

ECAT Mathematics MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	Cofactor of an element a_{ij} is defined by	A. $(-1)^{i+j} A $ B. $(-1)^{i+j}M_{ij}$ C. $(-1)^{i+j}M_{j-1}$ D. None of these
2	An unbiased die is thrown. Then the probability of getting a prime is	A. $1/2$ B. $2/3$ C. $3/4$ D. None of these
3	The term involving x^4 in the expansion $(3-2x)^7$ is	A. $217x^4$ B. $15120x^4$ C. $313x^4$ D. $-25x^4$
4	Range of $3 \sin x$ is _____	A. $[-3, 3]$ B. $[-1, 1]$ C. \mathbb{R} D. None of these
5	If the domain of sequence is finite set then the sequence is called	A. geometric sequence B. infinite sequence C. finite sequence D. arithmetic sequence
6	If the vector $2i + 4j - 7k$ and $2i + 6j + xk$ are perpendicular then $x = ?$	A. 0 B. 2 C. 4 D. 7
7	Rank of matrix $\begin{bmatrix} 1 & 3 & 5 & 0 \end{bmatrix}$ is	A. 1 B. 3 C. 2 D. 4
8	Question Image <input style="width: 100%; height: 15px;" type="text"/>	
9	If a plane passes through the vertex of the cone, then the intersection is	A. an ellipse B. a parabola C. a hyperbola D. a point circle
10	$3x + 4 \geq 0$ is	A. equation B. inequality C. identity D. none of these
11	If $4 > b$ or $a < b$ then $a = b$ is a	A. Additive property B. Transitive property C. Trichotomy property of inequality D. None of above
12	$\sin^{-1} x =$	A. $\sin(\pi/2 - x)$ B. $\sin^{-1}(\pi/2 - x)$ C. $\pi/2 - \cos^{-1}x$ D. $\pi/2 + \cos^{-1}x$
13	Question Image <input style="width: 100%; height: 15px;" type="text"/>	
14	Under multiplication, solution set of is	A. Groupoid B. Abelian group C. Semi group D. All of these
15	Question Image <input style="width: 100%; height: 15px;" type="text"/>	
16	The angle of depression of a point A on the ground from the top of the tower is 30° , then the angle of elevation of the top of the tower at the point A is	A. 60° B. 40° C. 41° D. 30°
17	Question Image <input style="width: 100%; height: 15px;" type="text"/>	A. Commutative law of addition B. Associative law of addition C. Additive identity

C. Additive identity
D. Additive inverse

18 pth term of an H.P. is qr and qth term is pr then the rth term of the H.P. is

A. pqr
B. 1
C. pq
D. pqr^2

19 The maximum value of the quadratic function $f(x) = -2x^2 + 20x$ is

A. 4
B. 3
C. 50
D. 7

20 If the angle between two vectors with magnitude 2 and 15 is 30° then their scalar product is

B. 15
C. 30