Mathematics ECAT Pre Engineering Online Test

Sr	Questions	Answers Choice
1	sin(π+θ)=_____;	A. sinθ B. cosθ C. -sinθ D. -cosθ
2	tan(2π+θ) = _____;	A. tanθ B. -tanθ C. cotθ D. -cotθ
3	sin(π/2+θ) = _____;	A. sinθ B. cosθ C. -sinθ D. -cosθ
4	cos(π/2-θ) = _____;	A. cosθ B. sinθ C. -cosθ D. -sinθ
5	cos(a-β) = _____;	A. sin a cosβ + cos a sinβ B. sin a cos β - cos a sinβ C. cos a cos β + sin a sinβ D. cos a cosβ - sin a sinβ
6	If f (x) is defined and continuous then f (x) is always	A. Rational function B. Trigonometric function C. Logarithmic function D. All are correct
7	The domain and range of a trigonometric function can be allocate by their	A. graph B. Continuity C. Discontinuity D. Periods
8	The trigonometric function are continuous whenever	A. They are defined B. their limit exist C. Their period is given D. All are incorrect
9	The behavior of trigonometric function is called	A. Continuity B. Discontinuity C. Periodicity D. Smoothness
10	The number of x-intercepts of y= sin x in his period	A. 0 B. 1 C. 2 D. 3
11	The period of the trigonometric function y = sin x cos x is	A. 2π B. π C. 4π D. π / 2
12	The equation of vertical asymptotes of y = cos ecx is	A. x = 0 B. y = 0 C. x =∞ D. y =∞
13	The perimeter of a sector of a central angle of measure 1 radian out off an are of length 35cm is	A. 35 cm B. 70 cm C. 140 cm D. 105 cm
14	Which one is quadrantal angle	A. 8181710° B. 2345° C. -8181180° D. -2344°
15	The vertex of the standard position angles lies on	A. (0,0) B. (0,1) C. (1,0) D. (1,1)

16	θ and 2kπ+θ are the _____ angles	A. Quadrantal angles B. Coterminal C. Allied D. None
17	The angles with some initial and terminal sides are called	A. Quadrantal angles B. Coterminal angles C. Allied angles D. None
18	The point lying on the terminal rat of -270° is	A. (1,0) B. (0,-1) C. (0,1) D. (-1,0)
19	If the terminal rays of an angle falls on any axis then the angle is called	A. Allied angle B. Acute angle C. Standard position D. Quadrantal angle
20	If the radius of a circle is increased by 1 then area of circle will be	A. π r2 B. π(r+1)2 C. π r2 +1 D. 2π (r+1)
21	Domain of 1+cot2θ=csc2θ is	A. [0,π] B. R-{x/x=nπ,n∈ z} C. (-∞,+∞) D. [-1,1]
22	csc(-π/2) = _____;	A. 0 B. 1 C. -1 D. Undefined
23	tan270° =_____;	A. 0 B. 1 C. -1 D. Undefined
24	Which of the following is a quadrantal angle	A. 100° B. 200° C. 170° D. 270°
25	The area of sector with central angle of 1 radian in a circular region whose radius is 2m is	A. 0.5m2 B. 2m2 C. 1m2 D. 4m2
26	What is the circular measure of the angles between the hands of which at 4 o clock	A. π/6 B. 3π/2 C. π/4 D. 2π/3
27	The central angle of an arc of a circle whose length is equal to the radius of the circle is called one	A. Degree B. Second C. Minute D. Radian
28	1 radian = _____	A. 60° B. 57.296° C. 57.2° D. 180°
29	1 degree = _____	A. 0.00175 rad B. 0.175 rad C. 0.0175 rad D. 1.75 rad
30	If circumference of circle is divided into 360 congruent parts the angle subtended by one part at the centre of circle is	A. 1 degree B. 1 second C. 1 minute D. 1 radian