JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST - 2 EXAMINATIONS - 2022

B.Tech-III Semester (ECM)

COURSE CODE (CREDITS): 20B11EM311(3)   MAX. MARKS: 25

COURSE NAME: Object Oriented Programming Concepts

COURSE INSTRUCTORS: Dr. Nafis U Khan   MAX. TIME: 1 Hour and 30 Minutes

Note: All questions are compulsory. Marks are indicated against each question in square brackets.

Q1. Explain the concept of declaring a class as a friend of another class with suitable example.

CO2 [3]

Q2. What is meant by code reusability and extensibility in object oriented programming? Explain how do you achieve code reusability and extensibility in C++?   CO2 [3]

Q3. Explain different forms of inheritance in object oriented programming. Illustrate each type with an example.   CO3 [5]

Q4. Write a C++ program to display names, roll numbers and grades obtained by 3 students in the examination of 3 different subjects. Use the concept of inheritance and display the results of the 3 students.   CO3 [5]

Q5. What is operator overloading? Write a C++ program illustrating overloading any binary operator?   CO3 [3]

Q6. Write a program to find the area of rectangle, triangle and sphere by using the concept of function overloading?   CO3 [3]

Q7. What are virtual functions? Describe the rules for declaring virtual functions?   CO3 [3]