Note: (1) Think and Answer (2) Write proper answers for long answer questions

Name: **Date:**

Areas of Improvement:

Performance in Previous Test			
Date	**Subject**	**Chapter**	**%**
1st July 2024	Math	Whole Number	69.32 %
4th July 2024	Science	Components of food	65.90 %
10th July 2024	Social	Solar system	50 %

Maximum Marks (Objective)	**17**
Marks Obtained	
%	
Maximum Marks (Subjective)	**32**
Marks Obtained	
%	
Maximum Marks	**49**
Marks Obtained	
%	

Parent Signature	**Parent Signature**

Section A (Objective Questions) [17 Marks]

A. Multiple Choice Questions: [0.5 x 18 = 9]

1. Observe pictures A and B, given in fig 13.1, carefully.

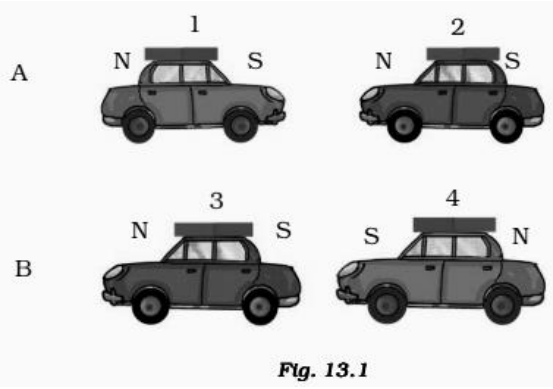

Fig. 13.1

Which of the following statement is correct for the above-given pictures?
(a) In A, cars 1 and 2 will come closer, and in B, cars 3 and 4 will come closer.
(b) In A, cars 1 and 2 will move away from each other, and in B, cars 3 and 4 will move away.
(c) In A, cars 1 and 2 will move away, and in B, 3 and 4 will come closer to each other.
(d) In A, cars 1 and 2 will come closer to each other and in B, 3 and 4 will move away from each other.

2. The arrangement to store two magnets is shown in figures (a), (b), (c) and (d) in fig 13.2. Which one of them is the correct arrangement?

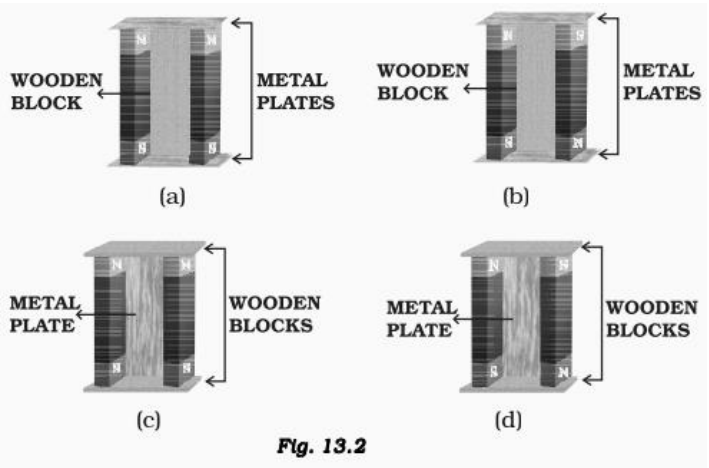

Fig. 13.2

3. Three magnets A, B and C, were dipped one by one in a heap of iron filing. Figure 13.3 shows the amount of iron filing sticking to them.

The strength of these magnets will be

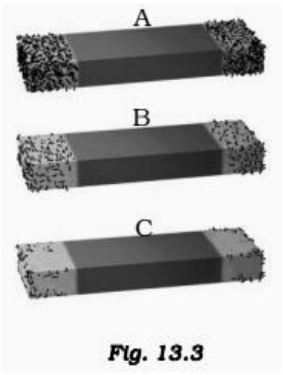

Fig. 13.3

(a) A > B > C

(b) A < B < C

(c) A = B = C

(d) A < B > C

4. The north pole of a magnet can be identified by
(a) Another magnet having its poles marked as North pole and South pole.
(b) Another magnet, no matter whether the poles are marked or not.
(c) Using an iron bar.
(d) Using iron filings.

5. A bar magnet is immersed in a heap of iron filings and pulled out. The amount of iron filing clinging to the
(a) North Pole is almost equal to the South Pole.
(b) North pole is much more than the South Pole.
(c) North pole is much less than the South Pole.
(d) Magnet will be the same all along its length.

6. If we suspend a magnet freely, it will settle in .

a) east-west direction
b) north-south direction
c) north-east direction
d) east-south direction

7. Making a magnetic substance a magnet by bringing it closer to another magnet without touching it, is

a) magnetic induction method
b) single touch method
c) double touch method
d) electrical method

