



# **Vu Buddy- MTH202**

1. A function whose range consists of only one element is called.....

- a. Identity function
- b. Onto function
- c. Constant function
- d. One to one function

2. A sequence whose terms alternate in sign is called an \_\_\_\_\_.

- a. Series
- b. Alternating sequence
- c. None of the above
- d. Cauchy sequence

3. Real valued function is a function that assigns \_\_\_\_\_ to each member of its domain.

- a. negative real number
- b. any arbitrary real number
- c. only a real number
- d. positive real number

4. Let  $f(x) = 3x$  and  $g(x) = x + 2$  define functions  $f$  and  $g$  from  $R$  to  $R$ , then  $(f \circ g)(x)$  is \_\_\_\_\_

- a.  $3x + 2$
- b.  $4x + 2$
- c.  $3x^2 + 6x$
- d.  $2x - 2$

5. How many one-to-one functions are there from a set with seven elements to a set with six elements.

- a. 7
- b. 1
- c. 6
- d. 0

6.  $x+a, x+3a, x+5a, \dots$  is a/an \_\_\_\_\_.

- a. geometric series
- b. arithmetic sequence
- c. arithmetic series
- d. geometric sequence

7. A constant function is one to one iff its \_\_\_\_\_ is a singleton.

- a. Range
- b. Domain

8. [math-block] {\rm{Let }}\,g{\rm{ be a function defined by }}g\left( x \right) = x + 1.{\rm{Then the composition of }}g\circ g\left( x \right){\rm{ is }}\\_\\_\\_\\_\\_\\_[/math-block]

- a. [math-block] x + 1 [/math-block]
- b. [math-block] x [/math-block]
- c. [math-block] {x^2} + 2x + 1 [/math-block]
- d. [math-block] x + 2 [/math-block]

9. Let  $f(2) = 3, g(2) = 3, f(4) = 1$  and  $g(4) = 2$  then the value of  $f \circ g(4)$  is .....

- a. 2
- b. 1
- c. 4
- d. 3

10. 1,2,4,8,16.....is a/an

- a. arithmetic sequence
- b. arithmetic series
- c. not a sequence
- d. geometric sequence

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