ECAT Mathematics Chapter 5 Matrices and Detarminants Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	A. 3K B. K2 C. K3 D. K
3	Question Image	
4	Question Image	A. (2x4) B. (2x7) C. (2x3) D. (7x2)
5	Question Image	A. 5 B. 15 C. 10 D. 20
6	Question Image	A. I3 B. rI3 C. r D. none
7	Question Image	A. 16 B. 256 C. 64 D. 1024
8	Question Image	A. (2x+a+b+c) B. (a+b+c) C. (a+b+c+x) D. 0
9	Question Image	D. all
10	Question Image	
11	If A is skew Hermitian Matrix then which of the following is not skew Hermitian matrix	A. A2 B. A5 C. A3 D. A7
12	Which of the following is skew symmetric matrix	
13	Question Image	A. k3 B. 0 C. 3k D. k6
14	Question Image	A. 5 C. -5 D. none
15	Rank of matrix [1 3 5 0] is	A. 1 B. 3 C. 2 D. 4
16	Question Image	
17	Question Image	D. all are correct
18	Question Image	
19	Question Image	
20	Question Image	
21	Question Image	D. all are correct
		A. Square matrix B. Scalar matrix

22	A = [3] is a/an	B. Scalar matrix C. Diagonal matrix D. Identity matrix
23	If A = [aij]mxpand B =[aij]pxnthen order of BA is	A. m x n B. p x n C. n x m D. None of these
24	Matrix multiplication is	A. Commutative B. Not commutative C. Not associative D. Not distributive
25	If A is a non-singular matrix then adj A is	A. Non-singular B. Symmetric C. Singular D. Non defined
26	A non-homogeneous linear system AX = B has no solution if	A. |A| = 0 B. |A|≠ 0 C. Rank (a) = no of variables D. Rank > no of variables
27	Every identity matrix is	A. Row-vector B. Scalar C. Column-vector D. All
28	If A and B are skew-symmetric then (AB)t is	A. At Bt B. AB C. -AB D. BA
29	If the matrices A and B have the order 1 x 10 and 10 x 1 then order of AB is	A. 1 x 1 B. 1 x 10 C. 10 x 10 D. 10 x 1
30	The matrix A = [aij]mxn with m≠n is	A. Rectangular B. Symmetric C. Square D. None
31	The matrix A = [aij]1xn is a	A. Vector B. Rectangular matrix C. Column vector D. Square matrix
32	The matrix A = [aij]mxn with m ≠n is always	A. Symmetric B. Hermition C. Skew-symmetric D. None
33	A diagonal matrix is always	A. Identity B. Triangular C. Scalar D. Non-singular
34	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
35	(ABC)' =	A. CBA' B. CBA C. C'B'A D. C'B'A'
36	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
37	If A and B are two matrices such that AB = B and BA = A then A2 + B2 =	A. 2 AB B. 2 BA C. A + B D. AB
38	A and B be two square matrices and if their inverse exist the (AB)-1 =	A. A-1 B-1 B. AB-1 C. A-1B D. B-1A-1
39	Matrices A = [aij] 2 x 3 and B = [bij] 3 x 2 are suitable for	A. BA B. A2 C. AB D. B2