8. An example of natural magnet is

a) iron
b) steel
c) lodestone
d) none of above

9. The artificial magnet used to detect direction in the laboratory is

a) U-shaped magnet
b) horseshoe magnet
c) electromagnet
d) magnetic compass

10. A bar magnet is cut into four pieces. Each piece is:

(a) a complete magnet

(b) two pieces have only the north pole

(c) two pieces have only the south pole

(d) demagnetized

11. A steel bar can be magnetized permanently by rubbing a bar magnet:

(a) along its length

(b) at its ends

(c) at its center

(d) none of these

12. An artificial magnet used for finding geographic is known as :

(a) electromagnet

(b) horseshoe magnet

(c) magnetic needle

(d) bar magnet

13. The surest test of magnetism is:

(a) attraction

(b) repulsion

(c) (a) and (b) both

(d) none of these

14. The magnetic south pole of the earth is situated near:

(a) geographic south pole

(b) geographic north pole

(c) geographic east

(d) geographic west

15. Magnetic lines of force around a bar magnet :

(a) are closed continuous curves

(b) travel from north to south outside the magnet

(c) bend around the length of magnet

(d) all the above

16. The magnetic compass is placed in a circular:

(a) iron case

(b) stainless steel case

(c) aluminium case

(d) nickel case

17. For plotting a magnetic field around a bar magnet, the device used is

(a) magnetic needle

(b) magnetic compass

(c) tracing needle

(d) none of these

18. Magnetic lines of force can pass through:

(a) only magnetic substances

(b) only non-magnetic substance

(c) both (a) and (b)

(d) none of the above

B. Fill in the blanks

[0.5 x 5= 2.5]

1. The space around a magnet where its influence can be detected is called _____.

2. The close continuous _____in a magnetic field is called a magnetic lines of force.

3. The magnetic north pole of the earth is towards the geographic _____.

4. The power of attraction of a _____.

5. A device used by the sailors to find the direction in which their ship is moving is called _____.

C. Statements given below are incorrect. Write the correct statements: [0.5 x 5= 2.5]

1. The magnetic field around a bar magnet is directed from the south pole toward the north pole.

2. Earth's magnetic strength is weakest near the geographical poles

3. The magnetic south pole of the earth is near the geographic south pole.

4. The strength of a magnet is strongest in the middle and weakest at its ends.

5. The magnetic lines of force around a bar magnet mutually attract each other.

Section B (Any 3 questions only) [1 x 3 = 3]

II. Very Short Answer Questions:

Q1. Four identical iron bars were dipped in a heap of iron filings one by one. The figure shows the amount of iron filings sticking to each of them.

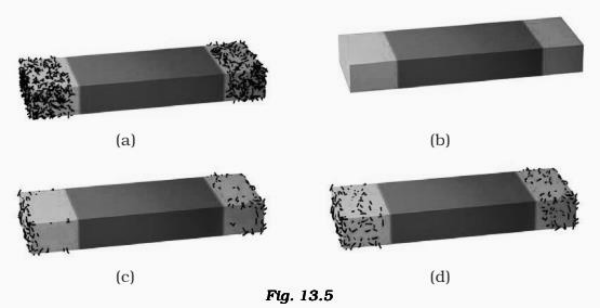

Fig. 13.5

(a) Which of the iron bar is likely to be the strongest magnet?

(b) Which of the iron bars is not a magnet? Justify your answer.

Q2. 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?

Q3. You are provided with two identical metal bars. One out of the two is a magnet. Suggest two ways to identify the magnet.

Q4. What are magnetic and non-magnetic substances? Give two examples of each.

Q5. What are natural and artificial -magnets?

Section C (Any 4 questions only) [2 x 4 = 8]

III. Short Answer Questions:

Q6. How is an artificial magnet prepared from a natural magnet?

Q7. How can the magnetic properties of a magnet be destroyed?

Q8. Why does a freely suspended magnet always rest in a north-south direction?

Q9. Draw diagrams of the artificial magnets of four different shapes.

Q10. Why are the artificial magnets preferred over the natural magnets?

Q11. Explain the attractive properties of a magnet with the help of an experiment.

Q12. How are the magnets kept safely? What is the role of keepers in storing the magnets?

Section D (any 7 questions only) [3 x 7 = 21]

IV. Long Answer Questions:

Q13. Three identical iron bars are kept on a table. Two out of three bars are magnets. In one of the magnets, the North-South poles are marked. How will you find out which of the other two bars is a magnet? Identify the poles of this magnet.

Q14. Describe the steps involved in magnetizing an iron strip with the help of a magnet.

Q15. Figure 13.6 shows a magnetic compass. What will happen to the position of its needle if you bring a bar magnet near it? Draw a diagram to show the effect on the needle on bringing the bar magnet near it. Also, draw the diagram to show the effect when the other end of the bar magnet is brought near it.

Fig. 13.6

Q16. A bar magnet is cut into two pieces, A and B, from the middle, as shown in figure 13.8.

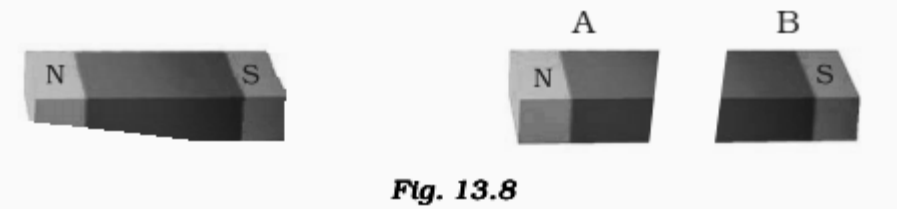

Fig. 13.8

Will the two pieces act as individual magnets? Mark the poles of these two pieces. Suggest an activity to verify your answer.

Q17. Suggest an arrangement to store a U-shaped magnet. How is this different from storing a pair of bar magnets?

Q18. State two ways of magnetizing an iron piece.

Q19 . State four important properties of a bar magnet.

Q20. How will you make an iron bar electromagnet? Draw a diagram showing the polarities of the electromagnet.

Q21. State four important uses of a magnet.

Q22. State three differences between the temporary and permanent magnets.