

ELECTRICAL APPLIANCES (788)

Sample Question Paper

Class XII - 2018-19

Time: 2 Hours

Max. Marks: 40

General Instructions:

1. Question paper is divided into two sections: Section-A and Section- B.
2. **Section–A:**
 - i. Multiple choice question/Fill in the blanks/Direct Questions of 1 mark each. Answer any 10 questions out of the given 12 questions.
 - ii. Very Short Answer of 2 marks each. Answer any 5 questions from the given 7 questions.
 - iii. Short Answer of 3 marks each. Answer any 5 questions from the given 7 questions.
3. **Section–B:** Long/Essay type questions of 5 marks each. Answer any 1 question from the given 2 questions.
4. All questions of a particular section must be attempted in the correct order.
5. Please check that this question paper contains 28 questions out of which 21 questions are to be attempted.
6. The maximum time allowed is 2 hrs.

SECTION –A

Answer any 10 questions out of the given 12 questions:

1. Which among these is the application of universal motors? (1)
 - (a) Vacuum cleaners
 - (b) Fans
 - (c) Hair dryers
 - (d) Washing machines
2. What is the typical value of the capacitor used in ‘capacitor start capacitor run’ induction motor? (1)
 - (a) 5 μ F
 - (b) 40 μ F
 - (c) 300 μ F
 - (d) 1000 μ F
3. Which timer is used in fully automatic machines? (1)
 - (a) Electrical timer
 - (b) Electronic timer
 - (c) Mechanical timer
 - (d) Spring timer
4. What is the first equipment placed in the uninterrupted power supply (UPS)? (1)
 - (a) Inverter
 - (b) Battery
 - (c) Rectifier
 - (d) Any of these

5. The heating element in an electric iron is usually made of (1)
(a) brass.
(b) iron.
(c) nichrome.
(d) platinum.
6. Which type of magnet is used in an electric bell? (1)
(a) Temporary magnet
(b) Permanent magnet.
(c) Electromagnet.
(d) Carbon magnet
7. Which of the following gas is mainly used inside an electric bulb? (1)
(a) Carbon dioxide gas.
(b) Hydrogen gas.
(c) Inert gas.
(d) Helium gas.
8. Type of single phase motor having highest power factor at full load is (1)
(a) Shaded pole type
(b) Capacitor run
(c) Capacitor start
(d) Single phase
9. Which of the following motors is used in hair dryer (1)
(a) Synchronous motor
(b) Shaded pole induction motor
(c) Split phase
(d) Cage induction motor
10. What type of dielectric material is used in capacitors used for fans and for power factor correction? (1)
(a) Oil impregnated paper
(b) Vacuum
(c) Glass
(d) Mica
11. If field current is decreased in shunt dc motor, the speed of the motor (1)
(a) Decrease
(b) Increase
(c) Remains same
(d) None of the above
12. What creates washing action in washing machine (1)
(a) energy
(b) water supply
(c) turbulence
(d) Electricity

Very Short Questions: (2 marks each).

Answer any 5 questions out of the given 7 questions:

13. What are the difference between room cooler and desert cooler. (2)
14. What is the principle of operation of electrical mixer? (2)
15. What are common defects of room heater? (2)
16. What is role of thermostats in heater? (2)
17. What is procedure of testing OTG? (2)
18. What are the causes of fault occurrence is vacuum cleaner? (2)
19. How can we rescue a person from live wire? (2)

Short Questions: (3 marks each).

Answer any 5 questions out of the given 7 questions:

20. Explain the principle and construction of hand drill. What are common faults in hand drill? (3)
21. What is overhauling of washing machine. List few steps for the maintenance of washing machine. (3)
22. Explain construction details of microwave oven. Also explain its working principle. (3)
23. What are the common defects in reflector type room heater? What are the steps to repair reflector type room heater? (3)
24. What is the additional functionality of automatic toaster over common toaster? Explain Automatic toaster in details. (3)
25. Explain Nelson's Arm method of artificial respiration. (3)
26. What do you understand by voltage stabilization? How is it achieved? (3)

SECTION –B

Long/Essay type questions (5 marks each).

Answer any 1 question out of the given 2 questions:

27. What is principle of operation of exhaust fan? Explain the installation of exhaust fan in details. (5)
28. Explain construction and working principle of blower type room heater. (5)