**Assignment no.2**

**Sub-FD BE/ELEX/SH-2013**

**Date-16/09/2013**

1) Design low pass FIR linear phase filter with 11 coefficients using hamming window for the

 Following specifications.

 Pass band frequency: 0.25 KHz

 Fs: 1 KHz

2) Design low pass FIR linear phase filter for

 |H(K)|={1,1,0,0,0,1}

3) Design a FIR filter for δp=0.01 ,δs=0.01,ωp=0.2 & ωs=0.6 using any suitable window

4) Design a Chebyshev-I bandstop digital filter with following specifications

 a)Passband :0 to 275 Hz & 2KHz to ∞

 b)Stopband=550 Hz to 1000Hz

 c) αp=1 dB

 d) αs=15dB

 Use BLT & Impulse invariance , Assume T=1 Sec.

5) Explain Gibbs phenomenon & state the reason of occurrence & state hoe it can be reduced.

6) Write Design steps of FIR filter using Kaiser Window