ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	The function sine and Cosine have the closed internal as their range	A. [1, 0] B. [-1, 1] C. [0, 1] D. [-1, 2]
2	The middle term(s) of $(a+x)11$ is	A. 6th term B. 6thor 7th C. 7th term D. 6thand7th
3	$f(x) = 3x^4 - 2x^2 + 7$ is:	A. an even function B. an odd function C. an even and implicit function D. neither even nor a odd
4	Question Image	D. none of these
5	Question Image	A. A natural number B. A rational number C. An irrational number D. A whole number
6	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
7	In a country 55% of the male population has houses in cities while 30% have houses both in cities and in villages find the percentage of the population that has houses only in villages	A. 45 B. 30 C. 25 D. 50
8	-2, 1, 4, 7,.... is _____	A. Harmonic sequence B. Arithmetic sequence C. Geometric sequence D. Arithmetic series
9	If $(1+x-2x^3)^6 = 1+a_1x + a_2x^2 + a_3x^3 + \dots$ the the value of $a_2 + a_4 + a_6 + \dots + a_{12}$ will be	A. 32 B. 31 C. 64 D. 1024
10	The product of cube roots of unity is	A. Zero B. 1 C. -1 D. None of these
11	Question Image	A. $(a + b)c = a \cdot c + bc$ B. $a + b = b + a$ C. $(a + b) + c = a + (b + c)$ D. $a(b+ c) = ab + ac$
12	Question Image	A. Symmetric property B. Cancellation property w.r.t. multiplication C. Reflexive property D. Transitive property
13	The positive value of k for which the equation $x2 + kx + 64 = 0$ has one of the roots 0	A. 4 B. 64 C. 8 D. All values of k
14	Question Image	A. A rational number B. A irrational number C. An even integer D. A factor of 36
15	$\cot(3\pi/2 - \theta) =$ _____;	A. $\tan\theta$ B. $\cot\theta$ C. $-\tan\theta$ D. $-\cot\theta$
16	Question Image	

17	A = B iff	A. All elements of A also the elements of B B. A and B should be singleton C. A and B have the same number of elements D. If both have the same element
18	The real number system contains.	A. Positive Numbers B. Negative numbers C. Zero D. (option a, b and c)
19	The third term of the sequence $a_n = (-1)^{n-1}(n-7)$ is _____	A. 8 B. 4 C. -4 D. 8
20	In (x + iy), y is called as	A. Imaginary part B. Complex number C. Real part D. None of above