ELECTRICAL APPLIANCES (788)

Sample Question Paper

Class XII - 2018-19

Time:2Hours **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 12questions.*
   - ***ii.*** *Very Short Answer of 2 marks each. Answer any 5 questions from the given 7questions.*
   - ***iii.*** *Short Answer of 3 marks each. Answer any 5 questions from the given 7questions.*
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 2hrs.*

SECTION –A

Answer any 10 questions out of the given 12 questions:

1. Which among these is the application of universal motors? **(1)**

(a) Vacuumcleaners
(b) Fans
(c) Hairdryers
(d) Washingmachines

2. What is the typical value of the capacitor used in 'capacitor start capacitor run' single phase 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 washing machines? **(1)**

(a) Electricaltimer
(b) Electronictimer
(c) Mechanicaltimer
(d) Springtimer

4. What is the first equipment placed in the Uninterrupted Power Supply (UPS)? **(1)**

(a) Inverter
(b) Battery
(c) Rectifier
(d) Any ofthese

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) Temporarymagnet
- (b) Permanentmagnet.
- (c) Electromagnet.
- (d) Carbonmagnet

7. Which of the following gas is mainly used inside an electric bulb? **(1)**
- (a) Carbon dioxidegas.
- (b) Hydrogengas.
- (c) Inert gas.
- (d) Heliumgas.

8. Type of single phase motor having highest power factor at full load is **(1)**
- (a) Shaded poletype
- (b) Capacitorrun
- (c) Capacitorstart
- (d) Singlephase

9. Which of the following motors is used in hair dryer?
- (a) Synchronousmotor **(1)**
- (b) Shaded pole inductionmotor
- (c) Split phase
- (d) Cage inductionmotor

10. What type of dielectric material is used in capacitorsused 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 theabove

12. What creates washing action in washing machine? **(1)**
- (a) energy
- (b) watersupply
- (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. Explain 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 with neat schematic diagram. Also, explain its working principle. **(3)**

23. What are the common defects in reflector type room heater? Write different 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 2questions:

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)**