

Examination Feedback for EEE116 – Multimedia Systems  
Spring Semester 2008-09

### **Feedback for EEE116 Session:2008-2009**

**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:**

This question was a popular choice and attempted well. The most common mistake was in deriving the Huffman code by forgetting to merge symbols with the two smallest probabilities, Some students forgot the efficiency is computed with respect to the source entropy, which is the theoretical minimum. Parts d) e) and f) were generally answered well.

**Question 2:**

This was the worst performed question. In part b), many answers wrongly computed the voltage range as  $2V_{\max}$  or  $2V_{\min}$ , where it should have been  $V_{\max}-V_{\min}$ . Part d) was very poorly answered. Most students have mistaken the LPC with digitization. In part e) some students described temporal masking when the question was on frequency masking.

**Question 3:**

In general, this question was answered well. Main mistakes were in the confusion of circuit switching with packet switching and time division multiplexing with frequency division multiplexing. Some students did not read the question clearly and did not state examples for these technologies.

**Question 4:**

Parts a), b) and C) of this question were answered very well. Most students made mistakes in part d) where they lost most marks. In the data rate computation part most common mistakes were as follows,

- i) not computing the width of the video accurately by considering the aspect ratio
- ii) specification says the video is non-interlaced, yet most students divided the frame rate by 2.
- iii) Wrong computation of Chrominance resolution for 4:2:0

The compression ratio computation part should consider a 6-frame GOP, and then compute the effective GOP size after compression to find out the compression ratio. Most students forgot to consider the gop size of 6 into their computations.