



ISRA UNIVERSITY

Islamabad Campus

Department of Electrical Engineering

Program: B.E. (Electrical)

Semester – Spring 2016

EL-322 Digital Signal Processing

Quiz – 1

Marks: 10

Handout Date: 30/03/2016

Question # 1:

Determine whether the specified input-output relationship is linear and/or shift-invariant:

$$y[n] = 2x[n] + 3$$

Question # 2:

Find the frequency response $H(e^{j\omega})$ of the linear time-invariant system whose input and output satisfy the difference equation:

$$y[n] - \frac{3}{4}y[n-1] + \frac{1}{8}y[n-2] = 2x[n-1]$$