

ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	Which of the following is skew symmetric matrix	
2	If for the matrix A, $A^5 = I$, then $A^{-1} =$	A. A^2 B. A^3 C. A D. None of above
3	The transport of a rectangular matrix is a	A. Square matrix B. Rectangular matrix C. Row matrix D. Column matrix
4	Question Image	
5	The number of non zero rows in echelon form of a matrix is called	A. Order of matrix B. Rank of matrix C. Row operation D. None of these
6	The transpose of a zero matrix is a _____	A. Column matrix B. Zero matrix C. Row matrix D. Scalar matrix
7	Question Image	A. 0 B. Independent of a C. Independent of b D. Independent of c
8	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. $d_{ij} = 0$
9	Question Image	A. $A^2 - A^3$ B. $A^2 + A^3$ C. $A^2 - A$ D. $A^2 + A$
10	Question Image	A. I B. A C. A I D. None of these
11	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
		A. $A^2 - 5A + 7I = 1$

12	Question Image	<p>B. $2A^2 - 3A + I = 0$</p> <p>C. $A^2 - 5A + I = 0$</p> <p>D. $A^2 - 5A + 7I = 0$</p>
13	Matrix multiplication is	<p>A. Commutative</p> <p>B. Not commutative</p> <p>C. Not associative</p> <p>D. Not distributive</p>
14	The transpose of a square matrix is a	<p>A. Row matrix</p> <p>B. Column matrix</p> <p>C. Square matrix</p> <p>D. Null matrix</p>
15	Question Image	<p>A. Null matrix</p> <p>B. Triangular matrix</p> <p>C. Unit matrix</p> <p>D. Rectangular matrix</p>
16	The order of the matrix A is 3 x 5 and that of B is 2 x 3. The order of the matrix BA is	<p>A. 2 x 3</p> <p>B. 3 x 2</p> <p>C. 2 x 5</p> <p>D. 5 x 2</p>
17	A and B be two square matrices and if their inverse exist, the $(AB)^{-1} =$	<p>A. $A^{-1}B^{-1}$</p> <p>B. AB^{-1}</p> <p>C. $A^{-1}B$</p> <p>D. $B^{-1}A^{-1}$</p>
18	Question Image	<p>D. all are correct</p>
19	A square matrix $A = [a_{ij}]$ is lower triangular matrix when	<p>A. $a_{ij} = 0$ for all $i < j$</p> <p>B. $b_{ij} = 0$</p> <p>C. $c_{ij} = 0$</p> <p>D. $d_{ij} = 0$</p>
20	Question Image	<p>A. Square matrix</p> <p>B. Row matrix</p> <p>C. Symmetric matrix</p> <p>D. Null matrix</p>