

PYQSide

JEE MAIN ELECTROSTATIC POTENTIAL AND CAPACITANCE — DIELECTRICS AND POLARISATION — PYQS

Max. Marks: 8

Questions: 2

Section A (MCQ)

Q.1 Given below are two statements : one is labelled as **Assertion (A)** and the other is labelled as **Reason (R)**.

Assertion (A): Net dipole moment of a polar linear isotropic dielectric substance is not zero even in the absence of an external electric field.

Reason (R): In absence of an external electric field, the different permanent dipoles of a polar dielectric substance are oriented in random directions.

In the light of the above statements, choose the most appropriate answer from the options given below :

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

- (1) Both (A) and (R) are correct and (R) is the correct explanation of (A)
- (2) Both (A) and (R) are correct but (R) is not the correct explanation of (A)
- (3) (A) is not correct but (R) is correct
- (4) (A) is correct but (R) is not correct

Scan or tap for the
full solution



Section B (Numerical)

Q.2 A parallel plate capacitor has charge 5×10^{-6} C. A dielectric slab is inserted between the plates and almost fills the space between the plates. If the induced charge on one face of the slab is 4×10^{-6} C then the dielectric constant of the slab is _____.

[JEE Main 2025 (Online) 7th April Evening Shift]

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ANSWER KEY

Section A (MCQ)

Ques.	1									
Ans.	3									

Section B (Numerical)

Ques.	2									
Ans.	5									