


## Multiple Choice Questions

1. **Which of the following is a natural magnet?**
   (a) Bar magnet
   (b) Ring magnet
   (c) Lodestone
   (d) Electromagnet

2. **Materials that are attracted by a magnet are called**
   (a) Conductors
   (b) Insulators
   (c) Magnetic materials
   (d) Non-magnetic materials

3. **Which metal is strongly attracted by a magnet?**
   (a) Aluminium (b) Copper
   (c) Iron (d) Plastic

4. **The ends of a magnet where attraction is strongest are called**
   (a) Centres
   (b) Faces
   (c) Poles
   (d) Surfaces

5. **When a bar magnet is freely suspended, it always rests in the**
   (a) East–West direction (b) North–South direction
   (c) South–East direction (d) Random direction

6. **The device used to find directions using a magnet is called**
   (a) Ammeter (b) Galvanometer
   (c) Magnetic compass (d) Thermometer

7. **Which of the following pairs of poles will repel each other?**
   (a) North–South
   (b) South–North
   (c) North–North
   (d) North–Iron

8. **Which property helps us identify whether an object is a magnet or not?**
   (a) Attraction
   (b) Colour
   (c) Repulsion
   (c) Shape

9. **Iron filings stick most strongly to a magnet at its**
   (a) Middle part (b) Surface only
   (c) Poles (d) Entire length equally

10. **Which of the following materials will NOT affect the magnetic effect?**
(a) Iron sheet
(b) Wooden sheet
(c) Steel plate
(d) Nickel rod

## Fill in the blanks :

11. The naturally occurring magnet is called _____.

12. Materials not attracted by a magnet are called _____ materials.

## True / False

13. A magnet can have only one pole.

14. A magnetic compass works because Earth behaves like a magnet.

## Very Short Type Questions

15. What is a magnet?

16. What are magnetic materials?

## Short Type Questions

17. How can you show that a magnet has two poles?

18. What is a magnetic compass and how does it help us?

## Essay Type Questions

19. Explain the properties of magnets with suitable examples.

20. Describe how magnets are used to find directions and explain the working of a magnetic compass.

## HOTS

21. **Assertion (A):** Repulsion is the sure test of magnetism.
**Reason (R):** Repulsion occurs only between like poles of two magnets.
Choose the correct option:
a) Both A and R are true and R is the correct explanation of A
b) Both A and R are true but R is not the correct explanation of A
c) A is true but R is false
d) A is false but R is true




1. **(c)** Lodestone
2. **(c)** Insulators
3. **(c)** Iron
4. **(c)** Poles
5. **(b)** North–South direction
6. **(c)** Magnetic compass
7. **(c)** North–North
8. **(c)** Repulsion
9. **(c)** Poles
10. **(b)** Wooden sheet
11. Lodestone
12. Non-magnetic
13. False
14. True
15. A magnet is an object that attracts certain materials like iron and has two poles.
16. Magnetic materials are substances that are attracted towards a magnet, such as iron, nickel and cobalt.
17. When a magnet is broken into two or more pieces, each piece still has both a North pole and a South pole. This shows that a magnet always has two poles and a single pole cannot exist alone.
18. A magnetic compass is a device used to find directions. It contains a magnetised needle that aligns itself in the north–south direction, helping us identify all other directions accurately.
19. Magnets have several important properties that make them useful in daily life. One major property is attraction, as magnets attract certain materials such as iron, nickel and cobalt. These materials are called magnetic materials. Another important property is that a magnet has two poles, known as the North pole and the South pole. The magnetic force of a magnet is strongest at its poles, which can be observed by the accumulation of iron filings at the ends of a magnet.
20. Magnets also show the property of direction. When a bar magnet is freely suspended, it always comes to rest in the north–south direction. This happens because Earth itself behaves like a giant magnet. Another important property is attraction and repulsion. Like poles of magnets repel each other, while unlike poles attract each other. Repulsion is the sure test of magnetism because attraction can occur between a magnet and an iron object, but repulsion occurs only between two magnets. These properties make magnets useful in compasses, electric motors, and many household devices.

**20.** Magnets have been used to find directions since ancient times, especially by sailors during sea travel. The property that helps in finding directions is that a freely suspended magnet always aligns itself in the north–south direction. The end of the magnet pointing towards the north is called the North pole, while the opposite end is called the South pole.
A magnetic compass is a simple device based on this property. It consists of a small magnetised needle that can rotate freely over a pivot. When the compass is placed on a flat surface, the needle comes to rest in the north–south direction. The dial of the compass is marked with directions, and the needle helps us identify all directions correctly.
The compass works because Earth itself acts like a giant magnet, influencing the direction in which the needle settles.
Magnetic compasses are widely used in navigation, maps and exploration.

**21.** Correct option: a

**Explanation:**Explanation: The assertion is true because repulsion occurs only between like poles of two magnets. The reason is also true and correctly explains why repulsion is considered the sure test of magnetism.