40	Cofactor of an element aij denoted by Aij is	A. (-2)i+j B. Mij C. (-1)i+j Mij D. None of above
41	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
42	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
43	The square matrix A is skew-symmetric when At =	A. -B B. -C C. -A D. -D
44	The square matrix A is skew Hermitian when (A)'=	A. A B. A' C. -A D. A
45	The matrix A is Hermitian when (A)' =	A. A B. -A C. A D. A'
46	An equation of the form ax + by = k is homogeneous linear equation when	A. b = 0, a = 0 B. a = 0,b ≠ 0 C. b = -0,a≠ 0 D. a≠ 0,b≠ 0, k = 0
47	System of linear equation is inconsistent if	A. System has no solution B. System has one solution C. System has two solution D. None of above
48	For trival solution |A| is	A. A B. |A| = 0 C. A = 0 D. |A|≠ 0
49	For non-trival solution |A| is	A. non zero B. A = 0 C. |A| = 0 D. At = 0
50	Trival solution of homogeneous linear equation is	A. (0, 0, 0) B. (1, 2, 3) C. (1, 3, 5) D. a.b and c
51	We solve the system of non-homogeneous linear equations by	A. a and b B. b and c C. c and a D. a,b and c
52	If A = |aij| is (m x n) matrix then transpose of A is of the order	A. m x m B. m x n C. n x n D. n x m
53	For a square matrix A, if A = At, then A is called	A. Matrix B. Transpose C. Symmetric D. Non-symmetric
54	If for the matrix A,A5 = 1,then A-1=	A. A2 B. A3 C. A D. None of above
55	The order of the matrix A is 3 x 5 and that of B is 2 x 3.The order of the matrix BA is	A. 2 x 3 B. 3 x 2 C. 2 x 5 D. 5 x 2
56	If there are m rows and n columns in a matrix then its order is	A. m x n B. m x m C. n x n D. n x m
57	The order of the matrix [1 2 3] is	A. 1 x 1 B. 3 x 3 C. 3 x 1

		D. 1 x 3
58	Question Image	A. 2 x 2 B. 2 x 3 C. 3 x 2 D. 3 x 3
59	Question Image	A. 2 x 2 B. 2 x 3 C. 3 x 2 D. 3 x 3
60	A matrix in which the number of rows is not equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix C. Square matrix D. Scalar matrix
61	A matrix in which the number of rows is equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix C. Square matrix D. Scalar matrix
62	A matrix with a single row is called a	A. Column matrix B. Row matrix C. Null matrix D. Identity matrix
63	A matrix with a single column is called	A. Column matrix B. Row matrix C. Identity matrix D. Null matrix
64	A square matrix all of whose elements except the main diagonal are zeros is called a	A. Null matrix B. Singular matrix C. Symmetric matrix D. Diagonal matrix
65	A diagonal matrix in which the diagonal elements are equal is called a	A. Null matrix B. Identity matrix C. Scalar matrix D. Row matrix
66	Question Image	A. Scalar matrix B. Identity matrix C. Null matrix D. Symmetric matrix
67	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
68	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
69	Question Image	A. Identity matrix B. Diagonal matrix C. Null matrix D. Hermitian matrix
70	Question Image	A. Hermitian matrix B. Skew-hermitian matrix C. Symmetric matrix D. Identity matrix
71	Question Image	A. Square matrix B. Row matrix C. Symmetric matrix D. Null matrix
72	In order of A is m x n and order of B is n x p then order of AB is	A. m x m B. n x n C. m x p D. p x m
73	Question Image	A. 3 x 1 B. 1 x 3 C. 3 x 3 D. 1 x 1
74	Two matrices A and B are conformable for the product AB if	A. Both A and B are square B. Both A and B are symmetric C. Number of rows of A = number of columns of B D. Number of columns of A = number of rows of B
75	Question Image	

75	Question Image	
76	The transport of a null matrix is	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
77	The transport of a square matrix is a	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
78	The transport of a rectangular matrix is a	A. Square matrix B. Rectangular matrix C. Row matrix D. Column matrix
79	Question Image	
80	If A is any matrix then its additive inverse is	A. A B. A⁻¹ C. A^t D. -A
81	Question Image	A. Diagonal matrix B. Scalar matrix C. Triangular matrix D. Identity matrix
82	Question Image	A. Diagonal matrix B. Scalar matrix C. Triangular matrix D. Identity matrix
83	Question Image	A. Diagonal matrix B. Scalar matrix C. Triangular matrix D. Identity matrix
84	Question Image	A. Null matrix B. Triangular matrix C. Unit matrix D. Rectangular matrix
85	Question Image	A. 1, 2, 3 B. 1, 5, 9 C. 2, 5, 8 D. 3, 6, 9
86	Question Image	A. 0 B. 1 C. -2 D. 10
87	If A is singular then $\|A\|$ = _____	A. 1 B. 0 C. 2 D. None of these
88	Question Image	C. 16 D. None of these
89	If A is a non singular matrix then A^{-1}= _____	
90	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
91	Question Image	A. At B. -A C. A D. A-1
92	Matrices are represented by	A. Natural numbers B. Real numbers C. Small letters D. Capital letters
93	If order of A is m x n, then order of A^t is	A. m x m B. n x n C. m x n D. n x m
94	Question Image	
95	Question Image	A. An upper triangular matrix B. A lower triangular matrix C. A diagonal matrix

