# Assignment NO. 1 MTH603 (Spring 2020)

**Maximum Marks: 20 Due Date: 08 -06-2020**

**DON’T MISS THESE: Important instructions before attempting the solution of this assignment:**

**• To solve this assignment, you should have good command over 01 - 8 lectures.**

* **Try to get the concepts, consolidate your concepts and ideas from these questions which you learn in the 01 to 8 lectures.**

**• Upload assignments properly through LMS, No Assignment will be accepted through email.**

**• Write your ID on the top of your solution file.**

* **Don’t use colourful back grounds in your solution files.**
* **Use Math Type or Equation Editor Etc. for mathematical symbols.**
* **You should remember that if we found the solution files of some students are same then we will reward zero marks to all those students.**
* **Try to make solution by yourself and protect your work from other students, otherwise you and the student who send same solution file as you will be given zero mark.**
* **Also remember that you are supposed to submit your assignment in Word format any other like scan images etc. will not be accepted and we will give zero mark corresponding to these assignments.**

**Question #1:**

Find a root of an equation taking initial value , using Newton Raphson method correct up to four decimal places.

Important: Do all the calculation in radians otherwise two marks will be deducted if done in degrees.

**Solution No.2**

Given

Hence,

as  in Radians and ****

Now,



Now,

Applying Newton Raphson Formula.

Since

Firstly,

For

Now,

Now,

Similarly For

Now,

Now,

Since roots of and are same.

Hence, The Required Root is 0.4668

**Question #2:**

Evaluate by Newton Raphson method correct up to four decimal places.

**Solution No.2**

Here

So,

We Will Take

As The Formula Is

So,

Firstly,

Now n=1



Now,

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Since

The Roots of and are same. So, The Required Root is 12.9228