

## Chapter 14

### MULTIPLE CHOICE QUESTIONS

1. (a)
2. (c)
3. (c)
4. (b)
5. (d)

### VERY SHORT ANSWER QUESTIONS

6. Low melting point.
7. Miniature Circuit Breaker (MCB).
8. (i) conductor (ii) chemicals stored  
(iii) safety device (iv) battery
9. (i) Battery (ii) Fuse  
(iii) Torch (iv) Switch
10. No. The towel may burn due to the heat produced by the bulb. Besides, it will also result in wastage of electric energy.
11. CFLs do not waste electricity as heat.
12. To check the excessive flow of electric current.

### SHORT ANSWER QUESTIONS

13. No, a geyser and a television set require different amount of current. Therefore the fuse used in these will be of different ratings.
14. Heating effect – Geyser, room heater.  
Magnetic effect – Electric bell, Cranes to lift magnetic material.
15. The child may put his/her fingers into the socket and he/she may get an electric shock which could be fatal.
16. Paheli's electromagnet will attract more pins as it has more number of turns of wire on it and thus a stronger electromagnet.

## LONG ANSWER QUESTIONS

17. Some of the questions can be
- (i) Why does the nail attract the pins?
  - (ii) What will happen if we connect more cells in the circuit?
  - (iii) What will happen if we use some other material like a straw in place of the nail?
  - (iv) What will happen if we wrap the wire on the nail more tightly?

or

Any other appropriate question.

18. (i) No, the amount of heat produced in both the cases will not be equal. Amount of heat produced in a wire depends upon the length of the wire.
- (ii) No, the amount heat produced in the wire depends upon the thickness of the wire.

19. **Hint:** Working of an electric bell.



20. (i)  $\frac{+}{-} \mid =$
- (ii)  $\text{---} \diagup \text{---}$
- (iii)  $\text{---} \bigcirc \text{---}$
- (iv)  $\text{---} \mid \text{---} \mid \text{---} \mid \text{---}$