



SMART TEST SERIES

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| Name: | | Subject: | Mathematics-11 |
| Roll # : | | Unit(s): | 3, |
| Class: | Inter Part-I | Test: | Type 1 - MCQs Test - Marks=20 |
| Date: | | Time: | |

O Four possible answers A, B, C & D to each question are given. Circle the correct one. (10x1=10)

- 1 $\begin{bmatrix} 7 & 0 \\ 0 & 7 \end{bmatrix}$ matrix is:
(A) Singular (B) Rectangular (C) Scalar (D) Unit
- 2 Every Diagonal matrix is also:
(A) Triangular Matrix (B) Scalar Matrix (C) Rectangular Matrix (D) Symmetric Matrix
- 3 [0] is a _____ matrix:
(A) Square (B) Unit (C) Rectangular (D) Scalar
- 4 If A is a matrix of order 3×2 , then order of A^t is:
(A) 2×3 (B) 3×3 (C) 2×2 (D) 3×2
- 5 If $\begin{bmatrix} x & 1 \\ 1 & 1 \end{bmatrix}$ and $|A|=1$, then $x=$ ____:
(A) 0 (B) 1 (C) 2 (D) 3
- 6 If the matrix $\begin{bmatrix} \lambda & 4 \\ 1 & 2 \end{bmatrix}$ is singular, then $\lambda =$ ____:
(A) 2 (B) 4 (C) 1 (D) 0
- 7 The inverse of a square matrix exists if A is:
(A) Singular (B) Non-singular (C) Symmetric (D) Rectangular
- 8 If $A = \begin{bmatrix} 1 \\ 3 \\ 3 \end{bmatrix}$, then order of A^t is:
(A) 3×1 (B) 1×3 (C) 3×3 (D) 1×1
- 9 If order of a matrix A is 2×3 and of matrix B is 3×3 then order of AB is:
(A) 3×2 (B) 2×2 (C) 3×3 (D) 2×3
- 10 $\begin{bmatrix} k & 0 \\ 0 & k \end{bmatrix}$ is:
(A) zero matrix (B) non-diagonal matrix (C) identity matrix (D) scalar matrix
- 11 The transpose of a row matrix is a:
(A) column matrix (B) diagonal matrix (C) zero matrix (D) scalar matrix
- 12 If $|A| \neq 0$, then A is:
(A) singular matrix (B) non-singular matrix (C) zero matrix (D) identity matrix
- 13 If A is non-singular square matrix, then AA^{-1} equals:
(A) A (B) A^{-1} (C) 0 (D) I
- 14 If A and B are two non-singular matrices then $(AB)^{-1}$ is equal to:
(A) $A^{-1}B^{-1}$ (B) $B^{-1}A^{-1}$ (C) BA (D) AB
- 15 A square matrix $A = [a_{ij}]$ is called symmetric if:
(A) $A^t = -A$ (B) $A^t = A$ (C) $A^t = A^{-1}$ (D) $A = (A^t)^{-1}$
- 16 If $A = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$ and $B = \begin{bmatrix} ka_{11} & ka_{12} \\ ka_{21} & ka_{22} \end{bmatrix}$, then $|B|$ is equal to:
(A) $k|A|$ (B) $k^2|A|$ (C) $\frac{1}{k}|A|$ (D) $\frac{1}{k^2}|A|$
- 17 If $\begin{bmatrix} 1 & -2 & 3 \\ -2 & 3 & 1 \\ 4 & -3 & 2 \end{bmatrix}$ then A_{33} equals:
(A) -1 (B) 1 (C) 7 (D) -7
- 18 All the entries of a column of a square matrix A are zero then:
(A) $|A| > 0$ (B) $|A| < 0$ (C) $|A| = 0$ (D) None of these
- 19 If $A = \begin{bmatrix} 2 & 1 \\ 6 & 3 \end{bmatrix}$, then cofactor of 6 is:
(A) 1 (B) -1 (C) -6 (D) 3
- 20 The Trivial solution of homogeneous linear equations is:
(A) (1,0,0) (B) (0,1,0) (C) (0,0,1) (D) (0,0,0)