

MTH-101 Final Term Exams Preparation Virtual University

Sr	Questions	Answers Choice
1	What is the base of natural logarithm?	A. 2.71 B. 10 C. 5 D. Any real number
2	Suppose that we apply Newton method to approximate the real solution of the equation $x^3 - 2x^2 - 1 = 0$ if we start at $x_1 = 2$, then which of the following is value of x_2 ?	A. 6 B. 2.25 C. 0 D. 2
3	Which of the following is true for the sequence $\{n\}^\infty$ $n=0$?	A. Non increasing B. non decreasing C. increasing D. decreasing
4	30°	A. $\pi/3$ B. $\pi/4$ C. $\pi/6$ D. $\pi/2$
5	If $2x - y = -3$ then $dy/dx = ?$	A. 2 B. -2 C. 0
6	Which of the following are first two terms for the Taylor series of $f(x) = e^{-x}$ at $x=0$?	A. $1 + (1)(x-0)$ B. $1 + (-1)(x-0)$ C. $1 + (-1)(x+0)$
7	$\log_b a^r = \underline{\hspace{2cm}}$?	A. $\log_{b^r} a$ B. $r \log_{b^r} a$ C. $\log_{b^r} a$ D. $r \log_{b^r} a$
8	$\log_b ac = \underline{\hspace{2cm}}$	A. $\log_{b^r} a + \log_{b^r} c$ B. $\log_{b^r} a - \log_{b^r} c$ C. $\log_{b^r} a$ D. $\log_{b^r} a * \log_{b^r} c$
9	How many critical points exist for a function f if $f'(x) = (x-3)(x-2)$	A. 0 B. 1 C. 3 D. 2
10	If $x > 0$ then $d/dx[\ln x] = \underline{\hspace{2cm}}$	A. 1 B. x C. $1/x$ D. $\ln 1/x$