CM 10227: Exam Prep

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Introduction

- This weeks lectures will not follow the usual pattern
- This (rather shorter) lecture consists of
  - Introduction to the Exam
  - Exam and Coursework Q&A

Introduction

- We will also hold one final session in revision week in January:
- Will be in the usual lecture room at 4pm on Tuesday 10th Jan
- Won't present new material
- But we will be availabale to answer your questions

Reminder

- Remember that the second large coursework is due tomorrow
- You should, at this stage be checking and debugging code rather than developing new functionality
- Check that your code compiles and runs on lcpu

Reminder

- I am happy to answer questions on the coursework specification at the end of this lecture
- I will not (cannot practically), however, debug code ahead of tomorrows submission
- Take debugging questions to the remaining labs

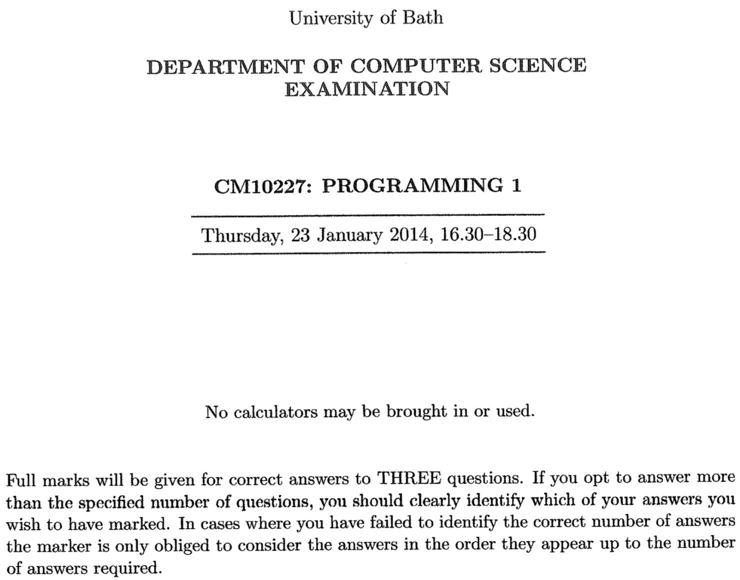
Further Help

- There are still labs today and tomorrow
- For the rest of this week, you can email programming1 as usual
- You can also try programmng1 next week but you may not get an answer very quickly

The Exam

Assessment Overview

- Course is made up of **concepts** and **application**
- Coursework builds and tests **application**
- Exam mainly tests **concepts**



University of Bath

DEPARTMENT OF COMPUTER SCIENCE
EXAMINATION

CM10227: PROGRAMMING 1

Thursday, 23 January 2014, 16.30–18.30

No calculators may be brought in or used.

Full marks will be given for correct answers to THREE questions. If you opt to answer more than the specified number of questions, you should clearly identify which of your answers you wish to have marked. In cases where you have failed to identify the correct number of answers the marker is only obliged to consider the answers in the order they appear up to the number of answers required.

Exam

- Note: Answer 3 questions from 5
- If you attempt more questions, **please indicate which should be marked**
- In case of doubt, we will simply mark the first 3

Anatomy of our Exam Questions

- Each question will have multiple (approx 4) parts
- Answer all parts of the 3 questions that you chose

Anatomy of our Exam Questions

- One part worth approx. 10 marks
- And other parts worth approx. 10 marks between them e.g.

```
Question 1
1.   .....  [10 marks]
2.   .....  [4 marks]
3.   .....  [4 marks]
4.   .....  [2 marks]
```

Anatomy of our Exam Questions

- The largest part (i.e. the part worth approx. 10 marks) will ask you to work with code
  - e.g. Design the a code structure
  - e.g. Explain the workings/output of given code
  - e.g. Debug given code

```
Question 1
1.  Work with code [10 marks]
2.  ..... [4 marks]
3.  ..... [4 marks]
4.  ..... [2 marks]
```

Anatomy of our Exam Questions

- The other parts of each question may ask you to define a term, compare two (or more terms), give examples and/or explain the importance of those terms.

Question 1

1. Write a recursive and an iterative version of a function that prints out all even numbers between 0 and 5000. The function/method should be able to operate with positive and negative numbers. You are not allowed to use the * operator [10 marks]
2. Define a [4 marks]
3. Explain the difference between b and c [4 marks]
4. List the key advatages of d and e [2 marks]

Marks

- The exam is marked out of 60 (3*20)
- We then convert your final mark to a percentage,
- Combine it with your coursework marks (50/50)
- And submit it to the department unit and program boards
- All marks are provisional until those boards have taken place

Tips

- During the exam, it will help to
  - Read through all five questions before answering
  - Use all the time available i.e. think carefully before leaving early
    - check your answers
  - Submit both notes and final answers
  - Clearly mark the difference between your final answers, notes and rejected answers (cross through notes/rejected answers before submitting)

Tips

- It will also help to
  - Prioritise the “work with code” parts when chosing which questions to answer
  - Look for clues in the marks (3 marks probably means that we expect to see 3 parts to youranswer)
  - e.g. The advantages of a are x, y and z [3 marks]

Do’s and Dont’s

- Don’t Panic!
- Do spend time revising the course material.
- Make sure that you
  - understand (and can explain) key concepts
  - have practised for the coding exercises in the exam

Do's and Dont's

- Don't try to second guess the contents of the exam on the basis of this (or any other) individual lecture.
- There are no guarentees that the material covered this week (including revision slides) will be either in or out of the exam.
- You will need to revise the lecture slides from the first week just as carefully as the ones from this week (and all those in between).

Preparation

- Re-read both C and Java lecture notes
- Remember that we will not ask questions about material only covered in the Pointers and Memory lecture (Thursday, Week 4)
- Remember also that we may ask questions about any other subject covered in the course (C, Java, General programming)

Preparation

- Review the definitions and explanations embedded within each lecture
- Spend time on (but don't limit your efforts to) the definitions of terms dotted throughout the lectures.
- e.g. a variable is a name that refers to a value

- Note that definitions may appear alone on a slide
- ... or be included in a longer discussion / piece of code

Preparation

- Go through those slides/glossaries, making sure that you can provide definitions of as many keywords as possible (and examples of the concepts described by those keywords) e.g.
  - Q: Explain the importance of try/catch statements:
  - A: They allow software clients to attempt reovery from thrown exceptions at runtime.

  - Q: Define garbage collection:
  - A: Garbage collection is a form of automatic memory management.
  - A (contd): The garbage collector attempts to reclaim garbage, or memory occupied by objects that are no longer in use by the program.

Preparation

- Work through at least one previous CM10227 exam paper item `http://www.bath.ac.uk/library/exampapers/index.php`
- Note: We do not provide answers to exam questions

Preparation

- You can (and probably should) compile and run some of the "Working with code" parts of old exam questions
  - e.g. parts of questions that ask you to explain code functionality
  - e.g. parts of questions that ask you to debug code
- N.B. Ifyou do compile and run exam code, it may be helpful to add print statements which provide insight into the state of our code at key points in it's execution

Any Questions?

Enjoy The Holiday (Once Your Coursework is In)!