ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	an -an-1, ∀n∈N∧n>1 in an A.P is called	A. Common difference B. nth term C. Common ratio D. None of these
3	The line through the centre and perpendicular to the transverse axis is called the	A. Major axis B. Minor axis C. Focal axis D. Conjugate axis
4	A line segment whose end points lie on a circle is called	A. The secant of the circle B. The arc of the circle C. The chord of the circle D. The circumference of the circle
5	If z1 = 2 + 6i and z2 = 3 + 7i then which expression defines the product of z1 and z2	A. 36 +(-32)i B. -36+32i C. 6+(-11)i D. 0, +(-12)i
6	√x = _____ if is a prime number	A. Rational no B. Natural no C. Irrational no D. Complex no
7	The curve f(x,y) = 0 has a central symmetry if	A. f(-x,-y)=f(x,y) B. f(x,-y)=f(x,y) C. f(-x,y)=f(x,y) D. f(-x,-y)≠f(x,y)
8	Associative law of multiplication	A. ab = ba B. a(bc) = (ab) c C. a(b+c) = ab + ac D. (a + b)c = ac + bc
9	The transport of a square matrix is a	A. Row matrix B. Column matrix C. Square matrix D. Null matrix
10	If f(x) = x + 1 then f(z^2-1) is	A. z² B. z²+ 2 C. z²- 2 D. none of these
11	Three numbers are chosen random without replacement from {1, 2, 3, ..., 10}. the probability that minimum of the chosen numbering is 3 or their maximum is 7	A. 7 / 40 B. 5 / 40 C. 11 / 40 D. None of these
12	The greatest integer which divides the number 101^{100}- 1 is	A. 100 B. 1000 C. 10000 D. 100000
13	Multiplying each side of an inequality by (-1) will:	A. Not effect B. Change the sign C. Become zero D. Not defined
14	A person standing on the bank of a river observes that the angle subtended by a tree of the opposite bank is 60°, when he retreats 40 m from the bank, he finds the angle to be 30°. The height of the tree and the breadth of the river are	
15	Question Image	A. Commutative property of addition B. Closure property of addition C. Additive inverse D. Associative property w.r.t. to addition
16	Question Image	D. none of these

17	Question Image	
18	$\sin^{-1}[-1/2]$ = _____	
19	Question Image	
20	The graph of y < 2 is the	A. Left half plane B. upper half plane C. Right half plane D. Lower half plane