ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	The domain of $y = \cos^{-1} x$ is	A. $-\infty < x < \infty$ B. $-1 \leq x \leq 1$ C. $x \leq -1$ or $x \geq 1$ D. None of these
2	if $a_1 = 3$, $d = 7$ and $a_n = 59$, then the number of terms in A.P is	A. 7 B. 9 C. 11 D. 13
3	Question Image	A. an A.P. B. a G.P. C. a H.P. D. None of these
4	Question Image	
5	Roots of the equation $x^2 + 2x + 3 = 0$ are	A. Real and equal B. Real and distinct C. Complex D. None of these
6	The 5th and 13th terms of an A.P are 5 and -3 respectively The first term of the A.P is	A. 1 B. -15 C. 9 D. 2
7	The set of positive integers, 0 and negative integers is known as the set of	A. Natural numbers B. Rational numbers C. All integers D. Irrational numbers
8	If a_1, r and a_n are the first term, common ratio and the nth term respectively of a G. P. then $a_n =$	A. $a_1 r^n$ B. $a_1 r^{n-1}$ C. $a_1 r^{n+1}$ D. $a_1 r$
9	If the sum of even coefficients in the expansion of $(1+x)n$ is 128 then	A. $n=7$ B. $n=9$ C. $n=8$ D. None
10	Question Image	
11	A card is drawn from a pack of cards numbered 2 to 53. the probability that the number on the card is prime number less than 20 is	A. 2 / 13 B. 4 / 13 C. 5 / 13 D. 8 / 13
12	(x-1) is a factor of	A. $2x^3 - 3x^2 + 9$ B. $2x^3 - 5x - 8$ C. $48x^2 - 46x - 9$ D. $x^9 - 1$
13	Question Image	A. 0 B. -1 C. 1
14	Archimedes approximate the function by horizontal function and the area under f by the sum of small	A. Parallelograms B. Squares C. Retangles D. Polygons
15	Question Image	A. 100 B. 99 C. 0 D. none of these
16	If for the matrix A, $A^5 = I$, then $A^{-1} =$	A. A^2 B. A^3 C. A D. None of above

17	What is the period of 5 cot x=?	A. π B. -π C. π/2 D. 2π
18	The coordinates of the point that divides the join of A(-6,3) and B(5, -2) in the ratio 2:3 externally are	
19	Question Image	
20	If a2 = b2 then	A. a = b B. a+b= 1 C. |a+b| =0 D. None