



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)  
उत्तराखण्ड मुक्त विश्वविद्यालय, हल्द्वानी (नैनीताल)

**MCA-11/MCA-16 2<sup>nd</sup> YEAR 3<sup>rd</sup> SEMESTER ASSIGNMENT**

*Last Date of Submission: 15 Dec, 2016*

**Course Title: Object-Oriented Programming through C++      Course Code: MCA-10**

**Year: 2016-17**

**Maximum Marks: 30/40 Marks**

**Section 'A'**

Section 'A' contains 08 short answer type questions of 4/5 marks each. Learners are required to answer 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

1. What is OOP? What are the difference between POP and OOP?
2. What do you mean by dynamic binding? How it is useful in OOP?
3. Discuss on various types of storage class.
4. What are nested classes?
5. What is the difference between Static binding and Run time binding?
6. Neatly explain constructor and destructor with suitable examples.
7. Define function overloading.
8. List the characteristics of a friend function.

**Section 'B'**

Section 'B' contains 04 long answer-type questions of 7/10 marks each. Learners are required to answer 02 questions only.

1. Differentiate between class and structure. With an example explain the syntax for defining a class.
2. Explain the exception handling procedure with suitable example.
3. Answer the following:
  - a. Differentiate between compile time polymorphism and run time polymorphism.
  - b. What is a virtual base class? When do we make it?
4. What is a constructor? Explain types of constructor with example