

Student Name: .....



Roll No.: .....

Questions: 21 Time: 01:00 hh:mm Marks: 30

**Instructions**

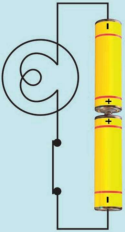
- Honesty is the best policy.
- New section on new page
- Rough work at the last page should be in proper manner too

**SECTION-A**

- Q1. Symbol denotes:  and  1 Mark
- Q2. Resistance and voltmeter respectively. **A** Plug key and switch respectively. **B** Plug key and switch respectively. **C** Load and key respectively. **D** Tapping key and switch respectively. 1 Mark
- Q3. The amount of heat produced in a wire depends on its material: **A** Length **B** Thickness **C** Length and thickness **D** None of these 1 Mark
- Q4. Which of the following devices can be used to break an electric circuit: **A** Cell **B** Bulb **C** Switch **D** None of these 1 Mark
- Q5. Electromagnet is based on: **A** Electro-chemical effect of electric current. **B** Heating effect of electric current. **C** Magnetic effect of electric current. **D** Chemical effect of electric current. 1 Mark
- Q6. The coil of wire contained in an electric heater is known as: **A** Component **B** Element **C** Circuit **D** Spring 1 Mark
- Q7. The combination of two or more cells is called a \_\_\_\_\_. 1 Mark
- Q8. When current is switched 'on' in a room heater, it \_\_\_\_\_. 1 Mark
- Q9. Circuit diagram is a simplified conventional pictorial representation of an \_\_\_\_\_. 1 Mark
- Q10. MCB works on the magnetic effect of current. True/ False. 1 Mark
- Q11. When an electric current flows through a wire, it behaves like a magnet. True/ False. 1 Mark
- Q12. The patterns of magnetic field lines inside a solenoid are parallel straight lines. What does this indicate? 1 Mark
- Q13. If the filament of the bulb is broken, would the circuit be complete? Would the bulb still glow? 1 Mark
- Q14. Explain the function of cell in a circuit. 1 Mark
- Q15. Name the type of mark for which we should look at an electrical appliance before buying. 1 Mark
- Q16. What is a circuit diagram? 1 Mark

**SECTION-B**

- Q16. How do short circuits occur? 2 Marks
- Q17. Name two electric devices for each where, **1.** Heating effect of current is used. **2.** Magnetic effect of current is used. 2 Marks
- Q18. One day, Pinki was ironing the clothes in her room. After half an iron of ironing, the light went off and Pinki went outside to the lobby of her house to check it there was any problem in the household circuit. At the same time, she listened the voice of her 4 years old daughter from the same room where she was ironing the clothes. Her daughter was about to touch the hot electric iron but at the same moment, Pinki entered in the room and pushed her daughter back from that place. **1.** On which effect of electric current, does the electric iron works? **2.** Mention the values showed by Pinki here. 2 Marks
- Q19. Draw the symbols of the following circuit components. **1.** Electric cell. **2.** Switch in off position. **3.** Electric bulb. **4.** Battery. 3 Marks
- Q20. The bulb in the circuit shown in Fig. does not glow. Can you identify the problem? Make necessary changes in the circuit to make the bulb glow. 3 Marks



Q21. Distinguish between the following:  
Cell and Battery