

PART 1 - PHYSICS

Topic : Electrostatic potential and capacitance

SECTION-A : (Maximum Marks : 4)

This section contains **ONE** question.

Each question has **FOUR** options (A), (B), (C) and (D). **ONE OR MORE THAN ONE** of these four option(s) is(are) correct answer(s).

For each question, choose the option(s) corresponding to (all) the correct answer(s).

Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 ONLY if (all) the correct option(s) is(are) chosen;

Partial Marks : +3 If all the four options are correct but ONLY three options are chosen;

Partial Marks : +2 If three or more options are correct but ONLY two options are chosen, both of which are correct;

Partial Marks : +1 If two or more options are correct but ONLY one option is chosen and it is a correct option;

Zero Marks : 0 If none of the options is chosen (i.e. the question is unanswered);

Negative Marks : -1 In all other cases.

For example, in a question, if (A), (B) and (D) are the ONLY three options corresponding to correct answers, then choosing ONLY (A), (B) and (D) will get +4 marks; choosing ONLY (A) and (B) will get +2 marks; choosing ONLY (A) and (D) will get +2 marks; choosing ONLY (B) and (D) will get +2 marks; choosing ONLY (A) will get +1 mark; choosing ONLY (B) will get +1 mark; choosing ONLY (D) will get +1 mark; choosing no option (i.e. the question is unanswered) will get 0 marks; and choosing any other combination of options will get -1 marks.

1. Two charges $Q_1 = q$ and $Q_2 = mq$ are placed at the points $P_1(a,b)$ and $P_2(ma,mb)$, respectively, in the XY plane, where $a,b \neq 0$ and $m \neq 0,1$. If V_1 is the potential at a point in the XY plane due to charge Q_1 and V_2 is the potential at that point due to charge Q_2 . Correct statement(s) for the points at which $|V_1| = |V_2|$ is/are: [JEE Advanced 2026 Paper 2]

(A) For $m = -1$, locus of these points is $ax + by = 0$.

(B) For $m = 2$, the locus of these points is a circle of radius $\frac{2}{3}\sqrt{a^2 + b^2}$ centered at $(\frac{2}{3}a, \frac{2}{3}b)$

(C) For $m = -2$, the locus of these points is a circle of radius $2\sqrt{a^2 + b^2}$ centered at $(2a, 2b)$

(D) For $m = -3$, locus of these points is $3bx + 3ay = 0$.

Scan or tap for the
full solution



Space for Rough Work

**JEE ADVANCED ELECTROSTATIC POTENTIAL AND
CAPACITANCE — EQUIPOTENTIAL SURFACES —
PYQS**

Test Pattern : JEE (Advanced)

ANSWER KEY

SECTION-A

Ques.	1																
Ans.	A, B, C																