	FINALTERM EXAMINATION SPRING 2006 CS201 - INTRODUCTION TO PROGRAMMING (Session - 1)	Marks: 50 Time: 120min

StudentID/LoginID: _____

Student Name: _____

Center Name/Code: _____

Exam Date: Wednesday, August 23, 2006

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.**

For Teacher's use only											
Question	1	2	3	4	5	6	7	8	9		Total

Marks											

Question No: 1 (Marks: 2) - Please choose one

A **for** loop usually consist of _____ expressions.

- 1
- 3
- 2
- 4

Question No: 2 (Marks: 2) - Please choose one

A preprocessor directive is identified by _____ symbol

- #
- {
- (
- ~

Question No: 3 (Marks: 2) - Please choose one

Which of the following operators can not be overloaded?

- new
- delete
- +=
- sizeof

Question No: 4 (Marks: 2) - Please choose one

Analyze the following code

```
class myclass
 {
  private:
      float x,y;
  public:
       void myclass(float a, float b)
        {
          x=a;
          y=b;
        }
       void diplay()
        {
          cout<<endl<<x<<endl<<y;
         }
 };
```

What is wrong with the above code?

- The member functions should be private
- constructor must not have a return type
- The constructor should have no body
- There is no error in the given code

Question No: 5 (Marks: 6)

Analyze the following code and list all the errors and line numbers in the given code.

```
int i=2;
for(i<=100;i++)
 {
   if(i%2==0)
    {
      cout<<i;
      cout<<" is even /n';
     }
  }
```

Question No: 6 (Marks: 7)

Declare a class **student** having the following data members and member functions in the

class.
stdno(integer)
stdname(character array of size 20)
phone(long integer)

getdata() function that will read data into members data**.**
Display() function that will display the data on the screen**.**

Question No: 7 (Marks: 6)

a. Write the statement that will create an array of 10 objects of the class **student** and place the base address of the array in a pointer **ptr** of the class **student** given in Question No. **6**.

b. Write the code of the parameterized constructor for the class **student** given in Question No. **6**.

Question No: 8 (Marks: 15)

Write a program that will create a class **distance.** The class **distance** consist of two data members **feet** and **inches**, both of types float. The class distance consist of two member functions, **getdata()** and **show()**. The function **getdata()** is used to read data from the user through keyboard into **feet** and **inches**. The **show()** function is used to display the values of **feet** and **inches** on the screen.

The program will create two objects **dest1** and **dest2** of the class **distance**. The program will read data into **dest1** and **dest2** using **getdata().** The program will create another object **dest3** of the class **distance** by overloading the minus "-"operator trough expression **dest3=dest1-dest2**. The program will then display **dist3** on the screen using **show()** function. The program also takes care of the fact that distance can not be negative. If **dest2** is larger then **dest1** then **dest3** should not be created and program should display the message **"Distance can not be negative".**

Question No: 9 (Marks: 8)

What are the benefits of the templates?