

ONE MARK TEST

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ENGLISH MEDIUM

LESSON – 3

TEST - 1

1 If $A = \begin{pmatrix} 1 & 2 & 3 \\ 3 & 2 & 1 \end{pmatrix}$, $B = \begin{pmatrix} 1 & 0 \\ 2 & -1 \\ 0 & 2 \end{pmatrix}$ and $C = \begin{pmatrix} 0 & 1 \\ -2 & 5 \end{pmatrix}$. Which of the following statements

are correct? (i) $AB + C = \begin{pmatrix} 5 & 5 \\ 5 & 5 \end{pmatrix}$ (ii) $BC = \begin{pmatrix} 0 & 1 \\ 2 & -3 \\ -4 & 10 \end{pmatrix}$

(iii) $BA + C = \begin{pmatrix} 2 & 5 \\ 3 & 0 \end{pmatrix}$ (iv) $(AB)C = \begin{pmatrix} -8 & 20 \\ -8 & 13 \end{pmatrix}$

(A) (i) and (ii) only

(B) (ii) and (iii) only

(C) (iii) and (iv) only

(D) all of these

2 For the given matrix $A = \begin{pmatrix} 1 & 3 & 5 & 7 \\ 2 & 4 & 6 & 8 \\ 9 & 11 & 13 & 15 \end{pmatrix}$ the order of the matrix A^T is

(A) 2×3

(B) 3×2

(C) 3×4

(D) 4×3

3 The solution of $(2x - 1)^2 = 9$ is equal to

(A) -1

(B) 2

(C) -1, 2

(D) None of these

4 $\frac{x}{x^2 - 25} - \frac{8}{x^2 + 6x + 5}$ gives

(A) $\frac{x^2 - 7x + 40}{(x - 5)(x + 5)}$

(B) $\frac{x^2 + 7x + 40}{(x - 5)(x + 5)(x + 1)}$

(C) $\frac{x^2 - 7x + 40}{(x^2 - 25)(x + 1)}$

(D) $\frac{x^2 + 10}{(x^2 - 25)(x + 1)}$

- 5 Transpose of a column matrix is
(A) unit matrix (B) diagonal matrix
(C) column matrix (D) row matrix
- 6 The solution of the system $x + y - 3z = -6$, $-7y + 7z = 7$, $3z = 9$ is
(A) $x = 1, y = 2, z = 3$ (B) $x = -1, y = 2, z = 3$
(C) $x = -1, y = -2, z = 3$ (D) $x = 1, y = -2, z = 3$
- 7 Graph of a linear equation is a _____
(A) straight line (B) circle (C) parabola (D) hyperbola
- 8 If number of columns and rows are not equal in a matrix then it is said to be a
(A) diagonal matrix (B) rectangular matrix
(C) square matrix (D) identity matrix
- 9 The values of a and b if $4x^4 - 24x^3 + 76x^2 + ax + b$ is a perfect square are
(A) 100,120 (B) 10,12 (C) -120,100 (D) 12,10
- 10 A system of three linear equations in three variables is inconsistent if their planes
(A) intersect only at a point (B) intersect in a line
(C) coincides with each other (D) do not intersect