

## Chapter 13

### MULTIPLE CHOICE QUESTIONS

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

### VERY SHORT ANSWER QUESTIONS

6. (i) two  
(ii) more
7. The pins are made of stainless steel which is a non/magnetic material.
8. By using a magnet. If it has iron powder they will stick on to the magnet.
9. (1) The end of the magnet has more iron filings attached to it.  
(2) These regions are called poles of the magnet.

### SHORT ANSWER QUESTIONS

10. (a) A  
(b) B because there are no iron filings sticking to it.
11. If the front of the toy car gets attracted to the north pole of the given magnet then it is the south pole of the bar magnet hidden inside the car.
12. (a) ii, iii and iv  
(b) iii  
(c) i  
(d) iii

13. **Hint:**

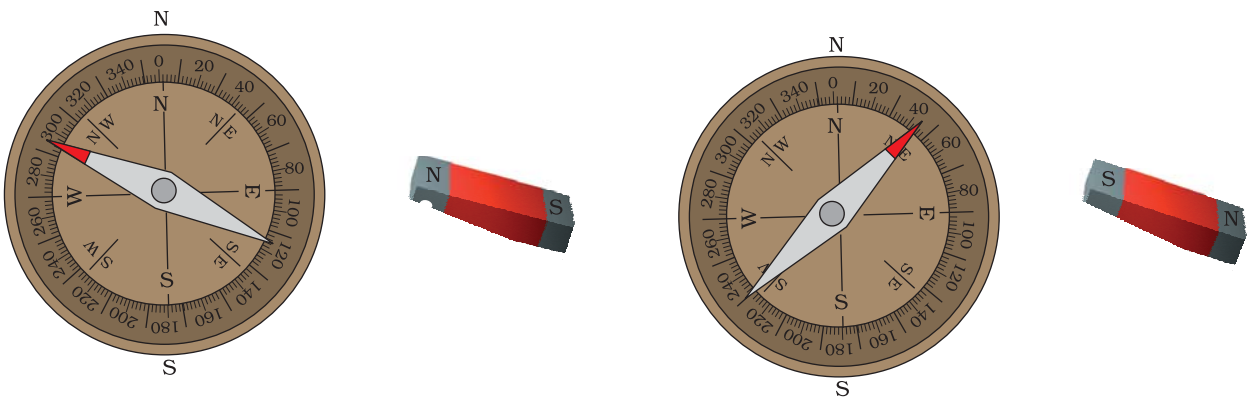
- (1) By suspending the metal bars
- (2) By attracting iron filings
- (3) Using another magnet

### LONG ANSWER QUESTIONS

14. **Hint:** The magnet with known poles will attract and repel two ends of a magnet and attend both the end of an ordinary bar. (Test for repulsion)
15. **Hint:** By rubbing the iron with a magnet as shown in the figure below.



16. The magnetic needle of the compass will get deflected.



17. **Hint:** Magnetise the needle and set it in a way that it may rotate freely suspend it.

18. **Hint:** The magnetic properties are induced into the iron bar and it acts like a magnet till the magnet is kept near it.
19. **Hint:** By the test of repulsion



20. **Hint:**

U shaped magnet– One metal plate is placed across the two poles of the U shaped magnet.



Bar magnet– Use two metal plates and one wooden block, arrange them as shown in the figure

