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## CS201 Introduction to Programming

Mid Term Examination - November 2004

Time Allowed: 90 Minutes

Please read the following instructions carefully before attempting any of the questions:

1. Attempt all questions. Marks are written adjacent to each question.
2. Do not ask any questions about the contents of this examination from anyone.
  - a. If you think that there is something wrong with any of the questions, attempt it to the best of your understanding.
  - b. If you believe that some essential piece of information is missing, make an appropriate assumption and use it to solve the problem.
  - c. Write all steps, missing steps may lead to deduction of marks.
  - d. All coding questions should be answered using the **C ++** syntax.

You are allowed to use the Dev-C++ compiler to write and test your code. If you do so please remember to copy and paste your code into the examination solution area. **(Do NOT share your code; your colleague could get higher marks than you!!)**

**\*\*WARNING: Please note that Virtual University takes serious note of unfair means. Anyone found involved in cheating will get an `F` grade in this course.**

Total Marks: 100  
Questions: 11

Total

Question No. 1

Marks : 2

If a program is producing incorrect results on execution, it means there is a:

- 1 Syntax error
- 2 Logical error
- 3 Problem with computer
- 4 Compiler error
- 5 Linker error

**Question No. 2****Marks : 8**

Write a program that asks the user to enter two numbers, obtains the two numbers from the user, and prints the sum, product, difference, quotient and modulus of the two numbers.

**Question No. 3****Marks : 2**

In a structure we have

- 1 Variables of one type of data only
- 2 Only integers
- 3 native data types and can not have pointers
- 4 Variables of different data types
- 5 Only pointers

**Question No. 4****Marks : 2**

A computer program:

- 1 writes a document in word processor
- 2 is a plan for a picnic
- 3 is a precise sequence of steps to solve a particular problem
- 4 is written in C language only
- 5 always appears on the screen

**Question No. 5****Marks : 2**

Which one is the correct declaration for a pointer myptr to an integer?

- 1 int pointer myptr;
- 2 int myptr;
- 3 \*int myptr;
- 4 int \* myptr;
- 5 int\* yourptr, myptr;

**Question No. 6****Marks : 6**

What is a pointer? What is call by value and call by reference? Briefly explain with examples.

**Question No. 7****Marks : 2**

fstream, ifstream and ofstream open a file with:

- 1 open ()
- 2 read ()
- 3 get ()
- 4 seekg ()

5 seekp ()

**Question No. 8**

**Marks : 6**

Write a function that shows max of 3 numbers entered by user?

**Question No. 9**

**Marks : 2**

The body of *for* loop

- 1 Executes at least once
- 2 Executes zero or more times
- 3 Can not be executed more than 100 times
- 4 Consists one and only one statement
- 5 Can not execute infinitely

**Question No. 10**

**Marks : 14**

The Super Cheap Computer Company sells its product, the Super-Cheap-PC, for Rs.490.00. In addition, they sell disk drives for Rs.200.00, printers for Rs.75.00 and software packages for Rs.50.00 each. If the customer's total bill would be above **Rs.850.00 then the customer gets a 15% discount**. Write a program that prompts the salesperson to enter quantity of each item the customer wants to purchase and then outputs a bill. The complete interactive I/O should appear as below:

Please enter the following info:

Number of PCs:  
Number of Disk Drives:  
Number of Printers:  
Number of Software Packages:

The Super Cheap Computer Company

Item	Quantity	Price	Cost
PC	1	490.00	490.00
Disk Drive	2	200.00	400.00
Printer	1	75.00	75.00
Software	4	50.00	200.00
Total (15% discount if above 850)			990.25

Also write the bill details (cost of each item and total bill) in a text file called "BillDetail.txt".

**Question No. 11**

**Marks : 4**

Write a function which displays first 100 ints, starting from 1, using for loop?