Examination Feedback for EEE6220 – Electronic Communication Technology
Spring Semester 2015-16

Feedback for EEE6220 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 i: Generally answered well with main mistakes in using the incorrect harmonic
Part a ii: Most students answered this with no general mistakes
Part a iii: Some students chose the wrong equation or could not manipulate the equation to calculate the correct coupling coefficient
Part b: No major problems here, some students chose the incorrect shielding equation or made minor mistakes in calculating skin depth.

Question 2:

Part a: Most student either did not attempt this part of the question or showed very little understanding of impedance manipulation.
Part b i: Most students had no problem
Part b ii: Most students had no problem.
Part b iii: The main problem here was in using the equation given to arrive at an answer. Some students used mutual inductance even though the assumptions given in the equation said this could be ignored.
Part c i: Many student did not attempt part c. Main error was incorrect filter design.
Part c ii: Many students could not calculate the transfer function of the filter or incorrectly converted 40dB to a linear number.

Question 3:

Part a: Many students went wrong by explaining the procedure of using the Smith chart in transmission line analysis.
Part b: Has been answered correctly by most students.
Part c: Most common mistake is not using the correct equation for the input impedance of a quarter wavelength transformer. Another common mistake is not realizing that the powers are the same at both ends of the transmission line.
Part d: Although this has been answered correctly by most students who attempted this question, many others went wrong with the equivalent circuit of the inductor.

Question 4:

Part a: Many students have stated the individual equations for reflection coefficient and S_{11} without explaining the difference.
Part b: Has been answered correctly by most students.
Part c: Although this is exactly from the lecture notes, most students have left it blank.
Part d: Has been answered correctly by most students who attempted this question.

Question 5:

Question_6:

Question_7:

Question_8: