STA-301 Quiz OnlineTest

Sr	Questions	Answers Choice
1	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
2	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. None of these B. Maxima C. Minima
3	If the geometric series $a+ar+ar^2+ar^3.....+ar^{k-1}$ which of the following is true for the given series	A. converges B. Diverges C. Give no information
4	$\log_b 1/t$ =_____	A. log_bt B. 1-log_bt C. 1+log_bt D. -log_bt
5	The lim x→a f(x)=___ where f(x)=k The k is constant	A. K+1 B. K+2 C. k
6	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. not a function D. not a relation
7	If a slope m of a nonvertical line is m=1 then the angle of inclination of the line is	A. π /4 B. π /2 C. π /5
8	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)
9	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
10	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
11	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
12	An object is displaced 1m by a force of 1N then the work done	A. 2 B. 1 C. 0
13	The equation $(x+4)^2+(y+1)^2=6$ represent a circle having center at____ and radius	A. (-4,1),undertoot 6 B. (-4,-11),undertoot 6 C. None of these
14	$(x^2-4)/(x-2)$ Natural domain is	A. (-∞,2)U (2,+∞) B. (-∞,2) C. (-∞,0) D. None of these
15	y=f(x) then the average rate of change of y with with respect to x over the interval $[x_o,x_1]$ is the _____ joining the points $(x_o ,f(x_o))$ and $(x_1 f(x_1))$ on the graph of f	A. Slope of the secant line B. Slope of the tangent line C. Secent line D. none of these
	Which of the following is the spring constant k if a spring	A. 3 x

16	constant whose natural length is 2m exerts a force of 3N when started 1m beyond its natural legth?	B. 3 N/m C. 2 m
17	In alternating series test ,which one of the following condition must be satisfied	A. lim k→∞ a_k=1 B. a₁>a₂>a_{3.....>a}k C. a₁<a₂<a_{3.....<a}k
18	If the partial sum of the series is finite then the series will be	A. Divergent B. Convergent C. Give no information
19	Which of the following option is true for the sequence a_n= $\{1/n\}_{n=1}$which of the following option is true for the sequence	A. Increasing B. Decreasing C. Non increasing D. Non Decreasing
20	For a sequence $\{a_n\}$ if the ration of successive terms $a_{n+1}/a_n<1$ then the sequence is known as :	A. increasing B. decreasing C. Non increasing D. non decreasing