Examination Feedback for EEE115 – Systems Engineering
Spring Semester 2005-06

Feedback for EEE115 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 candidates that attempted this paper passed it.

Question 1:

Part b: To gain full marks candidates had to firstly derive a transfer function expression that represented the frequency response of the filter. Then, by abstract (often called normalization by filter designers), show how the transfer function could be manipulated to represent a generic low-pass filter with, say, a corner frequency of ω_c regardless of its implementation. Such an expression can then be used to model a low-pass filter or a car suspension system for example.

Part c.ii: The key to this section was recognizing that the controller is central to the operation of the washing machine.

Part c.iii: User guides are focused on the user and their interaction with the system. Hence everything the user must do to make the washing machine operate should be included. For example, inlet and outlet connections, control panel, detergent tray, etc.

Question 2:

Part c: Most candidates perform the calculation with ease but became confused regarding inverting and non-inverting amplifiers.

Question 3:

Part d: Some candidates placed sub-system G in the wrong place. It should have been placed between points α & β, effectively placing it in parallel with everything.

Question 4:

No major comments