ECAT Pre General Science Mathematics Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	
3	Question Image	
4	The vertex of the graph of the quadratic function f(x) =-x2+6x+1,is	A. (-3,10) B. (-3,-10) C. (3,10) D. (3,-10)
5	Question Image	A. 2^x B. 2^xln x C. 2^xln 2
6	The roots of the equation $ax^2+ bx + c = 0$ are real and equal if	A. b²- 4ac < 0 B. b²- 4ac = 0 C. b²- 4ac > 0 D. None of these
7	Question Image	
8	Which is an explicit function	A. y = x²+ 2x - 1 B. x²+ xy + y²= 2 C. x²+ y²= xy + 2 D. All are
9	Question Image	
10	If z_1 =√-36 ,z_2 =√-25,z3 =√-16 then	A. 15 B. 15i C. -15i D. -15
11	Cosec 60° = _____	
12	The number of permutations of n objects of which there are $n_1$like of one kind, $n_2$like of the second kind and $n_3$like objects of third kind are	
13	The are of the circle centred at (1 , 2) and passing through (4 , 6) is:	A. 10π B. 25π C. 5π D. 25/2π
14	With usual notations b2 = a2 + c2 -2ac cos is called_____;	A. None of these B. Law of sines C. Law of consines D. Law of tangents
15	The line y = 4x + c touches the hyperbola $x^2- y^2= 1$ if	
16	sin 3a = _____;	A. 3sin a - 4sin3a B. 4sin a -3 sin3 a C. 3 cos3 a -cosa D. 4cos3 a - 3cos a
17	tan (π-θ) = _____	A. - sinθ B. - tanθ C. - cosθ

		D. - cot<span style= color: rgb(34, 34, 34); font-family: "Times New Roman"; font-size: 24px; text-align: center; background-color: rgb(255, 255, 224);">θ
18	A fraction in which the degree of the numerator is greater than or equal to the degree of the denominator is called	A. A proper fraction B. An improper fraction C. An equation D. An identity
19	In school there are 150 students Out of these 80 students enrolled for mathematics class 50 enrolled for English class and 60 enrolled for Physics class The student enrolled for English cannot attend any other class but the students of mathematics and Physics can take two courses at a time Find the number of students who have taken both physics and mathematics.	A. 40 B. 30 C. 50 D. 20
20	Question Image	A. A = x, B = 1 B. A = 0, B = 2 C. A = -1, B = 1 D. A = x-1, B = x+1