

Central Peel Secondary School
Grade 12 Computer and Information Science Final Exam OUTLINE

Mr. N. Nolfi

Victim: _____

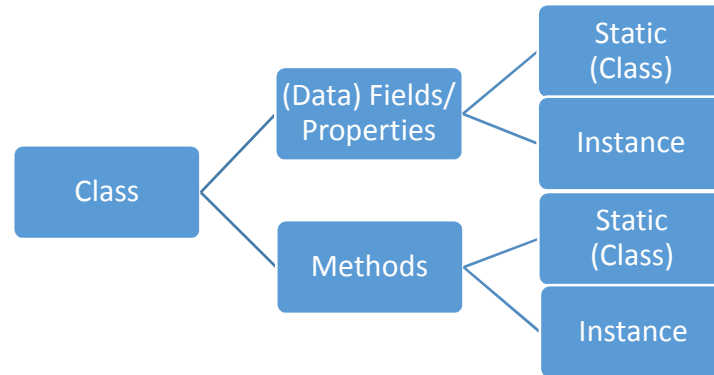
KU	APP	TIPS	COM
/20	/20	/20	/15

Number of Pages:

Time: 2 hours

Section One: Multiple Choice Questions dealing with Object-Oriented Programming

The following diagram shows the *basic* structure of a class in object-oriented programming. After studying the diagram, answer the *multiple choice questions* found below.



For questions 1 to 10, select the *best* answer. Write the letter of your choice in the blank space. (10 KU)

Section Two: Written Responses

11. Given the following C# variable declarations, complete the following table: (10 KU, 5 COM)

```

int a = 0, b = 0, c = 0;
long p = 0, q = 0;
double x = 0, y = 0, z = 0;
bool d = false;
string s = "good luck", t = "in university!";
  
```

C# Statement	Is the statement allowed? If so, explain why. Otherwise, explain why not and suggest corrections.
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12. MEMORY MAP QUESTION: Given the *values* of the *variables* shown below, including the values of the elements of the array “a,” describe the *problem solved* by each of the given C# *program snippets*. Note that variables have intentionally been given cryptic names. (In case you have forgotten how the “Substring” method works, a description of it is given at the bottom of this page.) (10 APP, 5 TIPS, 5 COM)

a[0]	a[1]	a[2]	a[3]	a[4]	a[5]	a[6]	a[7]
25	200	500	1	1000	-10	5	100

13. The following is a *partial description* of the *members* of a class called “Line.”

“Line” Members (Partial List)			
Fields (private) and Properties (public)		Constructors (public)	Methods (public, instance)
p1_ P1	A Point object that stores the co-ordinates of one endpoint of the line (default value = (0, 0))	Line() This version of the constructor sets all fields to their default values. Line(Point, Point, Color, double) This version of the constructor sets the values of all four fields according to the values passed to the parameters.	double length() This method returns the <i>length</i> of the line.
p2_ P2	A Point object that stores the co-ordinates of the other endpoint of the line (default value = (0, 0))		double slope() This method returns the <i>slope</i> of the line.
colour_ Colour	A Color object that stores the colour of the line (default value = Color.Black)		Point midpoint() This method returns the <i>midpoint</i> of the line.
width_ Width	A double value that stores the width of the line (default value = 0.5)		double yIntercept() This method returns the <i>y-intercept</i> of the line.

Complete the *class definition* below using the description of the class members given in the above table.
(10 APP, 5 TIPS, 5 COM)

14. Write a method that involves both strings and arrays. The nature of the method is disclosed on the final exam. (10 TIPS, 5 COM)