

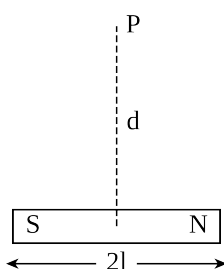
JEE MAIN MAGNETISM AND MATTER — BAR MAGNET AS AN EQUIVALENT SOLENOID, MAGNETIC FIELD LINES — PYQS

Max. Marks: 8

Questions: 2

Section A (MCQ) — 1 question

Q.1



A bar magnet has total length $2l = 20$ units and the field point P is at a distance $d = 10$ units from the centre of the magnet. If the relative uncertainty of length measurement is 1%, then uncertainty of the magnetic field at point P is :

[JEE Main 2025 (Online) 28th January Evening Shift]

- (1) 10% (2) 5% (3) 3% (4) 4%

Scan or tap for the
full solution

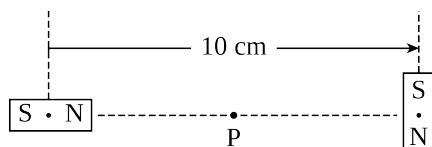


Section B (Numerical) — 1 question

Q.2

Two identical small bar magnets each of dipole moment $3\sqrt{5}$ J/T are placed at a center to center separation of 10 cm, with their axes perpendicular to each other as shown in figure. The value of magnetic field at the point P midway between the magnets is $\alpha \times 10^{-3}$ T. The value of α is _____.
($\mu_0 = 4\pi \times 10^{-7}$ Tm/A)

[JEE Main 2026 (Online) 4th April Evening Shift]



Scan or tap for the
full solution



ANSWER KEY

Section A (MCQ) — 1 question

Ques.	1								
Ans.	3, 4								

Section B (Numerical) — 1 question

Ques.	2								
Ans.	12								