensitive drum is used in a
(A) Dot matrix printer (B) Inkjet printer
(C) Laser printer (D) Thermal printer
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Attempt any five questions. Each question carries 2 marks.

13. What is the working principle of a crystal microphone ?
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14. What do you mean by dynamic range of a loud speaker ?
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15. What is the function of ADC in a CD recording system ?
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16. What precautions must be taken while choosing a component to replace a faulty component ?
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17. What is the function of a TV tuner ?
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18. Why is scrambling done in cable TV transmission system ?
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19. In a telephone tone ringer unit, a capacitor is used in series with the ring IC input. What is the purpose of this capacitor ?
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Attempt any five questions. Each question carries 3 marks.

20. What precautions must be taken to prevent electric hazards while repairing an electric equipment ?
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21. What are the different types of Loud Speakers ? Mention their differences.
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22. Draw the block diagram of Disc Recording system and explain its working.
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23. Describe the functions of major parts of a CD/DVD player.
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24. Write a short note on TV receiver remote control.
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25. Write the steps to be followed for routine maintenance of Cable TV system.
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26. Name any three typical problems that occur in a laser printer and give the possible solutions to these problems.
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Section B

Attempt any three questions. Each question carries 5 marks.

27. Explain the construction and working principle of a moving coil loud speaker. Give any two applications of the moving coil loud speaker.

28. Give step-by-step procedure to be followed for fault finding and rectification in recorder/player.

29. Describe how audio signals are recorded and played back in magnetic tapes.

30. Draw the monochrome picture tube and explain its working.

31. What are the possible faults that can occur in a Fax machine ? Suggest possible solutions for the same.

- End of Question Paper -