

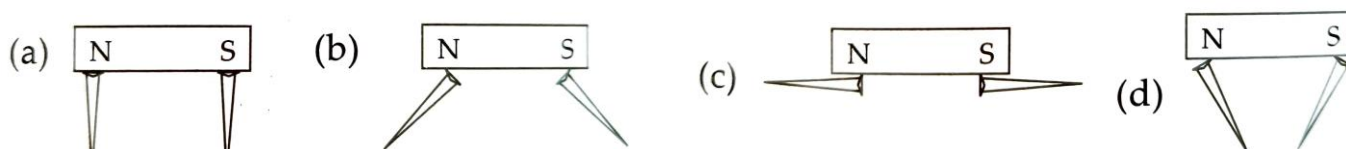
1. The figure shows two pieces of steel P and Q arranged in line with a bar magnet.

Which of the following is true about the magnetic forces on P and Q?

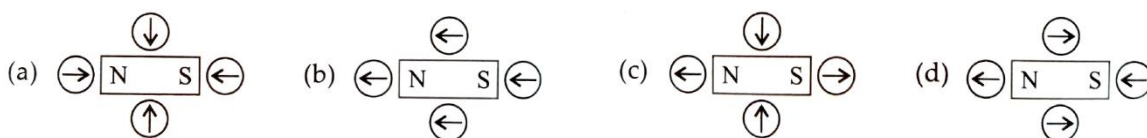
	Force on P	Force on Q
(a)	Attractive	Repulsive
(b)	Attractive	Attractive
(c)	Repulsive	Repulsive
(d)	Repulsive	Attractive



2. Which figure correctly shows two iron nails hanging from a bar magnet?



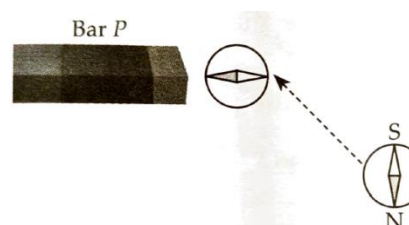
3. In the given diagrams, compasses are used to plot the magnetic field around a bar magnet with poles marked N(North) and S(South). Which of the following diagrams correctly shows the expected field pattern?



4. A plotting compass is moved slowly towards the metal bar P along the path shown in the figure.

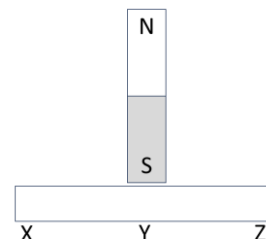
What can you conclude about the metal bar P

- (a) Bar P is a magnetic material.
- (b) Bar P is a magnet.
- (c) Bar P is a non-magnetic material.
- (d) Bar P is either a magnet or a magnetic material.



5. The diagram shows a magnet being used to pick up a steel bar. The S-pole of the magnet is close to the centre Y of the steel bar as shown. What are the poles induced in the steel X bar at X, Y, and Z?

	Poles induced at X	Poles induced at Y	Poles induced at Z
(a)	N	N	N
(b)	N	S	N
(c)	S	N	S
(d)	S	S	S



6. Which of the following are possible sets of polarity when magnetizing a steel bar PQ by the stroking method? (For magnets, N indicates north pole and S indicates south pole)

(i) 1=N, 2=S, P=N, Q=S

(ii) 1=N, 2=S, P=S, Q=N

(iii) 1=S, 2=N, P=S, Q=N

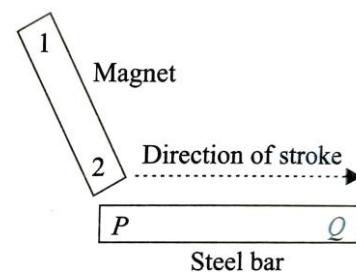
(iv) 1=S, 2=N, P=N, Q=S

(a) (i) and (ii) only

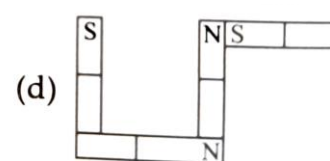
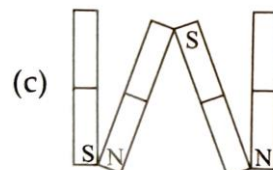
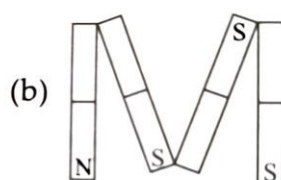
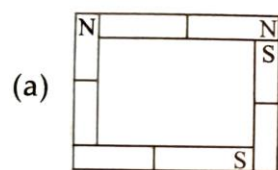
(b) (iii) and (iv) only

