MTH-101 Final Term Exams Preparation Virtual University

Sr	Questions	Answers Choice
1	If f is a continuous function such that $\lim_{x\to+\infty}=+\infty$ and$\lim_{x\to+\infty}=+\infty$ the f has on	A. maximum value but no minimum B. minimum value but not maximum C. both maximum and minimum value
2	If f''(x)<0 on an open interval (a,b) then which of the following statement is correct	A. f is concave up on (a,b) B. f is concave down on (a,b) C. f is linear on a,b
3	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
4	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
5	Suppose that f and g are differentiable function of x then d/dx[f][g]=	A. [f']][g]-[f][g']/g² B. [f']][g'] C. [f']][g]+[f][g']
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	if xy=4 they dy/dx ?	A. -1/x² B. 4/x² C. -4/x²
8	d(tan x)/dx =___	A. sec x B. sec²x C. cosec²x D. cosec x
9	$\lim x\to0^+$ln x/1/x=_____	A. 1 B. 0 C. none of these
10	lim x→0 sin2x/x____	A. 2 B. 4 C. 1 D. 8