

ECAT (Pre-Eng) Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	The matrix A is Hermitian when $(A)' =$	A. A B. -A C. A D. A'
2	$(ABC)' =$	A. CBA' B. CBA C. C' B' A' D. None of these
3	If the matrices A and B have the order 1×10 and 10×1 then order of AB is	A. 1×1 B. 1×10 C. 10×10 D. 10×1
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 1 B. -1 C. 0 D. I
6	Let A be a square matrix. Then, $\frac{1}{2}(A-A')$ is	A. Skew-symmetric B. Symmetric C. Null D. None of the above
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $4A - 3I$ B. $3A - 4I$ C. $A - I$ D. None of these
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
9	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. An upper triangular matrix B. A lower triangular matrix C. A diagonal matrix D. A null matrix
10	If A is a skew-symmetric matrix of order n and P, any square matrix of order n. prove that P' AP is	A. Skew-symmetric B. Symmetric C. Null D. Diagonal
11	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 2 B. 4 C. 6 D. 8
12	The order of the matrix A is 3×2 and that of B is 2×3 . The order of the matrix BA is	A. 3×3 B. 3×2 C. 2×5 D. 5×2
13	Question Image <input style="width: 500px; height: 20px;" type="text"/>	D. all are correct
14	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
15	For a square matrix A, if $A = A^t$, then A is called	A. Matrix B. Transpose C. Symmetric D. Non-symmetric
16	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
17	An equation of the form $ax + by = k$ is homogeneous linear equation when:	
18	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Singular B. Non-singular C. Adjoint D. None of above

19

Question Image

- A. A
- B. $-A$
- C. A^t
- D. A^{-1}

20

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