Examination Feedback for EEE224 – Communication Electronics
Spring Semester 2015-16

Feedback for EEE224 Session: 2015-2016

Feedback: Please write simple statements about how well students addressed the exam paper in general and each individual question in particular including common problems/mistakes and areas of concern in the boxes provided below. Increase row height if necessary.

General Comments:

Question 1:

Part a: Students either knew what stability was or didn't. If they knew they were correct and if they didn't they made something up or chose to discuss linearity.
Part b: No real problems here
Part c: Many students could not correctly carry out the convolution. Most just multiplied the two functions and forgot to integrate.
Part d: Most students could plot a graph of the functions that they had derived from part c.

Question 2:

Part a: No real problems
Part b: Some students did not use the Bessel function for part iv but other than that no significant problems
Part c: Some students did not recall what the spectrum of an FM signal was. Some students showed the spectrum of an AM signal

Question 3:

Part a: No real problems
Part b: The main issue here was in part (ii) where if the bandwidth is halved the SNR is doubled.
Part c: Some student described a TDM system rather than a FDM
Part d: Some students forgot the guard band in their calculation
Part e: Most students did not get the main point of a TDM PCM system which would result is a signal with high bandwidth but better quality

Question 4:

Part a: Most students know the conditions of oscillation and that an oscillator requires no input.
Parts b and c: Most students can identify the two types of RC oscillators. Common mistakes are made in the calculation of the frequency of oscillation.

Question 5:

Part a: Many students don't know how to use the Laplace transform pairs and the associated properties to calculate the Laplace transform and the inverse Laplace transform.
Part b: Most students don't understand the concept of VSWR. Many students don't understand impedance matching.
Part c: Most students can calculate the reflection coefficients and wave voltages correctly, but a lot of mistakes are made in the final voltage-versus-time figure.

Question_6:

Part a: No real problems.
Part b: Most students can perform the circuit analysis, but only a few students can derive the standard-form transfer function correctly.

Question_7:

Question_8: