Examination Feedback for EEE309 – Digital Signal Processing
Spring Semester 2015-16

Feedback for EEE309 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:

The overall performance is satisfactory. Most of the students attempted the first, third and fourth questions and only a few included the second question in their attempt, which is mainly about z-transform and pole-zero plot.

Question 1:

The main problem is b (i). Although most of students have no problem to see that the overall response is given by $h[n]= (h_2[n]+h_3[n])*h_1[n]$, they struggled to calculate the convolution result. One easy way to calculate this convolution is through z-transform, in a similar way to Q3(a).

Question 2:

Only around 10 students attempted this question. I think the main reason is that this part is related to z-transform and the associated pole-zero plot, which are abstract and quite difficult to understand.

For those who attempted this question, the main problem is a ii) and b iii). Q2 a ii) is about two different ways to express the unit step sequence in terms of the unit sample sequence, which is typical bookwork. Q2 b iii) is about the definition of minimum phase system, which is not difficult to understand either.

Question 3:

Most of the students attempted this question and overall a very good attempt. However, the majority lost marks since they did not give the required equation for inverse DFT.

Question 4:

A good attempt for this question.

4. a: an almost perfect attempt, but some students gave the wrong expression for convolution.
4. b: again an almost perfect attempt, and only a few struggled with it.
4. c: some students forgot to give the required highpass design result; they stopped at the lowpass result.
4. d: this is the most difficult one and many lost marks due to various mistakes in the proving process.

Question 5:

Question_6:

Question_7:

Question_8: