Examination Feedback for EEE6008 – Reliability and Failure
Spring Semester 2005-06

Feedback for EEE6008 Session:2005-2006

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:

All but two students did well in this paper. One of the students appear to have difficulties understanding the questions as some of his answers were irrelevant. Only two students attempted question 1 which deals with reliability model. This seems to suggest that students are not comfortable with Mathematics.

Question 1:

Only 2 students attempted this question on reliability model. This seems to suggest that students are not very comfortable with reliability models.

Question 2:

Most students did well in this question to show that they understand potential reliability issues arising from fabrication. However all of them fail to notice that intrinsic defects in Si are few and rarely cause any reliability in Si ICs.

Question 3:

In general all the students attempting this questions are familiar with electrostatic discharge and methods to minimise this effect. However only one student has managed to use the Human Body Model correctly to calculate the current density discharged into the device and the duration of discharge.

Question 4:

All students attempting this question showed that they understand the operation principles of SEM. However most of them could not describe accurate how EBIC operates and failed to explained that defects in the pn junction will reduce the induced current.