

Dr Hemraj

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -3 EXAMINATION- 2021

B.Tech-III Semester

COURSE CODE: 18B11CI311

MAX. MARKS: 35

COURSE NAME: Object Oriented systems and Programming

COURSE CREDITS: 4

MAX. TIME: 2 Hours

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

**Que.1:** Answer the following questions-

(a) [03 Marks] Write a Java program that illustrates the use of final, super, and this keywords in multilevel inheritance.

(b) [03 Marks] What do you understand by exception handling in Java? Write a program containing a possible exception to throw and catch exceptions of int and double types. In addition, there should be a block to handle all uncaught exceptions.

**Que.2:** Answer the following questions-

(a) [03 Marks] Write the difference between abstract class and interface?

(b) [03 Marks] How to convert a primitive type to wrapper class? How to convert a wrapper object to primitive data type?

**Que.3:** [04 Marks] Define a template class Queue in C++. The class should include the following methods:

- Insert data
- Display data
- Delete data

In the main() method test this class template for integer and float data types.

**Que.4:** Answer the following questions-

(a) [03 Marks] Explain user defined package with a JAVA programming example.

(b) [02 Marks] What is output of the program:

```
class ABC {  
    public static void main(String[] args)  
    {  
        Scanner myObj = new Scanner(System.in);  
        String userName;  
        System.out.println("Enter You Name of the university");  
        userName = myObj.nextLine();  
        System.out.println("Java Package : " + userName);  
    }  
}
```

Que.5: [2x7=14 Marks] Answer the following questions-

- (a) What are the two ways of implementing thread in Java?
- (b) What are the wait() and sleep() methods?
- (c) Can destructors be made virtual? Explain with reason.
- (d) What is the synchronization process? Why use it?
- (e) What is Thread Scheduler and Time Slicing?
- (f) Explain the terms Instantiation and Object Slicing.
- (g) What will happen if we don't override the thread class run() method?