MTH-101 Final Term Exams Preparation Virtual University

Sr	Questions	Answers Choice
1	lim x→0 sin2x/x____	A. 2 B. 4 C. 1 D. 8
2	Which of the following is true for the sequence {n}∞ n=0?	A. Non increasing B. non decreasing C. increasing D. decreasing
3	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
4	For a sequence $\{a_n\}$ if the difference between successive terms $a_{n+1}-a_n<=0$ then the sequence is known as	A. increasing B. decreasing C. non decreasing D. non increasing
5	The tan(x) is discontinuous at the point where	A. Cos(x)=0 B. Sin(x)=0 C. Tan(x)=0
6	Let a function be defined on an interval and let x_1 and $x_2$denotes two distinct points in that interval ,If $f(x_1)= f(x_2)$ for all points x_1 and$x_2$then which of the following statement is correct ?	A. f is decreasing function B. f is increasing function C. f is constant function
7	if 2x-y=-3 they dy/dx=?	A. 2 B. -2 C. 0 D. -3
8	If there is some function F such that d/dx[F(x)]=f(x) then any of the function of the form F(x)+C is _____ of f(x)	A. Derivative B. Antiderivative C. Slope D. Maximum value
9	Which of the following is the spring constant k if a spring constant whose natural length is 2m exerts a force of 3N when started 1m beyond its natural legth?	A. 3 x B. 3 N/m C. 2 m
10	$\{1/2^n\}^n1$ represent the sequence	A. -1/2,-1/4,-1/8 B. 1/2,1/4,1/7=8 C. 0,1,1/2,1/4
11	d/dx[cosec x]	A. 1/1+cos²x B. -cos x/1-cos²x C. 1/1-cos²x
12	What is the base of natural logaithem?	A. 2.71 B. 10 C. 5 D. Any real number
13	Which operation can not be applied on the function?	A. Subtraction B. Cross Product C. Addition D. Composition
14	$\log_b 1/c$=_____?	A. log_bc B. 1-log_bc C. -log_bc D. 1+log_bc
15	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
16	d(sec x)/dx=?	A. sec x tan x B. sec x tan y C. cosec x cot x

17	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
18	The pythagoras theorem describe the relationship between the sides of	A. right angle triangle B. isoceleous triangle C. equilateral traingle
19	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
20	Let $y=(x^3+ 2x)^{37}$ which of the following is correct?	A. dy/dx=37(x³2x) ³⁶ B. dy/dx=111x² (x³2x)³⁶ C. dy/dx=(111x²+74) (x³2x)³⁶