ISRA UNIVERSITY

Islamabad Campus

Department of Electrical Engineering
Program: B.E. (Electrical)
Semester – Spring 2016

EL-322 Digital Signal Processing

Assignment – 3   **Due Date: 24/05/2016**
Marks: 20   **Handout Date: 18/05/2016**

Question # 1:

A linear shift invariant system has a unit sample response given by:

$$h(0) = -0.01$$
$$h(1) = 0.02$$
$$h(2) = -0.10$$
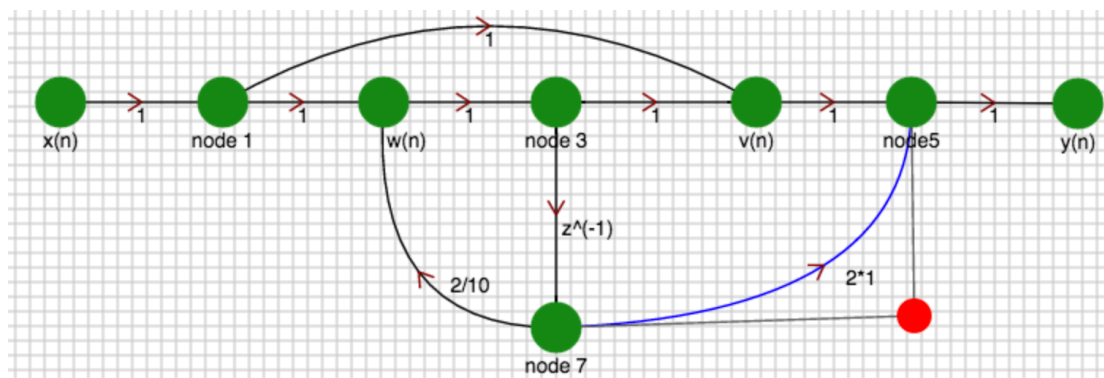$$h(3) = 0.40$$
$$h(4) = -0.10$$
$$h(5) = 0.21$$
$$h(6) = -0.01$$

Draw a signal flow graph for this system that requires the minimum number of multiplications.

Question # 2:

Consider the filter structure shown below and find the system function and the unit sample response of this system:

Good Luck