JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- May-2018

B.Tech IVth Semester

COURSE CODE: 10B11CI311

COURSE NAME: Object Oriented Programming

COURSE CREDITS: 4

MAX. MARKS: 35

MAX. TIME: Two Hours

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.

Q1. Write briefly: **[5*2 = 10 marks]**

a) What is Operator Overloading? Can we overload destructor in C++? Why or why not.

b) What is base and derived class? Give one example

c) Write down the syntax to create a class and object. Give one example

d) What do you mean by input & output stream? How the end of file can be detected?

e) How are opening and closing of files handled in C++?

Q2. Define a class complex with real and imaginary as two data member, add necessary constructors and member function to initialize and display data of class. Class should overload the + operator to add two complex objects and return the results. Invoke the statements like C3=C1+C2 in main (). **[5 marks]**

Q3. a) Write a C++ program to write and read values using variables in/from file. **[3 marks]**

b) Write short notes on: seekp() , tellp() , seekg() , tellg(). **[2 marks]**

Q4. a) What is a friend function and its need? Explain friend function with the help of an example. **[3 marks]**

b) Describe the syntax of the single and multi-level inheritance in C++ with example. **[2 marks]**

Q5. a) What is a function template and a class template? Give one example **[3 marks]**

b) Give the description of following stream mode flags: **[2 marks]**

i) std::ios::app   ii) std::ios::ate   iii) std::ios::nocreate   iv) std::ios::binary

Q6. a) What is the difference between pass by value and pass by reference? Give example

[3 marks]

b) What are visibility modes in C++?

[2 marks]