Examination Feedback for EEE336 – Digital Systems
Spring Semester 2014-15

Feedback for EEE336 Session: 2014-2015

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General Comments:

Many of the individual parts to questions were well attempted but some students could not attempt all parts of the questions that they chose to answer. You need to cover all parts of the course as an individual question may cover several topics. It was obvious that many students had a very limited depth of understanding to some of the more descriptive questions. This understanding comes from studying the material **well in advance** and seeking clarification if there is something that you do not understand.

Question 1:

Part(a) – Generally a poor attempt at describing cache memory. This was bookwork straight from your notes but it did require a good understanding in order to describe it well.
Part(b) – Generally well attempted. Marks lost for not working to 8 bits and in a few cases, using non-restoring division.
Part(c) – Extended bookwork requiring a good explanation. Again, straight from your notes but few people gained full marks.

Question 2:

Part(a, b, c, d) – Well attempted by most.
Part(c) – Many students gave an example to show that shift-and-add multiplication does not work for 2s complement numbers but did not explain why which was what the question asked for.
Part(d) – Most got a mark for stating that there are more iterations as n gets large but few realised that ultimately the clock frequency is limited by the propagation delay in the adder.

Question 3:

Part(a, b) – Most students picked up marks on this bookwork but surprisingly few got full marks on the description of a stack. Again, it's down to knowing your notes well as a bare minimum.
Part(c) – A reasonable attempt at this but no really good solutions. Remember to describe your states to pick up full marks.

Question 4:

Part(a) – A very poor attempt at this bookwork.
Part(b) – Students either did very well or very badly on this part. If you plan to tackle the Verilog question make sure that you know the basic constructs well.
Part(c) – Generally well attempted but some students missed out the fact that unlike a normal shift register, the data wraps around, hence the name.
Part(d) – Extended bookwork, few people knew this.