

ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	The square matrix A is skew Hermitian when $(A)' =$	A. A B. A' C. $-A$ D. A
2	A matrix with a single column is called	A. Column matrix B. Row matrix C. Identity matrix D. Null matrix
3	Question Image	A. 3×1 B. 1×3 C. 3×3 D. 1×1
4	If A is any matrix then its additive inverse is	A. A B. A^{-1} C. A^{-1} D. $-A$
5	Question Image	
6	Question Image	A. I B. $14I$ C. 0 D. None of these
7	Question Image	
8	Question Image	D. all are correct
9	If the trace of matrix A is 5, then the trace of the matrix $3A$ is	A. $3/5$ B. $5/3$ C. 8 D. 15
10	For any positive integer n	A. $ABn = BnA \Leftrightarrow AB = BA$ B. $ABn = BnA \Leftrightarrow A, B$ are square matrices and $AB = BA$ C. $ABn = BnA \Leftrightarrow A + B$ D. $ABn = BnA \Leftrightarrow A$ and B are square matrices
11	A square matrix $A = [a_{ij}]$ is lower triangular matrix when	A. $a_{ij} = 0$ for all $i < j$ B. $b_{ij} = 0$ C. $c_{ij} = 0$ D. $d_{ij} = 0$
12	Trivial solution of homogeneous linear equation is	A. $(0, 0, 0)$ B. $(1, 2, 3)$ C. $(1, 3, 5)$ D. a, b and c
13	The transport of a square matrix is a	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
14	A diagonal matrix in which the diagonal elements are equal is called a	A. Null matrix B. Identity matrix C. Scalar matrix D. Row matrix
15	Question Image	A. 6, -12, -18 B. -6, 4, 9 C. -6, -4, -9 D. -6, 12, 18
16	If A is singular then $ A =$ _____	A. 1 B. 0 C. 2 D. None of these
		A. $m \times m$

17 If $A = |a_{ij}|$ is $(m \times n)$ matrix then transpose of A is of the order
B. $m \times n$
C. $n \times n$
D. $n \times m$

18 Question Image
A. 0
B. 1
C. 2
D. 3

19 Question Image
A. Orthogonal
B. Involuntary
C. Idempotent
D. Nilpotent

20 The transpose of a column matrix is a _____
A. Zero matrix
B. Diagonal matrix
C. Column matrix
D. Row matrix
