Examination Feedback for EEE403/6035 – High speed electronic circuit design
Autumn Semester 2011-12

Feedback for EEE403/6035 Session: 2011-2012

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:

(a) and (b) Have been answered correctly by most students.

(c) Some students couldn't solve this since they didn't realize that the 75 ohm is the input impedance that should be used in the equation. The other common mistake is not solving the input impedance equation by equating the real and imaginary parts to each other.

(d) Although this has been derived in the lectures, most students couldn't solve it with a common mistake of deriving the VSWR equation.

Question 2:

Almost all the students have solved this question with no problems in parts (a) and (c). However, few students couldn't solve part (b) correctly since they didn't calculate the attenuation percentage accurately.

Question 3:

(a) Many students made a mistake here by describing the functions of lumped components instead of their limitation at higher frequencies.

(b) And (c) have been answered correctly by most students.

(d) Most common mistake is not deriving the correct expressions for the input impedance as well as the relation between the two terminal voltages.

Question 4:

(a) Nearly all students, who solved question 4, have answered this part correctly.

(b) Few students made a mistake by listing the common characteristics of constant gain circles instead of explaining what they are and when they are used.

(c) No student has managed to answer this question which is given exactly in the lecture notes. The most common mistake is attempting to solve for the maximum amplifier gain.

(d) Most of students have answered this part correctly. Few didn't plot the constant gain circle correctly, and others made a mistake on choosing the proper reflection coefficients.