

NEET MAGNETISM AND MATTER — BAR MAGNET AS AN EQUIVALENT SOLENOID, MAGNETIC FIELD LINES — PYQS

Max. Marks: 16
Questions: 4

Section A (MCQ) — 4 questions

Q.1 An iron bar of length L has magnetic moment M . It is bent at the middle of its length such that the two arms make an angle 60° with each other. The magnetic moment of this new magnet is :

[NEET (UG) 2024]

- (1) M (2) $\frac{M}{2}$ (3) $2M$ (4) $\frac{M}{\sqrt{3}}$

Scan or tap for the full solution



Q.2 The magnetic moment of an iron bar is M . It is now bent in such a way that it forms an arc section of a circle subtending an angle of 60° at the centre. The magnetic moment of this arc section is

[RE-NEET (UG) 2024]

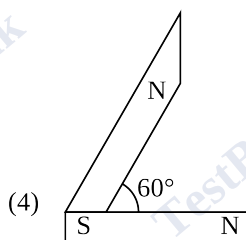
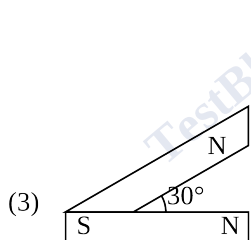
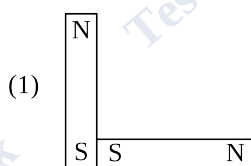
- (1) $\frac{3M}{\pi}$ (2) $\frac{4M}{\pi}$ (3) $\frac{M}{\pi}$ (4) $\frac{2M}{\pi}$

Scan or tap for the full solution



Q.3 Following figures show the arrangement of bar magnets in different configurations. Each magnet has magnetic dipole moment $\vec{m}$. Which configuration has highest net magnetic dipole moment ?

[AIPMT 2014]



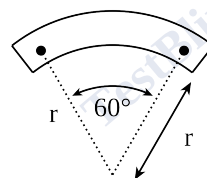
- (1) (1) (2) (2) (3) (3) (4) (4)

Scan or tap for the full solution



Q.4 A bar magnet of length ' l ' and magnetic dipole moment ' M ' is bent in the form of an arc as shown in figure. The new magnetic dipole moment will be

[NEET 2013]



- (1) $\frac{2}{\pi}M$ (2) $\frac{M}{2}$ (3) M (4) $\frac{3}{\pi}M$

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4							
Ans.	2	1	3	4							