ECAT Mathematics Online Test

Sr	Questions	Answers Choice
1	Equation of normal to the circle x2 + y2 =25 at (5cosθ,5sinθ)	A. xcosθ+ysinθ =5 B. xcosθ -ysinθ =0 C. xsinθ -ycosθ =0 D. None of these
2	Question Image	
3	Question Image	
4	A vector with magnitude one is called	A. constant vector B. unit vector C. zero vector D. null vector
5	The graph of the quadratic equation is	A. Straight line B. Circle C. Parabola D. elipse
6	The arbitrary constants involving in the solution can be determined by the given conditions. Such conditions are called	A. Boundaries B. Variable separable C. Initial values D. None
7	Question Image	A. 2x B. 3x² C. 1 D. 0
8	Question Image	
9	Question Image	D. all
10	π is the ration of	A. Area of a circle to its diameter B. Area of a circle to its radius C. Circumference of a circle to its diameter D. Circumference of circle to its radius
11	The solution of the equation 3 $\tan^2 x = 1$ is _____	D. none of these
12	The area of a sector with central angle of 0.5 radians in a circular region whose radius is 2m is	
13	Tan 30° = _____	
14	If the angle of a triangle are in the ratio 2 : 3 : 7, the triangle is	A. Obtuse B. Acute C. Right angle D. Isosceles
15	Question Image	A. The law of sines B. The law of consines C. The law of tangents D. None of these
16	Sand falls from a tube in such a way that it forms a cone whose height is always 4/3 times the radius of its base and radius of the base increases at the rate of 1/8 cm/sec. When this radius is 1 meter, the rate at which the amount of sand increases is	
17	Only one of the root of ax2 + bx + c =0, a≠ 0 is zero if	A. c = 0 B. c = 0,b≠ 0 C. b = 0,c = 0 D. b = 0,c≠ 0
18	Question Image	
19	θ and 2kπ+θ are the _____ angles	A. Quadrantal angles B. Coterminal C. Allied D. None
20	Question Image	

20	Question image