ECAT Mathematics Chapter 5 Matrices and Detarminants Online Test

Sr	Questions	Answers Choice
1	The square matrix A is skew-symmetric when At=	A. -B B. -C C. -A D. -D
2	A square matrix A = [aij] is upper triangular when	A. cij = 0 B. bij = 0 C. aij = 0 for all i > j D. dij = 0
3	A square matrix A = [aij] is lower triangular matrix when:	A. aij = 0 for all i < j B. bij = 0 C. cij = 0 D. dij =0
4	Question Image	A. Singular B. Non-singular C. Adjoint D. None of above
5	Matrices A = [aij] 2 x 3 and B =[bij] 3 x 2 are suitable for	A. BA B. A² C. AB D. B²
6	Question Image	
7	Question Image	A. a = -1/2, b = -1 B. a = 1, b = 2 C. a = 2, b = 3 D. None of above
8	Question Image	A. x =0, y =4 B. x = -1, y = 2 C. x = 2, y = 3 D. x = 3, y = 4
9	Question Image	
10	A and B be two square matrices and if their inverse exist, the $(AB)^{-1}$=	A. A⁻¹B⁻¹ B. AB⁻¹ C. A⁻¹B D. B⁻¹A⁻¹
11	Question Image	A. I B. 14 I C. 0 D. None of these
12	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
13	Question Image	
14	Question Image	A. 3, -3, 11 B. 3, 3, 11 C. -3, 3, -11 D. -3, -3, 11
15	Question Image	
16	Question Image	A. a²b²c² B. 4a²b²c² C. 4abc D. None
17	Question Image	
18	Question Image	A. 1 B. -1

18	Question Image	C. 0 D. I
19	Let A be a square matrix. Then, 1/2 (A-A') is	A. Skew-symmetric B. Symmetric C. Null D. None of the above
20	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
21	(ABC)' =	A. CBA' B. CBA C. C' B' A' D. None of these
22	Question Image	A. 1 B. 0 C. -1 D. 2
23	Question Image	A. 1 B. 0 C. 3 D. -1
24	Question Image	A. -3 B. -7 C. 1 D. 0
25	Question Image	A. A²- 5A + 7I = 1 B. 2A²- 3A + 7I = 0 C. A²- 5A + I = 0 D. A²- 5A + 7I = 0
26	Question Image	
27	Question Image	
28	Question Image	A. a = 2, b = 3 B. a = 3, b = 2 C. a = 2, b = 1, 2 D. a = 3, b = 3
29	Which of the following is an identity matrix?	D. none of these
30	Question Image	A. 0 B. 1 C. -A D. -1