

CBSE Class 12 Electrical Technology 2020 - Set 312

Question Paper

Conducted by the Central Board of Secondary Education (CBSE)



Time Allowed: 2 Hours

Maximum Marks: 40

General Instructions

- (i) This question paper contains 28 questions in two sections.
- (ii) Section A: Attempt any ten questions from Questions 1–12 (1 mark each), any five from Questions 13–19 (2 marks each), and any five from Questions 20–26 (3 marks each).
- (iii) Section B: Attempt any one question from Questions 27 and 28 (5 marks each).

Section A

Answer any ten questions : $1 \times 10 = 10$

1. Fault in electric iron may be

- | | |
|-----------------------------|------------------------------|
| (A) Earth fault only | (B) Short circuit fault only |
| (C) Open circuit fault only | (D) All of the above faults |

2. Which of the following is generally used in a hot plate ?

- | | |
|-------------------|-----------------------|
| (A) Rotary switch | (B) Timer |
| (C) Thermostat | (D) None of the above |

3. Nichrome strip wound over a triangular mica plate type heating element is used in

- | | |
|-------------------------------|------------------------------|
| (A) Automatic electric kettle | (B) Ordinary electric kettle |
| (C) Both (A) and (B) | (D) None of the above |

4. Exhaust fan is used in

- | | |
|-------------------|----------------------|
| (A) A washroom | (B) A desert cooler |
| (C) A room cooler | (D) Both (A) and (B) |

5. Processes like Soak, Wash, Rinse and Spin can be performed by

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|-------------------------------------|------------------------------------|
| (A) Ordinary washing machine | (B) Semi-automatic washing machine |
| (C) Fully automatic washing machine | (D) None of the above |

6. Thermostat control is used in

- | | |
|------------------------------|-------------------------------|
| (A) Ordinary washing machine | (B) Automatic washing machine |
| (C) Both (A) and (B) | (D) None of the above |

7. The motor generally used in domestic electric washing machine is

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|---|-----------------------|
| (A) Capacitor start capacitor run motor | (B) Reluctance motor |
| (C) Split-Phase motor | (D) None of the above |

8. Defect in curler may be due to

- | | |
|---------------------|-------------------------------|
| (A) Defect in motor | (B) Defect in heating element |
| (C) Defect in cord | (D) Both (B) and (C) |

9. The starting winding of a single-phase induction motor is placed in a

- | | |
|-----------|-----------------------|
| (A) Rotor | (B) Stator |
| (C) Field | (D) None of the above |

10. Defect in motor may be due to

- | | |
|---------------------------------|----------------------|
| (A) Open circuit in the winding | (B) Worn bearing |
| (C) Locking at air gap | (D) All of the above |

11. Universal motor is generally used in
(A) Clothes washing machine (B) Exhaust fan
(C) Both (A) and (B) (D) None of the above

12. When electric equipments are lifted manually, the person should have
(A) Firm footing (B) Straight back
(C) Chin inward (D) All of the above

Answer any five questions. $2 \times 5 = 10$

13. Describe in brief the functions of an O.T.G.

14. Describe in brief the construction of a geyser.

15. Describe the procedure involved in the repair of a defective heat convector.

16. Describe the testing and repairing procedure of a defective blender.

17. Describe the installation procedure of a desert cooler.

18. Describe the common faults and their causes in a vacuum cleaner.

19. Give a brief description of the equipment required to handle heavy electrical machines.

Answer any five questions. $3 \times 5 = 15$

20. What defects can be found in a bowl type room heater, and how can they be removed ?

21. Describe the procedure of testing and repairing of a defective hot plate.

22. Describe the common defects and their causes in an ordinary electric toaster.

23. Explain the construction and working of an ordinary electric washing machine.

24. Draw the circuit diagram of a manual voltage stabiliser and briefly describe its working.

25. Which type of motor is used in a small electric drill machine ? Describe its special features.

26. What precautions are to be taken to avoid an electric shock ? Explain.

Section B

Answer any one question. $5 \times 1 = 5$

27. Explain the defects in a blower type room heater, and how they can be removed.

28. Describe in detail the construction of a pedestal fan and the motor used in it, and also give its uses.

- End of Question Paper -