EE 432-1, Digital Control Systems, Quiz-1
Monday, October 1, 2007, Dr. Ahmad A. Masoud

write the answer on the questions paper

1- Draw the simulation diagram of the discrete system corresponding to the difference equation:

$$y_n - 0.9{\cdot}y_{n-1} + 0.5{\cdot}y_{n-2} = x_n + 0.1{\cdot}x_{n-1}$$

2- Determine the transfer function of the system,

3- use the long division approach to obtain the first three terms of the impulse response of the system

4- obtain the first three terms of impulse response using direct substitution in the difference equation.