

Examination Feedback for EEE201 – Signals and Systems  
Autumn Semester 2009-10

### **Feedback for EEE201 Session: 2009-2010**

**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:**

Most students did well in Q1 and Q2. Q3 was relatively easy but I was surprised that relatively few students attempted this question and disappointed with the answers provided. Q4 was aimed at testing your understanding of Laplace transform. Most students did well.

**Question 1:**

There are different approaches to solve this question and most of you did very well in parts (a), (b) and (d). Some of you however have misinterpreted part(c) by working out the time corresponding to 90% rather than 10% of the initial value. This could have been avoided by reading the question more carefully.

**Question 2:**

No problem with part (a). A number of students struggled to define the integration limits and could not write  $h(t-\tau)$ . You should have attempted to perform the convolution using  $y(t)=\int h(\tau)p(t-\tau)d\tau$  if you are not sure about  $h(t-\tau)$ . I have expected parts (c) and (d) to be completed successfully but was surprised that some of you were not able to sketch and label part (d). Remember to sketch and **label the diagram**.

**Question 3:**

Some students should have computed the Fourier Series of  $p(t)$  which will allow you to proof the FS for  $p(t)$ . Instead a number of students attempting this question attempted to use Fourier Transform although this is a Fourier Series. Part (c) is relatively straightforward if you have sketched and labeled correctly noting that the sampling frequency is 2 rad/s.

**Question 4:**

Part (a)ii) seems to present problems to some students. If you are unsure of how  $H(s)$  changes with  $s$ , you can work out the magnitude of  $H(s)$  for different values of  $s$  and sketch  $|H(s)|$ .