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JEE MAIN ELECTROSTATIC POTENTIAL AND CAPACITANCE — ELECTROSTATIC POTENTIAL AND POTENTIAL DIFFERENCE — PYQS

Max. Marks: 12 **Questions:** 3

Section A (MCQ) — 3 questions

1. Which one of the following is **not** a measurable quantity?

[JEE Main 2026 (Online) 28th January Evening Shift]

(1) Resistance
(2) Voltage difference
(3) Displacement current
(4) Voltage

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2. Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**.
Assertion (A): Work done in moving a test charge between two points inside a uniformly charged spherical shell is zero, no matter which path is chosen.
Reason (R): Electrostatic potential inside a uniformly charged spherical shell is constant and is same as that on the surface of the shell.

In the light of the above statements, choose the correct answer from the options given below.

[JEE Main 2025 (Online) 8th April Evening Shift]

(1) A is true but R is false
(2) Both A and R are true and R is the correct explanation of A
(3) Both A and R are true but R is NOT the correct explanation of A
(4) A is false but R is true

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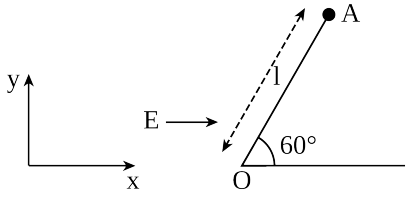
3. A particle of mass 'm' and charge 'q' is fastened to one end 'A' of a massless string having equilibrium length l, whose other end is fixed at point 'O'. The whole system is placed on a frictionless horizontal plane and is initially at rest. If uniform electric field is switched on along the direction as shown in figure, then the speed of the particle when it crosses the x-axis is

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



(1) $\sqrt{\frac{qEl}{2m}}$
(2) $\sqrt{\frac{qEl}{4m}}$
(3) $\sqrt{\frac{qEl}{m}}$
(4) $\sqrt{\frac{2qEl}{m}}$

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ANSWER KEY

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