

JEE MAIN ELECTRIC CHARGES AND FIELDS — ELECTRIC FIELD DUE TO POINT CHARGES AND SYSTEMS OF CHARGES — PYQS

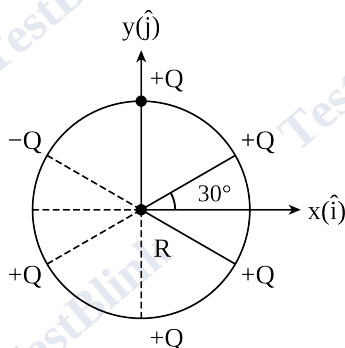
Max. Marks: 8
Questions: 2

Section A (MCQ) — 2 questions

Q.1 Six point charges are kept 60° apart from each other on the circumference of a circle of radius R as shown in figure. The net electric field at the center of the circle is _____.

(ϵ_0 is permittivity of free space)

[JEE Main 2026 (Online) 22nd January Morning Shift]



- (1) $-\left(\frac{5Q}{8\pi\epsilon_0 R^2}\right)(\hat{i} - 3\hat{j})$ (2) $\frac{Q}{4\pi\epsilon_0 R^2}(\sqrt{3}\hat{i} - \hat{j})$
 (3) $-\frac{Q}{4\pi\epsilon_0 R^2}(\sqrt{3}\hat{i} - \hat{j})$ (4) $-\frac{5Q}{8\pi\epsilon_0 R^2}(\hat{i} + \sqrt{3}\hat{j})$

Scan or tap for the full solution



Q.2 A point charge $+q$ is placed at the origin. A second point charge $+9q$ is placed at $(d, 0, 0)$ in Cartesian coordinate system. The point in between them where the electric field vanishes is:

[JEE Main 2025 (Online) 2nd April Morning Shift]

- (1) $(3d/4, 0, 0)$ (2) $(d/4, 0, 0)$
 (3) $(4d/3, 0, 0)$ (4) $(d/3, 0, 0)$

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2									
Ans.	3	2									