NAT I Engineering Mathematics

Sr	Questions	Answers Choice
1	The center of a circle of radius 10 is on the origin which of the following points lies with in the circle	A. (10,0) B. (8,8) C. (8,4) D. (0,10)
2	If Sin θ =Cosθ then θ=	A. 30° B. 45° C. 60° D. 90°
3	If 2 Sin x Cos 2 x = Sin x then?	A. X = nπ+ π/6 B. X = nπ +π/3 C. X = nπ +1 D. X = nπ + π/2
4	6 is	A. A prime integer B. An irrational number C. A rational number D. A odd integer
5	F(x) = xx decreases in the interval	A. (0,e) B. (0.1) C. (-∞.0) D. None
6	Sin (2π -θ) =_____.	A. Cosθ B. -Sinθ C. -Sinθ D. -cosθ
7	∫sec (ax + b) tan(ax + b) dx=_____	A. sec(ax + b)/a B. sec² (ax + b)/2 C. sec(ax + b)/x D. 1/2
8	The gradient of the line joining (1,4) and (-2,5) is	A. 3/8 B. -2 2/3 C. -1/3 D. 2
9	If f (x) = x/x^2- 4 then which is not included in the domain of f(x)	A. 0 B. -2 C. 1 D. 4
10	If a line passes through origin then the equation of the line is	A. y = m/x B. y = mx C. x = my D. None
11	√23 is	A. A rational number B. A irrational number C. An even integer D. A factor of 36
12	The angle a (0° < a< 180°) measured counterclockwise from positive x-axis to a non-horizontal straight line / is called the	A. Rotation B. Inclination C. Radian D. None
13	d/dx (3y^4) =	A. 12y³ dy/dx B. 8y³ C. 8y³ dy/dx D. 12y³
14	If the vector 2i+4j-2k and 2i +6j+xk are perpendicular then x-7	A. 4 B. 8 C. 14 D. 7
15	An angle of one radian is equivalent to	A. 90^o B. 60^o C. 67^o D. 57^o,

		18^o
16	If $k_1 : k_2 = 1:1$ then the point P dividing the line is	A. Mid point B. Extreme left point C. Extreme Right point D. Plies out side k₁ and k₂
17	What is the domain of $y = Cot^{-1} x$?	A. Set of irrational numbers only B. Set of all real numbers C. Set of integers only D. Set of complex numbers only
18	The sum of the interior angles for a 16 sided polygon is	A. 0 B. ω C. 1 D. 1 / ω
19	The mid point of the line joining (=1,-3) to(3,-5) is	A. (1, 1) B. (1,-1) C. (2, -8) D. (1, -4)
20	The equation of two polynomials P(x)/Q(x) where $Q(x) \neq 0$ with no common factor is called	A. 12 B. 1 C. 10 D. -10