Fall 2023

Discrete Mathematics

Assignment No. 2

Section Incharge: Muhammad Nadeem

Total Marks: 10

Due date: 12th January, 2024

Question 1: **Marks=05**

Show that

$$a + ar + ar^2 + ar^3 + \cdots + ar^{n-1} = \frac{a(1-r^n)}{(1-r)} \quad , r \neq 1$$

by using Principle of Mathematical Induction.

Question 2: **Marks=05**

What is the GCD of 2740 and 1760 using Euclidean algorithm?