

## **Feedback for EEE115 Session:2007-2008**

**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 people made a reasonable attempt at the paper. It is apparent that some people do not read the question fully. Some questions were “draw and explain”, most people drew a diagram but forgot the explanation and unfortunately valuable marks were lost in these cases. Also, Q4 involves some calculations. Some people just wrote down the answer, this is good if the answer is correct. If the answer is wrong, you cannot receive any marks for method.

### **Question 1:**

- a) Some omitted the explanation
- c) Some drew waterfall model and some omitted explanation
- dii) Some people drew a tree hierarchy diagram

### **Question 2:**

- a) Block diagram with battery missing, the UPS will not work without a battery
- b) Quite a simple calculation but students did not seem to realize that the power delivered by the UPS during a power cut is  $240V \times 13A$ , not  $12V \times 13A$
- c) Had to draw a state-diagram here, some drew a flowchart

### **Question 3:**

- c) Some students mentioned that differential equations are non-linear. Indeed, DEs can be non-linear but they can also be linear
- f) The data gives a graph which has a sigmoid shape (a big ‘s’). It could be linearised over entire range or about 0. Sigmoids usually signify saturation which is a nonlinear behaviour. Therefore, one would linearise between -1 and +1 A in this case.

### **Question 4:**

- a) Some people forgot to multiply no. of failures by repair time in their equation

### **Question 5:**

**Question 6:**

**Question 7:**

**Question 8:**