(c) (i) and (iii) only

(d) (ii) and (iv) only



7. Which of the following arrangements of four bar magnets is not possible?



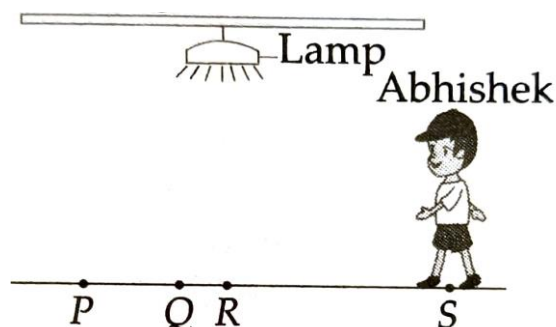
8. Read the given paragraph with few blanks and select the option that correctly fills these blanks. An eclipse occurs when a planet or moon gets in the way of the sun's light. If the moon is completely hidden by the shadow of the earth, it is called __ (i) __. In solar eclipse the __ (ii) __ casts a shadow on the __ (iii) __. Lunar eclipse occurs at __ (iv) __ and solar eclipse occurs only at __ (v) __ day.

	(i)	(ii)	(iii)	(iv)	(v)
(a)	Total Lunar eclipse	Moon	Earth	New Moon	Full Moon
(b)	Total Lunar eclipse	Sun	Moon	Full Moon	New Moon
(c)	Total Lunar eclipse	Earth	Moon	New Moon	Full Moon
(d)	Total Lunar eclipse	Moon	Earth	Full Moon	New Moon

9. Abhishek is walking from point S to point P as shown in the figure.

Which one of the following shows the correct order of the length of Abhishek's shadows from the longest to the shortest when he walks from point S to point P?

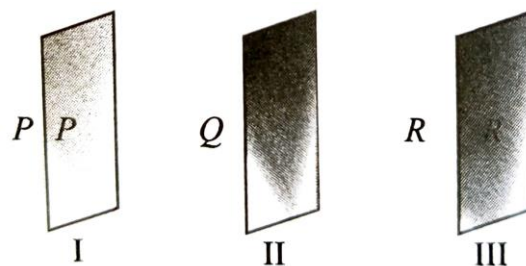
(a) S, P, Q, R (b) P, S, R, Q (c) P, Q, R, S (d) S, Q, P, S



10. Manu placed three different types of materials I, II and III in front of letters P, Q and R as shown in the figure and tried to look from the other side of each.

Which of the following is correct?

- (a) Material II is frosted glass.
- (b) Material I is glass window.
- (c) Material III is wooden door.
- (d) All of these



Assertion - Reasoning

For the questions given below, two statements are given- one labelled Assertion and the other labelled Reason. Select the correct answer from the codes (a), (b), (c), and (d) as given below:

- (a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion.
- (b) Both Assertion and Reason are true but Reason is not the correct explanation of Assertion.
- (c) Assertion is true but Reason is false.
- (d) Assertion is false but Reason is true.

1. **Assertion:** Most of the iron filings stick to the magnet at the ends.

Reason: Magnetic strength is maximum on the poles of a magnet.

2. **Assertion:** We can never have an isolated north pole or south pole.

Reason: Unlike poles attract and like poles repel each other.

3. **Assertion:** The region around a magnet where its magnetic influence is felt is called magnetic field.

Reason: Magnetic influence of a magnet is maximum at its center.

4. **Assertion:** Repulsion, is the surest test of magnetism.

Reason: Like poles of magnets repel each other.

5. **Assertion:** A magnet can attract a copper wire.

Reason: Copper is a non-magnetic material.