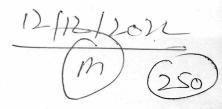
Dr. Reefa Marya





## National Institute of Technology, Hamirpur(H.P.)

End-Semester Theory Examination – November-2022 Title of the Course: <Object Oriented Programming > Class: B.Tech. (Mathematics and Computing)

Course Code: CS-211 Duration: 03:00 Hours Semester: 3 Max. Marks: 50

## **Instructions:**

> All Questions are compulsory.

Each question carries <u>05</u> Marks.

- 1. Explain briefly the characteristics of OOPs language and also mention advantages of OOPs approach over functional/procedural programming.
- 2. Differentiate between the following terms with the suitable examples:
  - I. Abstraction and Encapsulation
  - II. Function Overloading and Function Overriding
- 3. What is mean by destructor? State the rules for writing destructor function.
- 4. Write a program to declare a class 'student' having data members as 'stud\_name' and 'roll\_no'. Accept and display this data for 5 students.
- 5. Use the concept of function overloading; write a program in c++ to find the maximum of three integer's numbers.
- 6. Write a program to add two complex numbers using object as arguments.
- 7. What is multilevel inheritance? Draw the diagram to show multilevel inheritance. Explain it with suitable example.
- 8. Write a program to declare a class 'book' containing data members as 'title', 'author-name', 'publication', 'price'. Accept and display the information for one object using pointer to that object.
- 9. Write a C++ program involving reading and writing of class objects in a file.
- 10. Write down a detailed C++ program to demonstrate the use of try, catch, throw and nested try.

\*\*\*\*\*\*\*\*\*ALL THE BEST\*\*\*\*\*