
CALCULATION-BASED MULTIPLE CHOICE EXAMS

Exams in Engineering, Mathematics, and the Sciences often have Multiple Choice (MC) questions that require numerical calculations. These types of problems provide a unique challenge that is quite different from regular MC questions. The following tips can be used to improve your success in doing calculation-based MC questions:

Skip Difficult Questions

Do the easy questions first. When you come to a question that you don't know how to solve, skip it and come back to it later in the exam. As you're working on the other questions, your memory will often be jogged and you will remember how to solve the harder problem.

Write Out Solution Steps

When attempting questions, be sure to write out the solution steps as if you were answering a non multiple choice question. It is much easier to go back and correct any errors in your calculations if each step in the solution is clearly laid out.

Watch Out for Common Mistakes

If the answer that you calculated is one of the MC options, select that option, but only move on if you are confident that you used the correct procedure. **Beware of the fact that some of the wrong options will reflect common mistakes**, so just because an answer that you calculated is one of the MC options, it does not mean that the answer is always correct. If unsure of your answer, put a star next to the question and revisit it at the end of the exam if you have extra time.

Check Your Calculations

If you are not able to calculate an answer that matches one of the MC options:

- Make sure the final answer you have calculated is in the correct units/form.

- Check the formula sheet, if one is provided. Make sure you have identified the correct equations that relate to the variable being solved.
- Carefully re-do the calculations to make sure you haven't made a calculation error. This process will be much easier if you initially wrote out the solution steps.

Plan Your Time

Do not spend an excessive amount of time on a multiple choice question. The amount of time allocated to a question should be proportional to the number of marks the question is worth. For example, if a 60 minute exam has 60 marks, you should aim to spend only 1 minute answering a question that is worth 1 mark.

Guess Wisely

If the exam is drawing to a close and you still haven't found an answer to a question, make an educated guess. **Never leave a multiple choice question blank.** Eliminate any choices that are of an unreasonable order of magnitude or have been expressed in the wrong units/form, and choose from the remaining options.

More Information

For further resources, see the Learning Services handouts for Multiple Choice Exams and Problem Solving Exams found at www.lib.uoguelph.ca/assistance/learning_services/handouts

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