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

Sr	Questions	Answers Choice
1	The square matrix A is skew-symmetric when At =	A. -B B. -C C. -A D. -D
2	If A and B are skew-symmetric then (AB)t is	A. At Bt B. AB C. -AB D. BA
3	The order of the matrix A is 3 x 2 and that of B is 2 x 3. The order of the matrix BA is	A. 3 x 3 B. 3 x 2 C. 2 x 5 D. 5 x 2
4	Question Image	D. all are correct
5	Question Image	A. Identity matrix B. Diagonal matrix C. Null matrix D. Hermitian matrix
6	Question Image	
7	Question Image	A. 1, 2, 3 B. 1, 5, 9 C. 2, 5, 8 D. 3, 6, 9
8	For non-trival solution |A| is	A. non zero B. A = 0 C. |A| = 0 D. At = 0
9	For any positive integer n	A. ABn = Bn A ⇔ AB = BA B. ABn = Bn A⇔ A,B are square matrices and AB = BA C. ABn = BnA⇔ A + B D. ABn = BnA ⇔ A and B are square matries
10	Question Image	A. Singular B. Non-singular C. Adjoint D. None of above
11	Question Image	A. 16 B. 256 C. 64 D. 1024
12	Question Image	A. -3 B. -7 C. 1 D. 0
13	The matrix A is Hermitian when (A)' =	A. A B. -A C. A D. A'
14	Question Image	A. I B. |A| C. |A| I D. None of these
15	Question Image	A. A²- 5A + 7I = 1 B. 2A²- 3A + 7I = 0 C. A²- 5A + I = 0 D. A²- 5A + 7I = 0
16	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<sup>-

		1</sup> D. None of these
17	Question Image	
18	Question Image	A. Square matrix B. Row matrix C. Symmetric matrix D. Null matrix
19	Rank of matrix [1 3 5 0] is	A. 1 B. 3 C. 2 D. 4
20	Which of the following is an identity matrix?	D. none of these