

## ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	Question Image	A. 6, -12, -18 B. -6, 4, 9 C. -6, -4, -9 D. -6, 12, 18
2	If A is any matrix then its additive inverse is	A. A B. $A^{-1}$ C. $A^t$ D. $-A$
3	Question Image	A. $9/4$ B. $4/9$ C. 1 D. None of these
4	Question Image	
5	The matrix $A = [a_{ij}]_{m \times n}$ with $m \neq n$ is	A. Rectangular B. Symmetric C. Square D. None
6	Question Image	A. 1 B. 0 C. -1 D. 2
7	If A is a non singular matrix then $A^{-1} = \underline{\hspace{2cm}}$	
8	Question Image	
9	The square matrix A is skew-symmetric when $A^t =$	A. -B B. -C C. -A D. -D
10	For any positive integer n	A. $ABn = Bn A \Leftrightarrow AB = BA$ B. $ABn = Bn A \Leftrightarrow A, B$ are square matrices and $AB = BA$ C. $ABn = BnA \Leftrightarrow A + B$ D. $ABn = BnA \Leftrightarrow A$ and B are square matrices
11	The matrix $A = [a_{ij}]_{1 \times n}$ is a	A. Vector B. Rectangular matrix C. Column vector D. Square matrix
12	A non-homogeneous linear system $AX = B$ has no solution if	A. $ A  = 0$ B. $ A  \neq 0$ C. Rank (a) = no of variables D. Rank > no of variables
13	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
14	For a square matrix A, if $A = A^t$ , then A is called	A. matrix B. Transpose C. Symmetric D. Non-symmetric
15	Question Image	
16	Question Image	A. 5 B. -5 C. none
17	Question Image	A. 1, 2, 3 B. 1, 5, 9 C. 2, 5, 8 D. 3, 6, 9

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18 Matrices  $A = [a_{ij}]$   $2 \times 3$  and  $B = [b_{ij}]$   $3 \times 2$  are suitable for

A.  $BA$   
B.  $A^{>2}$   
C.  $AB$   
D.  $B^{>2}$

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19 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

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20 A square matrix  $A$  for which  $A^t = -A$  is called a

A. Column matrix  
B. Symmetric matrix  
C. Skew-symmetric matrix  
D. Row matrix

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