

## Exam Advice

- It is extremely important to consider your time management on the exam; if you can nail down your time on each problem, you will have maximized your chances of a higher score on the exam.
- Make a first pass through the test answering questions; this should take a couple hours, at least. Don't waste time scanning through the exam without answering questions, it just wastes time. Instead, read, take notes in the margins, circle or underline questions, and try to solve the problems you know on the first pass.
- You will have to practice doing a first pass before the test, and you have to follow the test advice below in order to maximize your time on each of the questions. Your first pass should nail the questions you absolutely know – but that means you have to READ the ones you don't absolutely know, which takes time – the trick is to read thoroughly and take notes in the margins on the problems you don't really know.
- Skip problems on your first pass if you have no idea what the question is asking. As a soon-to-be engineer, this will likely bug the snot out of you – don't let it rattle you. Move on and come back. Have you ever not been able to remember a word or phrase when you're talking to someone? And then twenty minutes later you suddenly remember?! This happens on tests all the time, especially with the added anxiousness of a timed national test!
- When you're lost in the problem, go to the margin and write down the type of problem, a few notes about what you're thinking the right path is, underline or circle key words and what the problem is asking for in the problem statement, and then MOVE TO THE NEXT PROBLEM! When you come back, you may have new insight...

- If you are going to skip a problem:
  - Read the answers to see if they help make the problem understandable.
  - Try to eliminate at least one answer, try for two...if you eliminate three then bubble in the last one and you're done!
  - Quickly write down a couple questions in the margin to help you when you come back.
- Write clearly and in steps, so when you don't get a good answer you can go back and check (see below).
- Circle answers in your exam booklet. Do not fill in answer sheet bubbles until you finish your first pass! At the end of the first pass, fill in your bubbles and then you will be able to easily find the problems you need to go back to by looking at the empty bubbles on the sheet.
- For each problem take note of, or quickly write down, the following:
  1. What type of problem is it? (5 seconds)
  2. What is the problem asking for? (10 seconds)
  3. Is there extraneous information? (10 seconds)
  4. What references or equations are needed? (10 seconds)
  5. Use the space on your sheet (if printed out) or scratch paper to find your solution.
  6. Circle the right answer (if printed out) or write down the correct letter (do not fill in the score sheet bubble yet).
- If you don't see your answer in the multiple choice questions, do these things, in this order:
  1. Quickly check to see you're using the correct units; recalculate if necessary.
  2. Eliminate outrageous answers, e.g., if there are two negative answers and two positive answers and the answer to the question can only be positive, cross out the two negative answers.
  3. Follow the SKIP advice above and come back.

- If there is a multiple-choice selection for “all of the above”, and you have already found two of the answers, trust that you’ve done everything correctly, choose “all of the above”, and move to the next problem. Again, the soon-to-be-engineer in you will tell you to check the final solution, but there’s a great chance you did it correctly and you’ll need the time!
- Consider using the answers from multiple-choice selections to back-calculate (or reverse engineer, as it were). This situation doesn’t usually come up, but it does happen and it might allow you to eliminate a couple choices.
- Don’t start any calculations until you have circled/underlined the actual problem statement (see below for a quick checklist for each problem on the exam).
- If you have time at the end, quickly check your circled solutions in the test booklet against the score sheet.
- Do not leave any answers blank. The exam proctors will inform the entire room at 15 minutes, at 5 minutes, and again at “pencils down”. Use the last 15 minutes to make sure you have filled in all your answer bubbles.