


## ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	Trival solution of homogeneous linear equation is	A. (0, 0, 0) B. (1, 2, 3) C. (1, 3, 5) D. a, b and c
2	Question Image <input style="width: 100%;" type="text"/>	A. -3 B. -7 C. 1 D. 0
3	If A and B are two matrices such that $AB = B$ and $BA = A$ , then $A^2 + B^2 =$	A. 2 AB B. 2 BA C. A + B D. AB
4	A matrix in which the number of rows is not equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix C. Square matrix D. Scalar matrix
5	Question Image <input style="width: 100%;" type="text"/>	
6	Question Image <input style="width: 100%;" type="text"/>	A. 0 B. abc C. 1/abc D. None of these
7	For non-trival solution $ A $ is	A. non zero B. A = 0 C. $ A  = 0$ D. At = 0
8	Question Image <input style="width: 100%;" type="text"/>	
9	Question Image <input style="width: 100%;" type="text"/>	A. 2 x 2 B. 2 x 3 C. 3 x 2 D. 3 x 3
10	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
11	Question Image <input style="width: 100%;" type="text"/>	A. K/6 B. 2K C. 3K D. 6K
12	Question Image <input style="width: 100%;" type="text"/>	A. 3 x 2 B. 2 x 3 C. 3 x 3 D. 2 x 2
13	System of linear equation is inconsistent if	A. System has no solution B. System has one solution C. System has two solution D. None of above
14	Question Image <input style="width: 100%;" type="text"/>	A. At B. -A C. A D. A-1
15	Matrices $A = [a_{ij}] 2 \times 3$ and $B = [b_{ij}] 3 \times 2$ are suitable for	A. BA B. $A^{<sup>2</sup>}$ C. AB D. $B^{<sup>2</sup>}$
16	Question Image <input style="width: 100%;" type="text"/>	A. 0 B. 1 C. -A D. -1

17	A and B be two square matrices and if their inverse exist, the $(AB)^{-1} =$	A. $A^{-1}B^{-1}$ B. $(AB)^{-1}$ C. $A^{-1}B$ D. $B^{-1}A^{-1}$
18	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. $d_{ij} = 0$
19	If for the matrix A, $A^5 = 1$ , then $A^{-1} =$	A. $A^2$ B. $A^3$ C. $A$ D. None of above
20		A. $a^2 + b^2 + c^2$ B. $4a^2 + b^2 + c^2$ C. $4abc$ D. None