Short Answer Questions

Q.1. Four identical iron bars were dipped in a heap of iron filings one by one. The figures given below show the amount of iron filings sticking to each of them.

A.


B.

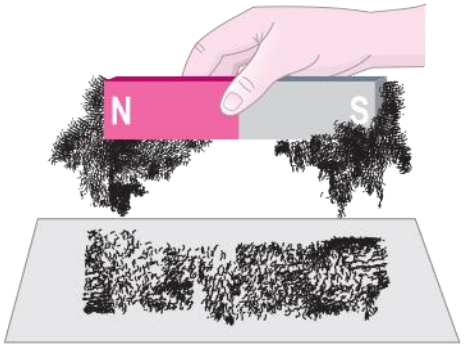

C.


D.


(i) Which of the iron bars is likely to be the strongest magnet?
(ii) Which of the iron bars is not a magnet? Justify your answer.

Ans. (i) A
(ii) B because there are no iron filings sticking to it.

Q.2. Boojho dipped a bar magnet in a heap of iron filings and pulled it out. He found that iron filings got stuck to the magnet as shown. [*NCERT Exemplar*]



(i) Which regions of the magnet have more iron filings sticking to it?
(ii) What are these regions called?

Ans. (i) The end of the magnet has more iron filings attached to it.
(ii) These regions are called poles of the magnet.

Q.3. Distinguish between the following.

Q. Magnetic materials and Non-magnetic materials

Ans.

S. No.	Magnetic materials	Non-magnetic materials
1	Materials which get attracted towardsa magnet. For example, iron, copper, etc.	Materials which do not get attractedtowards magnets. For example, steel, wood, etc.

Q. Natural magnets and Artificial magnets

Ans.

S. No.	Natural magnets	Artificial magnets
1	A magnet which comes naturally from the earth. For example, lodestone.	Magnets produced by the action of electrical circuits. For example, electromagnet.

Q.4. A toy car has a bar magnet laid hidden inside its body along its length. Using another magnet how will you find out which pole of the magnet is facing the front of the car? [*NCERT Exemplar*]

Ans. 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.

Q.5. You are provided with two identical metal bars. One out of the two is a magnet. Suggest two ways to identify the magnet. [*NCERT Exemplar*]

Ans.

i. By suspending the metal bars
ii. By attracting iron filings
iii. Using another magnet (*Any two*)

Q.6. Study the pictures carefully and answer the questions that follow.

Will the two magnets attract or repel each other? Why?

Ans. The two magnets will repel each other because like poles repel.

Q.7. Write four uses of magnets.

Ans.

i. In magnetic compass to find direction;
ii. In factories to lift heavy masses;
iii. Used in construction of telephones;
iv. To separate magnetic materials from non-magnetic materials.

Q.8. Boojho kept a magnet close to an ordinary iron bar. He observed that the iron bar attracts a pin as shown below.

What inference could he draw from this observation? Explain.

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

Q.9. How can a magnet be demagnetised?

Ans. Magnets can be demagnetised by hammering, heating to red hot or by dropping from some height.