

ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	The square matrix A is skew Hermitian when $(A)^t =$	A. A B. A^t 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. $A^{^t}$ D. $-A$
5	Question Image	
6	Question Image	A. I B. $14 I$ 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. $AB^n = B^n A \Leftrightarrow AB = BA$ B. $AB^n = B^n A \Leftrightarrow A, B$ are square matrices and $AB = BA$ C. $AB^n = B^n A \Leftrightarrow A + B$ D. $AB^n = B^n A \Leftrightarrow A$ 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. Involutary 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