

Examination Feedback for EEE224/227 – Communication Electronics  
Spring Semester 2012-13

**Feedback for EEE224/227 Session: 2012-2013**

**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:**

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**Question 1:**

General mistakes in this question were involved with integration. A lot of students did not know how to integrate by parts using the provided formula. Many students used the incorrect integral limits, which would have simplified the calculation.  
The linearity element was answered well.

**Question 2:**

Students struggled to show how the Nyquist theorem is derived, although aliasing was well discussed. Students had trouble combining the concept of PPM and time division multiplexing. Drawing a graph of the scenario would have helped students to visualize the problem better.

**Question 3:**

Students generally forgot the circuit from the notes on the FM stereo, although students who discussed other methods that might be appropriate were given credit.  
Again students forgot the equations required for the Armstrong modulator and had trouble deriving them from first principles.

**Question 4:**

Some students still don't know how to find the high-frequency and low-frequency gains of a first-order RC circuit and/or how to use them in computing the step response of a circuit. Another common problem is with the derivation of the standard-form transfer function of a first-order circuit.

**Question 5:**

Some students don't know how to analyze an op-amp circuit. Another common problem is with the Laplace transform and its region of convergence.

**Question 6:**

A common problem is with the derivation of the standard-form transfer function of a second-order circuit. Some students found it difficult to compute the impulse response and step response of a system from its transfer function.