CBSE Class 12 Electrical Technology 2018 - 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 32 questions in three sections.
(ii) Section A: Answer any eleven questions from Questions 1–15, carrying 1 mark each.
(iii) Section B: Answer any ten questions from Questions 16–27, carrying 2 marks each.
(iv) Section C: Answer any three questions from Questions 28–32, carrying 3 marks each.

Section A

Answer any 11 questions.

1. When a sound element of a reflector type room heater is connected in series with a test lamp, the lamp will

(A) fuse
(B) glow little less
(C) not glow
(D) glow fully

2. Well polished and bright reflector is used in

(A) rod type room heater only
(B) bowl type room heater only
(C) both (a) and (b)
(D) None of these

3. The two elements of a heater are connected in series for

(A) double heat
(B) high heat
(C) medium heat
(D) low heat

4. The type of fault in electric iron may be

(A) open circuit fault only
(B) earth fault only
(C) short circuit fault only
(D) All of these faults

5. Thermostat control is used in

(A) table heater
(B) ordinary electric iron
(C) automatic electric iron
(D) All of these

6. Nichrome strip, wound over mica plate, type of heating element is used in

(A) room heater
(B) non-automatic electric iron
(C) automatic electric iron
(D) Both (b) and (c)

7. In which of the following are heating elements not required ?

(A) Cooking range
(B) Hot plate
(C) Oven
(D) None of these

8. Continuity test of a defective electric toaster may be carried out by

(A) test lamp only
(B) megger only
(C) both (a) and (b)
(D) None of these

9. For operation of an electric toaster the supply required is

(A) AC (B) DC

(C) AC and DC (D) AC or DC

10. Motor used in blower type room heater is

(A) slip-ring induction motor (B) capacitor start and capacitor run motor

(C) universal motor (D) no motor is used in it

11. In the absence of supply, continuity test of the element of a heat convector can be carried out by

(A) test lamp (B) neon tester

(C) both (a) and (b) (D) None of these

12. Separate pump motor is used in

(A) desert cooler (B) blower type room cooler

(C) both (a) and (b) (D) None of these

13. If the motor of a cooler fails to start, the cause may be

(A) open circuit in the cord (B) no supply

(C) open circuit in the motor winding (D) Any of these

14. The running winding of a split-phase motor is placed in the

(A) rotor (B) stator

(C) (a) or (b) (D) None of these

15. Construction of a universal motor is similar to

(A) Single-phase capacitor motor (B) DC shunt motor

(C) DC series motor (D) None of these

Section B

Answer any 10 questions.

16. Describe in brief the functions of an OTG.

17. Describe in brief the method of testing and repairing of a defective hot plate.

18. Explain the working of an automatic toaster.

19. Compare an immersion heater with a geyser.

20. Give the uses of an Electric Kettle and a Coffee Percolator.

21. Describe the procedure of testing and repairing of a bracket fan.

22. Describe the construction of the motor used in a table fan.

23. Describe in brief the procedure of overhauling of a washing machine.

24. Describe the construction and working of a hair dryer.

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

26. Describe the special features of the motor used in a small electric drill machine.

27. Describe in brief Schafer's method used for artificial respiration.

Section C

Answer any 3 questions.

28. Explain the construction and working of an electric mixer.

29. Explain in detail the various defects in an electric grinder.

30. Draw the circuit diagram of a manual voltage stabilizer and explain its working.

31. Explain the construction and working of a shaded-pole motor.

32. Explain the procedure of testing and repairing of a defective universal motor.

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