

## ECAT Mathematics Chapter 5 Matrices and Determinants

Sr	Questions	Answers Choice
1	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
2	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. l3 B. r 3 C. r D. none
3	The square matrix A is skew Hermitian when $(A)^t =$	A. A B. $A'$ C. $-A$ D. A
4	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
5	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. A B. $-A$ C. $A^{sup}t</sup>$ D. $A^{sup}</sup>$
6	Let A is a 3 x 3 matrix and B is its adjoint matrix. If $ B  = 64$ , then $ A  =$	
7	Rank of matrix $[1 \ 3 \ 5 \ 0]$ is	A. 1 B. 3 C. 2 D. 4
8	The transpose of a column matrix is a _____	A. Zero matrix B. Diagonal matrix C. Column matrix D. Row matrix
9	The transport of a null matrix is	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
10	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
11	If A and B are two matrices such that $AB = B$ and $BA = A$ then $A^2 + B^2 =$	A. 2 AB B. 2 BA C. $A + B$ D. AB
12	If A and B are skew-symmetric then $(AB)^t$ is	A. $A^t B^t$ B. AB C. $-AB$ D. BA
13	The transport of a square matrix is a	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
14	Trivial solution of homogeneous linear equation is	A. $(0, 0, 0)$ B. $(1, 2, 3)$ C. $(1, 3, 5)$ D. a, b and c
15	If $A = [a_{ij}]$ is $(m \times n)$ matrix, then transpose of A is of the order	A. $m \times m$ B. $m \times n$ C. $n \times n$ D. $n \times m$
16	Question Image <input style="width: 500px; height: 20px;" type="text"/>	A. $A^{sup}2</sup> - 5A + 7I = 1$ B. $2A^{sup}2</sup> - 3A + 7I = 0$ C. $A^{sup}2</sup> - 5A + I = 0$ D. $A^{sup}2</sup> - 5A + 7I = 0$
17	Question Image <input style="width: 500px; height: 20px;" type="text"/>	
18	If for the matrix A, $A^5 = I$ , then $A^{-1} =$	A. $A^{sup}2</sup>$ B. $A^{sup}3</sup>$ C. A D. None of above

---

19 If A is singular then  $|A| =$  \_\_\_\_\_

- A. 1
- B. 0
- C. 2
- D. None of these

---

20 

- A. Singular
  - B. Non-singular
  - C. Adjoint
  - D. None of above
-