ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	Question Image	A. 0 B. 1 C. 2
2	1.4142135... is _____	A. A natural number B. A rational number C. A prime number D. An irrational number
3	Which of the following does not represent absolute value of a vector	A. magnitude B. length C. norm D. number
4	2x = 3 is a conditional equation it is true for	A. 2 B. 3 C. 3/2 D. 2/3
5	The matrix A = [aij]mxn with m ≠n is always	A. Symmetric B. Hermition C. Skew-symmetric D. None
6	Question Image	A. Only one real solution B. Exactly three real solution C. Exactly one rational solution D. Non-real roots
7	Question Image	A. 3x²+ 2 B. 3x²+ 2x + 3 C. x³+ x² D. none of these
8	The sum if 1,3,5,7,9..... up to 20 terms is	A. 400 B. 472 C. 563 D. 264
9	The period of sin x/2 = Cos x/3 is	A. 2p B. 12p C. 13p D. 7p
10	What is the period of cos 6x =?	A. π/2 B. π/3 C. π/4 D. π
11	Latus rectum = 4 x _____	A. focal distance of the vertex B. Chord C. Focus D. 1/2
12	Question Image	A. Natural numbers B. Whole numbers C. Integers D. Rational numbers
13	How many comittees of 5 numbers can be chosen from a group of 8 players person when each committee must include 2 particular persons	A. 8! B. 5!3! C. 5! D. 20
14	A tower subtends an angle of 30° at a point distant d from the foot of the tower and on the same level as the foot of the tower. At a second point, h vertically above the firs, the angle of depression of the foot of the tower, is 60°. The height of the tower is	A. h/3 B. h/3d C. 3h D. 3h / d
15	If A is such that a,A,B are in A.P then A is called	A. A.M B. Common ratio C. Common difference D. None of these

16	The sum of the roots of the equation x2 -6x +2 = 0 is	A. -6 B. 2 C. -2 D. 6
17	The polar form of complex number x ≠ I y =	A. r cos θ+ r sin θ B. r cos θ+ is sin θ C. cos θ+ r sin θ D. i cos θ+ i sin θ
18	If f:A→B is an injective function and second elements of no two of its ordered pairs are equal, then f is called	A. 1-1 and onto B. Bijective C. 1-1 and into D. None of these
19	If f(x) = x^2-x then f(0) is	A. 0 B. 1 C. 2 D. 3
20	Question Image	B. A C. A' D. U