Reg No.:_____   Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

SIXTH SEMESTER B.TECH DEGREE EXAMINATION(R&S), MAY 2019

Course Code: EC312

Course Name:Object Oriented Programming

Max. Marks: 100   Duration: 3 Hours

Answer any two full questions, each carries 15 marks   Marks

1 a) Discuss the features and advantages of Object Oriented Programming.   (7)

   b) Illustrate with a real life example how multi-level inheritance is implemented in C++ programs.   (8)

2 a) Identify the error in the following C++ program segment. Give explanation. Give any suggestion to rectify the error.   (7)

```
#include <iostream.h>

class room
{
intwidth,length;
void setvalue(int w,  l)
{
width=w; length=l}
};
void main()
{
room classroom;
classroom.setvalue(12,13);
….
}
```

   b) What is an object in a C++ program?   (4)

   c) What is the need of an abstract base class? Give example.   (4)

3 a) Explain the use of constructors and destructors in a program. Write example to show different constructors used in same class definition.   (7)

   b) Write a program to show how to overload '+' operator   (8)

       i)   without friend function

       ii)   with friend function

PART B
Answer any two full questions, each carries 15 marks

4 a) How is polymorphism achieved in C++ at   (7)

       i)   run time

       ii)   compile time ?

b) Explain different forms of inheritance in Java program. Write a program to   (8)
   illustrate single inheritance in Java.

5 a) When do we make a virtual function pure? Give example.   (7)

   b) Write a Java program to display following on the screen   (8)
      1
      2 2
      3 3 3
      4 4 4 4
      ….
      (Upto n lines)

6 a) How can you create pointers to objects in C++? Explain how pointers can be used   (7)

      to access members of a class?

   b) Give the layers of interaction of a Java program and explain how Java achieve   (8)
      architecture neutrality?

PART C
Answer any two full questions, each carries 20 marks

7 a) Explain the layered architecture of Android OS.   (10)

   b) What are broadcast receivers and content providers? How are they implemented   (10)

      in an android program?

8 a) Explain any five features of Android OS.   (10)

   b) What is an activity in Android? Explain activity life cycle diagram.   (10)

9 a) Give the steps to develop a simple android application program.   (12)

   b) What is the use of AndroidManifest.xml file in android?   (8)

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