

MTH-101 Final Term Exams Preparation Virtual University

Sr	Questions	Answers Choice
1	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
2	An object is displaced 1m by a force of 1N then the work done	A. 2 B. 1 C. 0
3	The equation $(x+4)^2+(y+1)^2=6$ represent a circle having center at ____ and radius	A. $(-4,1)$, $\sqrt{6}$ B. $(-4,-1)$, $\sqrt{6}$ C. None of these
4	$(x^2-4)/(x-2)$ Natural domain is	A. $(-\infty, 2) \cup (2, \infty)$ B. $(-\infty, 2) \cup (2, \infty)$ C. $(-\infty, 0) \cup (0, \infty)$ D. None of these
5	$y=f(x)$ then the average rate of change of y with respect to x over the interval $[x_0, x_1]$ is the _____ joining the points $(x_0, f(x_0))$ 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
6	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 legh?	A. 3 x B. 3 N/m C. 2 m
7	In alternating series test ,which one of the following condition must be satisfied	A. $\lim_{n \rightarrow \infty} a_n = 0$ B. $a_n > 0$ and $a_n < a_{n+1}$ C. $a_n > 0$ and $a_n < a_{n+1}$ D. $a_n > 0$ and $a_n < a_{n+1}$
8	If the partial sum of the series is finite then the series will be	A. Divergent B. Convergent C. Give no information
9	Which of the following option is true for the sequence $a_n = \{1/n\}_{n=1}^{\infty}$ which of the following option is true for the sequence	A. Increasing B. Decreasing C. Non increasing D. Non Decreasing
10	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