		C. A diagonal matrix D. A null matrix
96	If the matrices A and B are conformable for multiplication then $(AB)^t$= _____	A. AB B. A^tB^t C. B^tA^t D. A^tB
97	Question Image	
98	Question Image	A. 3 x 2 B. 2 x 3 C. 3 x 3 D. 2 x 2
99	Question Image	A. Zero matrix B. Diagonal matrix C. Column matrix D. Scalar matrix
100	The transpose of a column matrix is a _____	A. Zero matrix B. Diagonal matrix C. Column matrix D. Row matrix
101	The transpose of a row matrix is a _____	A. Zero matrix B. Diagonal matrix C. Column matrix D. Row matrix
102	The transpose of a zero matrix is a _____	A. Column matrix B. Zero matrix C. Row matrix D. Scalar matrix
103	The additive inverse of a matrix A is	D. None of these
104	Question Image	A. 2 B. 4 C. 6 D. 8
105	Question Image	A. 0 B. 1 C. 2 D. 3
106	Minor of an element $a_{ij}$is denoted by	A. M_{ij} B. A_{ij} C. |A| D. None of these
107	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⁻¹ D. None of these
108	Question Image	
109	Question Image	
110	Question Image	A. -a -b -c B. 1 C. 0 D. -1
111	Question Image	A. 0 B. 1 C. -A D. -1
112	Which of the following is an identity matrix?	D. none of these
113	Question Image	A. a = 2, b = 3 B. a = 3, b = 2 C. a = 2, b = 1, 2 D. a = 3, b = 3
114	Question Image	
115	Question Image	
116	Question Image	A. A²- 5A + 7I = 1 B. 2A²- 3A + 7I = 0 C. A²- 5A + I = 0 D. A²- 5A + 7I = 0
		A. -3

117	Question Image	B. -7 C. 1 D. 0
118	Question Image	A. 1 B. 0 C. 3 D. -1
119	Question Image	A. 1 B. 0 C. -1 D. 2
120	(ABC)' =	A. CBA' B. CBA C. C' B' A' D. None of these
121	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
122	Let A be a square matrix. Then, 1/2 (A-A') is	A. Skew-symmetric B. Symmetric C. Null D. None of the above
123	Question Image	A. 1 B. -1 C. 0 D. I
124	Question Image	
125	Question Image	A. a²b²c² B. 4a²b²c² C. 4abc D. None
126	Question Image	
127	Question Image	A. 3, -3, 11 B. 3, 3, 11 C. -3, 3, -11 D. -3, -3, 11
128	Question Image	
129	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
130	Question Image	A. I B. 14 I C. 0 D. None of these
131	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
132	Question Image	
133	Question Image	A. x =0, y =4 B. x = -1, y = 2 C. x = 2, y = 3 D. x = 3, y = 4
134	Question Image	A. a = -1/2, b = -1 B. a = 1, b = 2 C. a = 2, b = 3 D. None of above
135	Question Image	
136	Matrices A = [aij] 2 x 3 and B =[bij] 3 x 2 are suitable for	A. BA B. A² C. AB D. B²
		A. Singular

