

**MTH101 - SOLVED Online Quiz No.2 Fall 2013**

1.If  $\sin(3x^2) / 6 + C$  is the anti-derivative of a function  $f(x)$ , then  $f(x) =$

\_\_\_\_\_.

$x^2 \cos(3x^2)$ .

**$x \cos(3x^2)$ .**

$x \cos(3x)$ .

none

2.Which of the following is the integral of  $\sin(3x+5)$  with respect to  $x$  ?

$-1/3[-\cos(3x+5)]$

**$1/3[-\cos(3x+5)]$**

$1/15[-\cos(3x+5)]$

$-\cos(3x+5)$

3.If 'n' goes from 1 to 3 and the summation of 'na' = 6a, then the value of 'a' is -----

**6**

-6

1

undetermined

4.If 'n' goes from 1 to any large ODD number then the summation of  $(-1)^n =$  -----

**-1**

0

1

that specific large ODD number

5. $1+2+3+\dots+t$  equals

$n(n+1)/2$

**$t(t+1)/2$**

$n(n+1)(2n+1)/6$

none

6.If definite integral of  $f(x)=\sin x$  over  $[a,0]$  is equal to '-2' then the value 'a' is-----

$\pi/2$

**$\pi$**

0

$-\pi$

7.If the definite integral of  $f(x)=3$  over  $[1,x]$  is greater than '12' then -----

$x > 12$

$x > 5$

**$x > 3$**

$x > 1$

8. If  $[-8, 8]$  is subdivided into '16' equally spaced subintervals, then the RIGHT end point of 13th sub-interval will be-----.

2

3

4

**5**

9. Which of the following is the integral of  $\sin(2x)$ ?

$\cos(2x) + C$

$2\cos(2x) + C$

**$-(1/2)\cos(2x) + C$**

none

10. Sum of cubes of  $n$ -terms of a series whose  $n$ th term is ' $n$ ' = ---

Square of  $n(n+1)(2n+1)/6$

Square of  $n(n+1)/2$

**Square of  $(n+1)/2$  (just a guess)**

Square of  $n(n+1)/6$

## MTH101 Quiz No-2 Fall 2013

Area of a rectangle whose width is 5 units and length is 6 units will be ....

Select correct option:

11 units

22 units

30 units

Quiz Start Time: 08:58 PM

Question # 2 of 10 ( Start time: 08:59:55 PM )

$1+2+3+\dots+1000$  equals -----

Select correct option:

1000

75

Time Leftsec(s)

Total Marks: 1

3000

500500

None of these

Quiz Start Time: 08:58 PM

Question # 3 of 10 ( Start time: 09:01:17 PM )

Integration of  $4\cos x$  with respect to  $x$  is.....

Select correct option:

$4\sin x$

$-4\sin x$

74

Time Leftsec(s)

Total Marks: 1

Quiz Start Time: 08:58 PM

Question # 4 of 10 ( Start time: 09:02:47 PM )

If Newton's Method succeeded to get the approximate solution of an equation, then which of the following is NOT true about it.

Select correct option:

The slope of the tangent line (at any approximated point) must be non zero.

The tangent line (at any approximated point) is not parallel to  $x$ -axis.

The sequence of approximated points not convergent to the exact solution

None of these.

85

Time Leftsec(s)

Total Marks: 1

Quiz Start Time: 08:58 PM

Question # 5 of 10 ( Start time: 09:04:16 PM )

Integral of  $(1-2x)$  from  $[0,1]$  is .....

Select correct option:

1

86

Time Leftsec(s)

Total Marks: 1

2  
0  
3

Quiz Start Time: 08:58 PM

Question # 6 of 10 ( Start time: 09:05:21 PM )

If  $f(x) = \cos(x) + x$ , then which of the following is NOT true about it.

Select correct option:

Its anti – derivative is  $\sin(x) + x^2/2 + 4$ .

Its anti – derivative is  $\sin(x) + x^2/2 + 6$ .

Its anti – derivative is  $\sin(x) + x^2/2 + 10$ .

Its anti – derivative is  $-\sin(x) + x^2/2 + 4$ .

78

Time Leftsec(s)

Total Marks: 1

Quiz Start Time: 08:58 PM

Question # 7 of 10 ( Start time: 09:06:54 PM )

Integral of  $5^x$  is NOTE:  $x^n$  means 'x' to the power 'n'

Select correct option:

$(1/3)5^3$

10

25x

None of these

Bottom of Form

84

Time Leftsec(s)

Total Marks: 1

Quiz Start Time: 08:58 PM

Question # 8 of 10 ( Start time: 09:08:19 PM )

71

Time Leftsec(s)

Total Marks: 1

In the indefinite integral of  $x(y^2)$  w.r.t 'y' , the term ..... serve to identify the independent variable in the function.

Select correct option:

X

Y

dy

$y^2$

Quiz Start Time: 08:58 PM

Question # 10 of 10 ( Start time: 09:11:20 PM )

If  $f(x) = \sin(5x)$ , then which of the following is NOT true about it.

Select correct option:

Its anti – derivative can be

$-\cos(5x) + 3$

Its anti – derivative can be

$-\cos(5x) / 5 + 4.$

Its anti – derivative can be

$-\cos(5x) / 5 + 6.$

Its anti – derivative can be

$-\cos(5x) / 5 + 10.$

76

Time Leftsec(s)

Total Marks: 1