

ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	A square matrix $A = [a_{ij}]$ is upper triangular when	A. $c_{ij} = 0$ B. $b_{ij} = 0$ C. $a_{ij} = 0$ for all $i > j$ D. $d_{ij} = 0$
2	If A is skew Hermitian Matrix then which of the following is not skew Hermitian matrix	A. A^2 B. A^5 C. A^3 D. A^7
3	$(ABC)^T =$	A. CBA^T B. CBA C. $C^T B^T A^T$ D. None of these
4	Trivial solution of homogeneous linear equation is	A. $(0, 0, 0)$ B. $(1, 2, 3)$ C. $(1, 3, 5)$ D. a, b and c
5	Matrices are represented by	A. Natural numbers B. Real numbers C. Small letters D. Capital letters
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $4A - 3I$ B. $3A - 4I$ C. $A - I$ D. None of these
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 16 B. 256 C. 64 D. 1024
8	If A is a skew-symmetric matrix of order n and P, any square matrix of order n, prove that $P^T A P$ is	A. Skew-symmetric B. Symmetric C. Null D. Diagonal
9	The matrix $A = [a_{ij}]_{m \times n}$ with $m \neq n$ is	A. Rectangular B. Symmetric C. Square D. None
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 0 B. Independent of a C. Independent of b D. Independent of c
11	Cofactor of an element a_{ij} denoted by A_{ij} is	A. $(-2)^{i+j}$ B. M_{ij} C. $(-1)^{i+j} M_{ij}$ D. None of above
12	The additive inverse of a matrix A is	D. None of these
13	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $a = 2, b = 3$ B. $a = 3, b = 2$ C. $a = 2, b = 1, 2$ D. $a = 3, b = 3$
14	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
15	Every identity matrix is	A. Row-vector B. Scalar C. Column-vector D. All
16	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. K/6 B. 2K C. 3K D. 6K

17	If A and B are skew-symmetric then $(AB)^t$ is	A. $A^t B^t$ B. AB C. $-AB$ D. BA
18	The order of the matrix A is 3×5 and that of B is 2×3 . The order of the matrix BA is	A. 2×3 B. 3×2 C. 2×5 D. 5×2
19	Question Image <input type="text"/>	A. $2s^{2/3}$ B. $2s^{3/2}$ C. $s^{3/2}$ D. $3s^{3/2}$
20	Question Image <input type="text"/>	