STA-301 Quiz OnlineTest

Sr	Questions	Answers Choice
1	Function f is differentiable function if it is differentiable on the interval	A. (-∞,∞) B. (a,∞) where a is any negative integer C. (0,∞) D. None of these
2	a function f is ___ on a closed interval [a,b] ,then f has both a maximum and minimum value on [a,b]	A. Continuous B. Discontinuous C. None of these
3	At which points two curves $y=x^2$and y=x+6 intersect?	A. x=0 and x=2 B. x=0 and x=3 C. x=2 and x=3 D. x=-2 and x=3
4	If a quantity y depends on another quantity x in such a way that each value of x determines exactly one value of y,we say that y is _____ of x	A. relation B. Function C. Nota function D. Not a Relation
5	If f is a twice differentiable function at stationary point $x_o$an $f'(x_o)$ <0 then f has relative _____ At x_o	A. Minima B. Maxima C. None of these
6	Consider a function h(x) and a constant c then d/dx{(c){h(x)}}	A. 0 B. d/dx((h(x))) C. d/dx((h(cx))) D. cd/dx((h(x)))
7	30^o	A. π/3 B. π/4 C. π/6
8	The power rule $d/dx[x^n]=nx^{n-1}$holds if n is	A. an integer B. a rational number C. an irrational number D. all of the above
9	The tan(x) is discontinuous at the point where	A. Cos(x)=0 B. Sin(x)=0 C. Tan(x)=0
10	Center and radius of the circle is $(x+5)^2+(y-3)^2=16$ is	A. (-5,3),4 B. (5,-3),16 C. (5,-3),4 D. None of these
11	The pythagoras theorem describe the relationship between the sides of	A. right angle triangle B. isoceleous triangle C. equilateral traingle
12	According to Power -Rule of differentiation ,if $f(x) =x^n$where n is a real number,then $d/dx[x^n]$	A. xⁿ⁻¹ B. nxⁿ⁻¹ C. (n-1)xⁿ⁻¹
13	lim x→0 sin2x/x____	A. 2 B. 4 C. 1 D. 8

14	tan x is continuous everywhere except at points	A. +- kπ/2 (k=1,3,5....) B. +- kπ/2 (k=2,4,6....) C. Not Sure
15	According to the power rule of differentiation,if $f(x)=x^n$where n is a real number then $d/dx[x^n]=$	A. xⁿ⁻¹ B. nxⁿ⁻¹ C. nxⁿ⁺¹
16	no of x and y are intercept for the equation y=1/x	A. Two x intercepts B. Two y intercepts C. No x and y intercept correct D. None of these
17	If a function g is differentiable at a point x and function f is differentiable at a point g(x),then the __ is differentiable a point x.	A. Composition (fog) B. Quotient f/g C. product f.g D. Sum (f+g)
18	For a function f(x) to be continuous on interval (a,b) the function must be continuous	A. At all point in (a,b) B. Only at point a,b C. At mid point of a and b D. None of these
19	Let $y=(x^3+2x)^{37}$ Let Which of the following is correct?	A. dy/dx=(37)(x³+2x)³⁶ B. dy/dx=(111x²)(x³+2x)³⁶ C. dy/dx=(111x²+74)(x³+2x)³⁶ D.
20	If x>0 then d/dx[lnx]=_____	A. 1 B. x C. 1/x D. ln 1/x