VERY SHORT ANSWER TYPE QUESTIONS

1. Name the compound of iron contained in lode stone.
Ans: The compound of iron is iron oxide or magnetite.

2. Name the shepherd after which magnet was named.
Ans: Magnes.

3. How can you separate a magnetic substance from a mixture?
Ans: By using a bar magnet, the magnetic substance is separated from mixture.

4. At which place on a magnet, its magnetic force is maximum?
Ans:. At poles.

5. In which direction does a suspended magnet come to rest?
Ans: Magnet comes to rest in N-S (north-south) direction.

6. What happens when N-pole of a magnet is brought near the N-pole of a suspended magnet?
Ans: There is repulsion between these two magnets as there is repulsion between like poles.

SHORT ANSWER TYPE QUESTIONS

1. Draw the diagram of (a) Bar magnet (b) Horse-shoe magnet.
Ans:

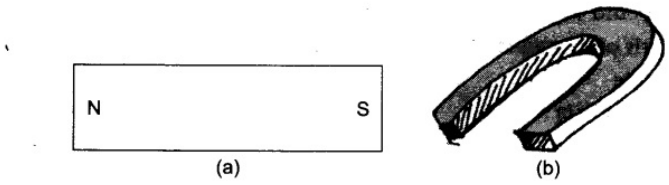

Fig. 13.11 (*a*) Bar magnet (*b*) Horse-shoe magnet

2. Identify magnetic and non-magnetic substances from the list given below: *Iron, Steel, Nickel, Plastic, Wood, Copper and a Stainless Steel spoon*
Ans:

Magnetic substance	*Non-magnetic substance*
Iron, steel, nickel	Plastic, wood, copper, stainless steel spoon

3. Draw a diagram of a magnetic compass.
Ans:

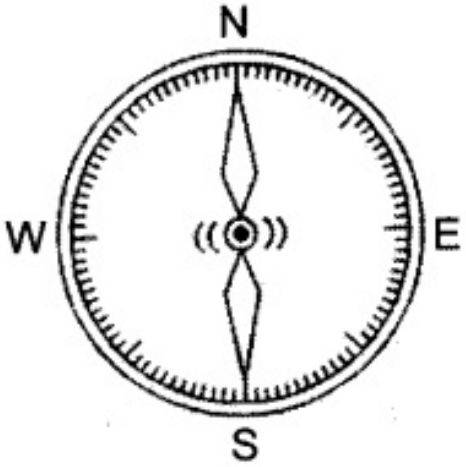

Fig. 13.12

4. Write main properties of a magnet.
Ans:
(i) Magnet has two poles—south pole and north pole.
(ii) Poles of magnet cannot be isolated.
(iii) Like poles repel each other and unlike poles attract each other.
(iv) Freely suspended magnet aligns in N-S direction.

5.Write two methods by which a magnet can be demagnetised.
Ans:
(1) By hammering the magnet strongly.
(2) By heating a magnet strongly and keeping it in the east-west direction.

6. It is advised to keep the magnets away from television, mobiles, CD and computers Explain why?
Ans: Television, mobiles, CD, computers and many more devices are made up of magnetic materials and magnets in it. If you bring a magnet closer to it then it will spoil these devices.

7. Few iron nails and screws got mixed with the wooden shavings while a carpenter was working with them.How can you help him in getting the nails and screws back from the scrap without wasting his time in searching with his hands?
Ans: With the help of a magnet we can attract all iron nails and screws and can separate them from the wooden shavings. As iron nails and screws are magnetic materials and will get attracted to the magnet,whereas wooden shavings are non-magnetic.

8. It is said that repulsion is a sure test for magnetism. Why is it so?
Ans: To identify the magnet, repulsion (like poles of two magnets repel) is the only test which will let you know whether the given rod is an iron rod or a bar magnet. Because a magnet attracts an iron object and unlike poles of magnets also attract each other.

9. A given bar magnet was broken into pieces. Where will be its North and South pole?

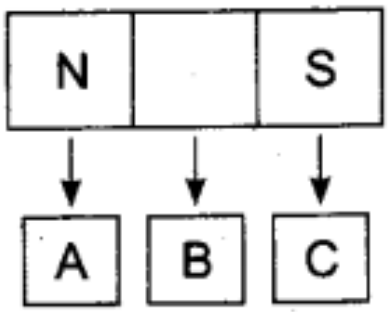

Fig. 13.13

Ans: If you cut a bar magnet into pieces then the end labelled as North remains north and the other end formed will be south. Similarly the end that was pointing south will be south pole and its opposite end will be the new north pole.

10.You are given two rods. Out of these, one is an iron rod and the other one is magnet, how will you identify these rods?
Ans: Take both the rods and suspend them separately. Bring one end of a bar magnet close to both the ends of the suspended rod. If it shows attraction at both the ends then it is an iron rod. If it shows attraction at one end and repulsion at the other end then it is a bar magnet.

LONG ANSWER TYPE QUESTIONS
1. Show that a magnet has two poles. What are the properties of the poles of a magnet?
Ans. We know that pole is the point where the strength of the magnet is maximum. So more and more iron particles will be attracted at poles of a magnet when we bring a magnet near the iron particles. We will observe the crowdness of particles at the ends of magnet. This indicates the presence of two poles in a magnet. Hence poles are present in a magnet in pair. If a magnet is divided into two parts, each part also possesses a pair of poles.

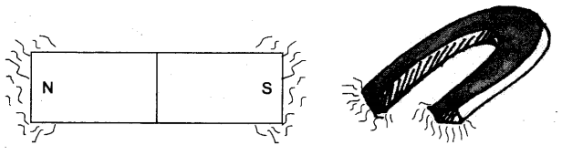

Fig. 13.14 Crowdness of iron particles around poles

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