

## ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Scalar matrix B. Identity matrix C. Null matrix D. Symmetric matrix
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 <input style="width: 500px; height: 20px;" type="text"/>	A. $x=0, y=4$ B. $x=-1, y=2$ C. $x=2, y=3$ D. $x=3, y=4$
4	The square matrix A is skew-symmetric when $A^t =$	A. -B B. -C C. -A D. -D
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. 1 B. 0 C. -1 D. 2
6	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
7	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $a=2, b=3$ B. $a=3, b=2$ C. $a=2, b=1, 2$ D. $a=3, b=3$
8	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $(2x+a+b+c)$ B. $(a+b+c)$ C. $(a+b+c+x)$ D. 0
9	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $A(\alpha - \beta)$ B. $A(\alpha + \beta)$ C. $A(\alpha - \beta)$ D. $A(\alpha + \beta)$
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
11	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. Symmetric B. Skew-symmetric C. Hermitian D. Skew hermitian
12	If A is any matrix then its additive inverse is	A. A B. $A^{-1}$ C. $-A$ D. $A^{-1}$

D. -A

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Question Image

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

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A matrix with a single column is called

- A. Column matrix
- B. Row matrix
- C. Identity matrix
- D. Null matrix

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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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Question Image

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Question Image

- A.  $2 \times 2$
- B.  $2 \times 3$
- C.  $3 \times 2$
- D.  $3 \times 3$

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The matrix  $A = [a_{ij}]_{1 \times n}$  is a

- A. Vector
- B. Rectangular matrix
- C. Column vector
- D. Square matrix

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Cofactor of an element  $a_{ij}$  is defined by

- A.  $(-1)^{i+j}|A|$
- B.  $(-1)^{i+j}M_{ij}$
- C.  $(-1)^{i+j}M_{ij}$
- D. None of these

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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.  $d_{ij} = 0$