ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	Question Image	
2	Question Image	
3	Trival solution of homogeneous linear equation is	A. (0, 0, 0) B. (1, 2, 3) C. (1, 3, 5) D. a, b and c
4	For non-trival solution |A| is	A. A = 0 B. A^t= 0 C. |A| = 0 D. None of these
5	Question Image	A. perpendicular vectors B. concurrent vectors C. parallel vectors D. none of these
6	The point which is closet to the focus of a parabola is:	A. vertex B. Chord C. Focus D. Directix
7	A triangle has ____ elements	A. 3 B. 4 C. 5 D. 6
8	The middle term of $(x-y)^8$is	A. 25 x⁴y⁴ B. 70 x⁴y⁴ C. 120 x⁴y⁴ D. 97x⁴y⁴
9	The roots of ax2+bx+c=0 are	A. Rational ⇔ b2 -4 ac ≥ 0 B. Irrational ⇔ b2-4 ac > 0 C. Real ⇔ b2-4 ac ≠ 0 D. Rational⇔ b2-4 ac = 0
10	Question Image	A. x =0, y =4 B. x = -1, y = 2 C. x = 2, y = 3 D. x = 3, y = 4
11	If a,b,c are three non-coplanar vector then [a +b,b +c,c +a] = _____	A. [a.b.c] B. 2[a,b,c] C. [abc]-2 D. 2[abc]2
12	(1,0) is in the solution of the inequality	A. 3x + 2y > 8 B. 2x - 3y < 4 C. 2x + 3y > 3 D. x - 2y < -5
13	An equation which holds good for all values of variables is called	A. Equation B. Conditional equation C. Constant D. None
14	Question Image	A. - cos x B. sin x C. - sin x D. sec x
15	$\cos^4\theta$- $\sin^4\theta$=	A. cos4θ B. cos2θ

		C. -sin<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 D. sin2θ
16	Question Image	B. ln(x²- x + 1) + c D. ln(2x - 1) + c
17	If Sin A = sin B, cos A = cos B, then the value of A in terms of B is	
18	Question Image	
19	Range of $\sin\theta$ is	
20	The general value of θ satisfying the equation 2 $\sin^2\theta$ - 3 sinθ-2 = 0 is	