CSC 2205 C# Programming

Exam and Review

Make sure you know the correct
DATE and TIME

Exam

- 2 Hour examination + 10 minutes reading time
- Closed book
  - No written materials, calculators, or aids allowed
- Use **INK** Pen to write your answers
  - Cannot use pencil except for drawing or sketching.
- Please write **legibly**!!
  - No *cursive* writing
  - No tiny writing

- Start a new page of exam script book for each question.

Exam

▸ The paper will have two sections - Section A and Section B.
▸ You are required to
  ◦ Explain OOP concepts
  ◦ Write the program codes

▸ When answer,
  ◦ Always refer to the Concept
  ◦ Use code example if possible for each answer, which can help you to clarify your meaning

Note: During examination there will be no opportunity for clarification, you will need to interpret the questions on your own, especially the coding questions in which the answers can be varied.

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Exam

▸ C# OOP concept questions

  ◦ Class, Object and Constructor

  ◦ Access Controllers (private vs public vs protected etc.)

    · Encapsulation – information / implementation hiding

  ◦ Instance variable and Property

  ◦ Methods - overloading, static, override etc.

  ◦ Inheritance (base vs derived class, abstract class vs concrete class, abstract class vs interfaces, etc.) - reusability

  ◦ Polymorphism (class referencing to objects, type casting etc.)

  ◦ Generic Methods (with overloading) and Generic Class

Note: Use code examples to explain your answers!

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Exam Section A:

- 50% of total final exam marks (100%)

- One question only, Q1, but it's **compulsory** question

- **Purely CODING**

- Question involves C# Programming Object-Oriented concepts of class/object, inheritance and polymorphism (includes Abstract class).

  ◦ Note: this question is similar to the Lab Exercises.

Exam Section B:

- 3 questions (Q2, Q3, Q4), you only answer **TWO** of them.
- Each question is worth 25 marks for a total of 50 marks in this Section.

- Q2 consists of three (3) sub-questions,
  a) Explain a general concept of Object-Oriented Programming
  b) Explain a class-specific concept in Object-Oriented Programming
  c) Explain different ways of implementing methods
    - To write codes of methods as example to explain your answer.

Exam Section B:

- Q3 consists of four (4) sub-questions
  a) Explain concept of inheritance
  b) Explain concept of abstraction using different base classes (i.e. abstract class and interface class)
  c) Explain different ways of implementing methods in inheritance (i.e. abstract non-concrete and concrete method implementation)
  d) Write codes to implement abstraction classes

- Q4 consists of two (2) sub-questions
  a) Create "Generic" class and its test codes
  b) Explain the concept of implementing "Generic" methods
     - To write generic codes of methods as example to explain your answer

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Use Reading Time To Plan Your Approach

- Read through the entire paper

  ◦ Be clear on what is being asked of you

- Decide how you will tackle the paper

  ◦ Section A, start with base class first, then work all the way down

  ◦ For Section B, decide which TWO questions you want to do

- Calm down and focus on what you know while waiting to write.

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