

Feedback for EEE220 Session: 2009-2010

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:

A demanding paper with some questions that required a deep understanding of basic concepts. The main reasons for losing marks were: failure to read the questions properly; failing to explain/state assumptions in derivations; lack of detail in explanations; wrong units! Quite a few students only attempted two questions - either two electric field problems or two magnetic field problems - all these students failed the paper.

Question 1:

- a. Straight forward bookwork; main reason for losing marks was failure to sketch variation of field
- b. Very few problems with this question, some students did not know basic definition of inductance
- c. A tricky problem which required an in depth understanding of the concept of induced emf. About 10% of students received full marks for this section - see exam solutions.

Question 2:

- The least popular of the four questions.
- a. A similar question to one found in the tutorial sheet - answered well
 - b. Many students found this difficult. The trick is to realise that the radial segments do not contribute to the total field.
 - c. A tutorial type problem - some numerical errors but generally answered well

Question 3:

- a. Bookwork derivation but students lost marks for failing to explain/state assumptions
- b. Answered well - some numerical errors - for part (c) $E=0$ as inside wire
- c. Difficult question; the key was to draw a clear diagram and derive correct expression for E-field before calculating voltage

Question 4:

- a. no problems
- b. and c. Bookwork derivation but students lost marks for failing to explain/state assumptions
- d. Answered quite well - main error was failing to realise force from A and B was in same direction
- e. A tricky problem which needed a lot of understanding but no maths!