

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

Sr	Questions	Answers Choice
1	Matrices $A = [a_{ij}] 2 \times 3$ and $B = [b_{ij}] 3 \times 2$ are suitable for	A. BA B. A2 C. AB D. B2
2	If the matrices A and B are conformable for multiplication then $(AB)^t =$ _____	A. AB B. $A^t B^t$ C. $B^t A^t$ D. $A^t B$
3	Question Image	
4	Question Image	C. 16 D. None of these
5	An equation of the form $ax + by = k$ is homogeneous linear equation when	A. $b = 0, a = 0$ B. $a = 0, b \neq 0$ C. $b = -0, a \neq 0$ D. $a \neq 0, b \neq 0, k = 0$
6	Question Image	A. $A^2 - 5A + 7I = 1$ B. $2A^2 - 3A + 7I = 0$ C. $A^2 - 5A + I = 0$ D. $A^2 - 5A + 7I = 0$
7	Question Image	A. Zero matrix B. Diagonal matrix C. Column matrix D. Scalar matrix
8	Question Image	A. 0 B. abc C. $1/abc$ D. None of these
9	Question Image	D. all are correct
10	Question Image	D. all
11	Question Image	A. $a = 2, b = 3$ B. $a = 3, b = 2$ C. $a = 2, b = 1, 2$ D. $a = 3, b = 3$
12	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. $B^{-1} A^{-1}$
13	If A is singular then $ A  =$ _____	A. 1 B. 0 C. 2 D. None of these
14	$(ABC)^t =$	A. $CBA^t$ B. $CBA$ C. $C^t B^t A^t$ D. None of these
15	Question Image	
16	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. $d_{ij} = 0$
17	The transpose of a row matrix is a _____	A. Zero matrix B. Diagonal matrix C. Column matrix D. Row matrix
18	For trival solution $ A $ is	A. A B. $ A  = 0$ C. $A = 0$ D. ....

D.  $|A| \neq 0$

19 The additive inverse of a matrix A is

D. None of these

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- A. Identity matrix
- B. Diagonal matrix
- C. Null matrix
- D. Hermitian matrix