JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

MID TERM EXAMINATION- June-2018

B.Tech. Summer Semester

COURSE CODE: 10B11CI614   MAX. MARKS: 50

COURSE NAME: Object Oriented Systems and Programming

COURSE CREDITS: 4   MAX. TIME: 2 Hrs

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

Que.1: *[5 Marks]* Differentiate early binding and late binding. Give a C++ program to explain the same.

Que.2: *[5 Marks]* Show an example to represent the dynamically allocation and de-allocation of memory for a 2D array by new and delete operators.

Que.3. *[8 Marks]* Write a C++ program that uses overloaded constructors and dynamically allocates memory to a string. Demonstrate the use of copy constructor.

Que.4: *[5 Marks]* Provide an example of Accessing of public members outside the class, by an ordinary function (non-member function) in C++.

Que.5: *[5 Marks]* Explain Friend function. Write a C++ program that shows that using friend function is violating the concept of data hiding.

Que.6: *[5 Marks]* Explain various types of constructors. Write a C++ program to illustrate the different types of constructors.

Que.7: *[5 Marks]* Write a C++ program to illustrate the public and private inheritance. Also draw the pictorial representation of member accessibility in both the cases.

Que.8: *[5 Marks]* Write down a C++ program that illustrates the use of constructors in the multilevel inheritance. Also explain the same in detail.

Que.9: *[5 Marks]* Write down the differences between constructors and other member functions. Also write down a C++ program that illustrates the use of constructors in the single inheritance.

Que.10: *[5 Marks]* Explain the following terms-

    1. Pure virtual function

    2. Static object

    3. Pass-by-pointer

    4. Friend Function

    5. Scope resolution operator