137	Question Image	B. Non-singular C. Adjoint D. None of above
138	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
139	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
140	The square matrix A is skew-symmetric when At=	A. -B B. -C C. -A D. -D
141	Question Image	A. A⁻ B. A^t C. -A D. A
142	Question Image	A. A B. -A C. A^t D. A⁻
143	Question Image	
144	An equation of the form ax + by = k is homogeneous linear equation when:	
145	System of linear equations is inconsistent if	A. System has no solution B. System has one solution C. System has two solution D. None of above
146	For trival solution |A| is	A. A B. |A| is non zero C. A = 0 D. None of these
147	For non-trival solution |A| is	A. A = 0 B. A^t= 0 C. |A| = 0 D. None of these
148	Trival solution of homogeneous linear equation is	A. (0, 0, 0) B. (1, 2, 3) C. (1, 3, 5) D. a, b and c
149	We also the system of non-homogeneous linear equations by	A. a and b B. b and c C. c and a D. a, b and c
150	If A = $[a_{ij}]$ is (m x n) matrix, then transpose of A is of the order	A. m x m B. m x n C. n x n D. n x m
151	For a square matrix A, if A = A^t, then A is called	A. matrix B. Transpose C. Symmetric D. Non-symmetric
152	Question Image	A. I B. |A| C. |A| I D. None of these
153	If for the matrix A, A^5= I, then A^{-1}=	A. A² B. A³ C. A D. None of above
154	If the trace of matrix A is 5, then the trace of the matrix 3A is	A. 3/5 B. 5/3 C. 8 D. 15
155	Question Image	A. 0 B. 1 C. 2 D. 4
		A. 3 x 3

156	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
157	Question Image	A. 6, -12, -18 B. -6, 4, 9 C. -6, -4, -9 D. -6, 12, 18
158	Question Image	A. A(α) - A(β) B. A(α) + A(β) C. A(α-β) D. A(α+β)
159	Question Image	A. 4A - 3I B. 3A - 4I C. A - I D. None of these
160	Question Image	A. Symmetric B. Skew-symmetric C. Hermitian D. Skew hermitian
161	Question Image	
162	Question Image	A. a = 4, b = 1 B. a = 1, b = -4 C. a = 0, b = 4 D. a = 2, b = 4
163	Question Image	A. Orthogonal B. Involutary C. Idempotent D. Nilpotent
164	Question Image	
165	Question Image	A. 0 B. abc C. 1/abc D. None of these
166	Question Image	A. 0 B. Independent of a C. Independent of b D. Independent of c
167	Let A is a 3 x 3 matrix and B is its adjoint matrix. If |B| = 64, then |A| =	
168	Question Image	A. K/6 B. 2K C. 3K D. 6K
169	Question Image	A. 2s² B. 2s³ C. s³ D. 3s³
170	Question Image	A. 9/4 B. 4/9 C. 1 D. None of these
171	Question Image	
172	Question Image	A. 3K B. K2 C. K3 D. K

173	Question Image	
174	Question Image	A. (2x4) B. (2x7) C. (2x3) D. (7x2)
175	Question Image	A. 5 B. 15 C. 10 D. 20
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178	Question Image	A. (2x+a+b+c) B. (a+b+c) C. (a+b+c+x) D. 0
179	Question Image	D. all
180	Question Image	
181	If A is skew Hermitian Matrix then which of the following is not skew Hermitian matrix	A. A2 B. A5 C. A3 D. A7
182	Which of the following is skew symmetric matrix	
183	Question Image	A. k3 B. 0 C. 3k D. k6
184	Question Image	A. 5 C. -5 D. none
185	Rank of matrix [1 3 5 0] is	A. 1 B. 3 C. 2 D. 4
186	Question Image	
187	Question Image	D. all are correct
188	Question Image	
189	Question Image	
190	Question Image	
191	Question Image	D. all are correct
192	A = [3] is a/an	A. Square matrix B. Scalar matrix C. Diagonal matrix D. Identity matrix
193	If A = [aij]mxpand B =[aij]pxnthen order of BA is	A. m x n B. p x n C. n x m D. None of these
194	Matrix multiplication is	A. Commutative B. Not commutative C. Not associative D. Not distributive
195	If A is a non-singular matrix then adj A is	A. Non-singular B. Symmetric C. Singular D. Non defined
		A. |A| = 0

