Program: BS Telecom

Summer-20 Final Term Assignment

Engr.Muhammad Shakeel Khalil Max Marks: 80

**Q.No.1.(a). Differentiate between signals and systems.**

**(b). Explain the following signals with the help of diagram:**

**i. Continuous –Time Signals ii. Discrete- Time Signals**

**iii.Periodic Signals iv.Exponential & Sinusoidal Signals.**

**Q.No.2. Explain Continuous –Time and Discrete- Time Mathematical models of Systems.**

**Q.No.3.** Explain with examples:

i. Memory-less Systems.

ii. Linear Systems.

**Q.No.4.** Which properties (linearity, causality, time-invariance, stability and memory) are possessed by the following systems:

a) y[n] = 3 x[n] – 4 x[n-1]

b) y[n] = 2 y[n-1] + x[n+2]

**Q.No.5. Distinguish between causal and non-causal systems in the following:**

**i.y(t)=u(-t) ii.y(t)=u(t-π )**

**iii.y(t)= u(t)+u(t-2) iv.y(t)=u(t2)**