

Kathmandu University

COMP 116

Internal - II, August 2024

FM: 15

Time: 1 hour

SET- A

PM: 6

Answer all the questions:

1. Write a program to create a class that stores information about the height of a place in metres and centimetres. Initialise the data members using appropriate parameterized constructors.

Create three objects: **MtEverest**, **BaseCamp**, and **HeightfromBaseCamp**.

- a. **MtEverest** stores the height of Mt. Everest in metres and centimetres.
- b. **BaseCamp** stores the height of the base camp of Mt. Everest in metres and centimetres.
- c. **HeightfromBaseCamp** is an object after subtracting **BaseCamp** from **MtEverest**.

Write an appropriate operator overloading function to calculate the height of Mt. Everest from Base Camp using a friend function. [4]

2. Write a program to demonstrate that the execution of a destructor is in reverse order of the execution of constructors. Can destructors be overloaded? [3+1].
3. Explain various types of inheritance supported in C++. [4]
4. What do you mean by function overriding? Write a program that illustrates the concept of function overriding in C++. [1+2]

operator overloading