196	A non-homogeneous linear system AX = B has no solution if	B. |A|≠ 0 C. Rank (a) = no of variables D. Rank > no of variables
197	Every identity matrix is	A. Row-vector B. Scalar C. Column-vector D. All
198	If A and B are skew-symmetric then (AB)t is	A. At Bt B. AB C. -AB D. BA
199	If the matrices A and B have the order 1 x 10 and 10 x 1 then order of AB is	A. 1 x 1 B. 1 x 10 C. 10 x 10 D. 10 x 1
200	The matrix A = [aij]mxn with m≠n is	A. Rectangular B. Symmetric C. Square D. None
201	The matrix A = [aij]1xn is a	A. Vector B. Rectangular matrix C. Column vector D. Square matrix
202	The matrix A = [aij]mxn with m ≠n is always	A. Symmetric B. Hermition C. Skew-symmetric D. None
203	A diagonal matrix is always	A. Identity B. Triangular C. Scalar D. Non-singular
204	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
205	(ABC)' =	A. CBA' B. CBA C. C'B'A D. C'B'A'
206	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
207	If A and B are two matrices such that AB = B and BA = A then A2 + B2 =	A. 2 AB B. 2 BA C. A + B D. AB
208	A and B be two square matrices and if their inverse exist the (AB)-1 =	A. A-1 B-1 B. AB-1 C. A-1B D. B-1A-1
209	Matrices A = [aij] 2 x 3 and B = [bij] 3 x 2 are suitable for	A. BA B. A2 C. AB D. B2
210	Cofactor of an element aij denoted by Aij is	A. (-2)i+j B. Mij C. (-1)i+j Mij D. None of above
211	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
212	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
213	The square matrix A is skew-symmetric when At =	A. -B B. -C C. -A D. D

		D. -D
214	The square matrix A is skew Hermitian when (A)'=	A. A B. A' C. -A D. A
215	The matrix A is Hermitian when (A)' =	A. A B. -A C. A D. A'
216	An equation of the form ax + by = k is homogeneous linear equation when	A. b = 0, a = 0 B. a = 0,b ≠ 0 C. b = -0,a≠ 0 D. a≠ 0,b≠ 0, k = 0
217	System of linear equation is inconsistent if	A. System has no solution B. System has one solution C. System has two solution D. None of above
218	For trival solution |A| is	A. A B. |A| = 0 C. A = 0 D. |A|≠ 0
219	For non-trival solution |A| is	A. non zero B. A = 0 C. |A| = 0 D. At = 0
220	Trival solution of homogeneous linear equation is	A. (0, 0, 0) B. (1, 2, 3) C. (1, 3, 5) D. a.b and c
221	We solve the system of non-homogeneous linear equations by	A. a and b B. b and c C. c and a D. a,b and c
222	If A = |aij| is (m x n) matrix then transpose of A is of the order	A. m x m B. m x n C. n x n D. n x m
223	For a square matrix A, if A = At, then A is called	A. Matrix B. Transpose C. Symmetric D. Non-symmetric
224	If for the matrix A,A5 = 1,then A-1=	A. A2 B. A3 C. A D. None of above
225	The order of the matrix A is 3 x 5 and that of B is 2 x 3.The order of the matrix BA is	A. 2 x 3 B. 3 x 2 C. 2 x 5 D. 5 x 2
226	If there are m rows and n columns in a matrix then its order is	A. m x n B. m x m C. n x n D. n x m
227	The order of the matrix [1 2 3] is	A. 1 x 1 B. 3 x 3 C. 3 x 1 D. 1 x 3
228	Question Image	A. 2 x 2 B. 2 x 3 C. 3 x 2 D. 3 x 3
229	Question Image	A. 2 x 2 B. 2 x 3 C. 3 x 2 D. 3 x 3
230	A matrix in which the number of rows is not equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix C. Square matrix D. Scalar matrix
231	A matrix in which the number of rows is equal to the number of columns is called a	A. Diagonal matrix B. Rectangular matrix

