**Registration#\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

University of Engineering & Technology Lahore

Experiment # 4

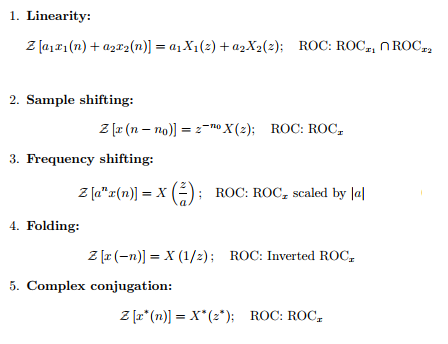
Title: Z Transform-I

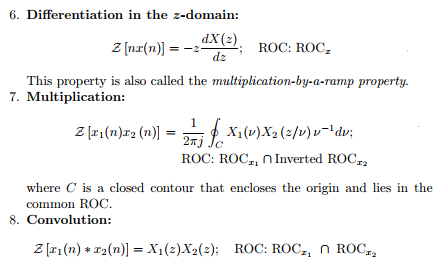
Equipment Required: Personal computer (PC) with windows operating system and MATLAB software

Theory:

Z transform is an important tool for the analysis and design of discrete time signals. It transforms a signal of time domain into a function of variable z. For discrete time signal x(n), z transform is defining as,

The properties of the z-transform are generalizations of the properties of the discrete-time Fourier transform.





Example 1:

Find z transform of

Task1:

1. Find out the answers of the questions above on paper.
2. Verify your answers using MATLAB.

Task2:



Verify result using convolution property.