

# **COMSATS** University Islamabad

## **Attock Campus**

# **Department of Mathematics**

#### Assignment # 04

Class: MSc-II

Subject: Real Analysis II

Due Date: 10-05-2019

Course Code: MTH322

**Instructor:** Dr. Atiq ur Rehman **Marks:** 10

#### Question #1

Consider a real line and mark the points  $\pi$ , e and 180 on the real line.

#### **Question #2**

Give definition of the sine and cosine functions. Also write the domain of your defined functions.

#### **Ouestion #3**

Prove that  $\sin^2 x + \cos^2 x = 1$ , where  $x \in \mathbb{R}$ .

### **Academic Honesty Requirements:**

You are encouraged to work with others in the completion of assignments but it doesn't include copying. However, in the spirit of Academic Honesty, which includes crediting others for their contribution to your work, please include one of the following statements with every submitted assignment on title page:

- 1. I worked alone on this assignment.
- 2. I worked with the following: List their full names. Include their relationship to you if they are not also a member of this class.