		C. Square matrix D. Scalar matrix
232	A matrix with a single row is called a	A. Column matrix B. Row matrix C. Null matrix D. Identity matrix
233	A matrix with a single column is called	A. Column matrix B. Row matrix C. Identity matrix D. Null matrix
234	A square matrix all of whose elements except the main diagonal are zeros is called a	A. Null matrix B. Singular matrix C. Symmetric matrix D. Diagonal matrix
235	A diagonal matrix in which the diagonal elements are equal is called a	A. Null matrix B. Identity matrix C. Scalar matrix D. Row matrix
236	Question Image	A. Scalar matrix B. Identity matrix C. Null matrix D. Symmetric matrix
237	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
238	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
239	Question Image	A. Identity matrix B. Diagonal matrix C. Null matrix D. Hermitian matrix
240	Question Image	A. Hermitian matrix B. Skew-hermitian matrix C. Symmetric matrix D. Identity matrix
241	Question Image	A. Square matrix B. Row matrix C. Symmetric matrix D. Null matrix
242	In order of A is m x n and order of B is n x p then order of AB is	A. m x m B. n x n C. m x p D. p x m
243	Question Image	A. 3 x 1 B. 1 x 3 C. 3 x 3 D. 1 x 1
244	Two matrices A and B are conformable for the product AB if	A. Both A and B are square B. Both A and B are symmetric C. Number of rows of A = number of columns of B D. Number of columns of A = number of rows of B
245	Question Image	
246	The transport of a null matrix is	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
247	The transport of a square matrix is a	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
248	The transport of a rectangular matrix is a	A. Square matrix B. Rectangular matrix C. Row matrix D. Column matrix
249	Question Image	

250	If A is any matrix then its additive inverse is	A. A B. A⁻¹ C. A^t D. -A
251	Question Image	A. Diagonal matrix B. Scalar matrix C. Triangular matrix D. Identity matrix
252	Question Image	A. Diagonal matrix B. Scalar matrix C. Triangular matrix D. Identity matrix
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255	Question Image	A. 1, 2, 3 B. 1, 5, 9 C. 2, 5, 8 D. 3, 6, 9
256	Question Image	A. 0 B. 1 C. -2 D. 10
257	If A is singular then |A| = _____	A. 1 B. 0 C. 2 D. None of these
258	Question Image	C. 16 D. None of these
259	If A is a non singular matrix then A^{-1}= _____	
260	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
261	Question Image	A. At B. -A C. A D. A-1
262	Matrices are represented by	A. Natural numbers B. Real numbers C. Small letters D. Capital letters
263	If order of A is m x n, then order of A^t is	A. m x m B. n x n C. m x n D. n x m
264	Question Image	
265	Question Image	A. An upper triangular matrix B. A lower triangular matrix C. A diagonal matrix D. A null matrix
266	If the matrices A and B are conformable for multiplication then $(AB)^t$= _____	A. AB B. A^tB^t C. B^tA^t D. A^tB
267	Question Image	
268	Question Image	A. 3 x 2 B. 2 x 3 C. 3 x 3 D. 2 x 2
269	Question Image	A. Zero matrix B. Diagonal matrix C. Column matrix

		C. Column matrix D. Scalar matrix
270	The transpose of a column matrix is a _____	A. Zero matrix B. Diagonal matrix C. Column matrix D. Row matrix
271	The transpose of a row matrix is a _____	A. Zero matrix B. Diagonal matrix C. Column matrix D. Row matrix
272	The transpose of a zero matrix is a _____	A. Column matrix B. Zero matrix C. Row matrix D. Scalar matrix
273	The additive inverse of a matrix A is	D. None of these
274	Question Image	A. 2 B. 4 C. 6 D. 8
275	Question Image	A. 0 B. 1 C. 2 D. 3
276	Minor of an element $a_{ij}$is denoted by	A. M_{ij} B. A_{ij} C. |A| D. None of these
277	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⁻¹ D. None of these
278	Question Image	
279	Question Image	
280	Question Image	A. -a -b -c B. 1 C. 0 D. -1
281	Question Image	A. 0 B. 1 C. -A D. -1
282	Which of the following is an identity matrix?	D. none of these
283	Question Image	A. a = 2, b = 3 B. a = 3, b = 2 C. a = 2, b = 1, 2 D. a = 3, b = 3
284	Question Image	
285	Question Image	
286	Question Image	A. A²- 5A + 7I = 1 B. 2A²- 3A + 7I = 0 C. A²- 5A + I = 0 D. A²- 5A + 7I = 0
287	Question Image	A. -3 B. -7 C. 1 D. 0
288	Question Image	A. 1 B. 0 C. 3 D. -1
289	Question Image	A. 1 B. 0 C. -1 D. 2
290	(ABC)' =	A. CBA' B. CBA C. C' B' A'

