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 illustrate single inheritance in Java.   (8)

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 to access members of a class?   (7)

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

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 in an android program?   (10)

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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