

## PART 1 - MATHEMATICS

Topic : Three dimensional geometry

## 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. Let P be the plane such that it contains the straight line  $\frac{x-1}{2} = \frac{y-3}{3} = \frac{z+2}{1}$  and is perpendicular to the plane  $x + 2y + 3z = 4$ . Let  $P_1$  be the plane which passes through the point (4, 2, 2) and is parallel to P.

Then which of the following statements is (are) TRUE ?

[JEE Advanced 2026 Paper 1]

(A) The equation of the plane P is  $7x - 5y + z = -10$

(B) The distance between the planes P and  $P_1$  is 30

(C) The distance of the plane P from the origin is  $2\sqrt{3}$

(D) The acute angle between the plane P and the plane  $2x + 2y + z = 3$  is  $\cos^{-1}\left(\frac{1}{3\sqrt{3}}\right)$

Scan or tap for the full solution



Space for Rough Work

## JEE ADVANCED THREE DIMENSIONAL GEOMETRY — ANGLE BETWEEN TWO PLANES, LINE AND PLANE (JEE) — PYQS

**Test Pattern : JEE (Advanced)**

## ANSWER KEY

## SECTION-A

[illegible]