		D. None of these
291	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
292	Let A be a square matrix. Then, 1/2 (A-A') is	A. Skew-symmetric B. Symmetric C. Null D. None of the above
293	Question Image	A. 1 B. -1 C. 0 D. I
294	Question Image	
295	Question Image	A. a²b²c² B. 4a²b²c² C. 4abc D. None
296	Question Image	
297	Question Image	A. 3, -3, 11 B. 3, 3, 11 C. -3, 3, -11 D. -3, -3, 11
298	Question Image	
299	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
300	Question Image	A. I B. 14 I C. 0 D. None of these
301	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
302	Question Image	
303	Question Image	A. x =0, y =4 B. x = -1, y = 2 C. x = 2, y = 3 D. x = 3, y = 4
304	Question Image	A. a = -1/2, b = -1 B. a = 1, b = 2 C. a = 2, b = 3 D. None of above
305	Question Image	
306	Matrices A = [aij] 2 x 3 and B =[bij] 3 x 2 are suitable for	A. BA B. A² C. AB D. B²
307	Question Image	A. Singular B. Non-singular C. Adjoint D. None of above
308	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
309	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
310	The square matrix A is skew-symmetric when At=	A. -B B. -C C. -A D. D

		D. -D
311	Question Image	A. A⁻ B. A^t C. -A D. A
312	Question Image	A. A B. -A C. A^t D. A⁻
313	Question Image	
314	An equation of the form ax + by = k is homogeneous linear equation when:	
315	System of linear equations is inconsistent if	A. System has no solution B. System has one solution C. System has two solution D. None of above
316	For trival solution |A| is	A. A B. |A| is non zero C. A = 0 D. None of these
317	For non-trival solution |A| is	A. A = 0 B. A^t= 0 C. |A| = 0 D. None of these
318	Trival solution of homogeneous linear equation is	A. (0, 0, 0) B. (1, 2, 3) C. (1, 3, 5) D. a, b and c
319	We also the system of non-homogeneous linear equations by	A. a and b B. b and c C. c and a D. a, b and c
320	If A = $[a_{ij}]$ is (m x n) matrix, then transpose of A is of the order	A. m x m B. m x n C. n x n D. n x m
321	For a square matrix A, if A = A^t, then A is called	A. matrix B. Transpose C. Symmetric D. Non-symmetric
322	Question Image	A. I B. |A| C. |A| I D. None of these
323	If for the matrix A, A^5= I, then A^{-1}=	A. A² B. A³ C. A D. None of above
324	If the trace of matrix A is 5, then the trace of the matrix 3A is	A. 3/5 B. 5/3 C. 8 D. 15
325	Question Image	A. 0 B. 1 C. 2 D. 4
326	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
327	Question Image	A. 6, -12, -18 B. -6, 4, 9 C. -6, -4, -9 D. -6, 12, 18
		A. A(α) - A(β)

328	Question Image	B. A(α) + A(β) C. A(α-β) D. A(α+β)
329	Question Image	A. 4A - 3I B. 3A - 4I C. A - I D. None of these
330	Question Image	A. Symmetric B. Skew-symmetric C. Hermitian D. Skew hermitian
331	Question Image	
332	Question Image	A. a = 4, b = 1 B. a = 1, b = -4 C. a = 0, b = 4 D. a = 2, b = 4
333	Question Image	A. Orthogonal B. Involutary C. Idempotent D. Nilpotent
334	Question Image	
335	Question Image	A. 0 B. abc C. 1/abc D. None of these
336	Question Image	A. 0 B. Independent of a C. Independent of b D. Independent of c
337	Let A is a 3 x 3 matrix and B is its adjoint matrix. If |B| = 64, then |A| =	
338	Question Image	A. K/6 B. 2K C. 3K D. 6K
339	Question Image	A. 2s² B. 2s³ C. s³ D. 3s³
340	Question Image	A. 9/4 B. 4/9 C. 1 D. None of these