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 fillings 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

Answers 135

13. **Hint:**

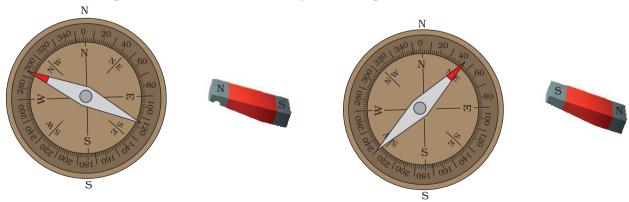
- (1) By suspending the metal bars
- (2) By attracting iron filings
- (3) Using another magnet

Long Answer Questions

- 14. **Hint:** The magnet with known poles will attract and repeat 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.

136 Exemplar Problems

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

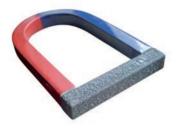
19. **Hint:** By the test of repulsion





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

