

ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	There is no element common in	A. N and W B. E and W C. N and O D. Q and Q'
2	Question Image	
3	ⁿ C ₂ = exists when n is	
4	A chimney is such that on walking towards it 50 m in a horizontal line through its base the angular elevation of its top changes from 30° to 45° . The height of the chimney is	
5	If b_1 , b_2 , b_3 , are in G.P. with first term unity and common ratio r , then the minimum value of b_1 - b_3 + b_5 is equal to	A. 3/4 B. 1/4 C. 1 D. None of these
6	if ag =19,ag=31 are the 6th and 9th term of an AP. and d=4 is the common difference, then 18th term of the sequence is	A. 65 B. 67 C. 71 D. 75
7	Number of lines passing through three non-collinear points is	A. 2 B. 3 C. 1 D. 0 E. ∞
8	The domain of the principal tan function is	
9	The set of complex numbers forms a group under the binary operation of	A. Addition B. none of these C. Division D. Subtraction
10	The complement of set A relative to universal set U is the set	
11	What is the circular measure of the angles between the hands of which at 4 o clock	A. π/6 B. 3π/2 C. π/4 D. 2π/3
12	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
		A. 45° B. 30°
13	Question Image	C. 75° D. 60°
14	The equation of the sphere thro' the origin and making intercepts a, b, c on co-ordinate axes is	A. x ² + y ² + z ² + ax + by + cz = 0 B. x ² + y ² + z ² + z ² + z ² + z ² + y ² + z ^{2²}}}
15	Range of 3 sin x is	A. [-3, 3] B. [-1, 1] C. R D. None of these
16	The fifth term of (a+2x3)17 is	A. 4013 x3a13 B. 2208a13 x12 C. 223x7a18 D. 38080a13 x12
17	If a > 0 they parabola y2 =-4ax lies in	A. I and iv quadrant B. I quadrant C. II and III quadrant

		D. All are incorrect
18	3/2 is	A. An irrational numberB. Whole numberC. A positive integerD. A rational number
19	The set of positive integers, 0 and negative integers is known as the set of	A. Natural numbersB. Rational numbersC. All integersD. Irrational numbers
20	The general term in the expansion of (a+x)n is	A. (r-1)th term B. (r+1)th term C. rth term D. none