Reg No.:_____ Name:_____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY
Sixth Semester B.Tech Degree Regular and Supplementary Examination July 2021

Course Code: EC312
Course Name: OBJECT ORIENTED PROGRAMMING

Max. Marks: 100 Duration: 3 Hours

PART A
Answer any two full questions, each carries 15 marks Marks

1 a) Define a class to represent the mark obtained by a student. Include the following members: (8)

Data members

(a) Name of the student

(b) Roll Number

(c) Obtained mark

Member functions

(a) To assign name and roll no.

(b) To enter obtained mark

(c) To print pass/fail status(assume pass mark=45)

Write a main program to test the class.

b) Write a C++ program to find the largest of three numbers using nested if-else statement. (7)

2 a) Explain different types of constructors. Write an example program to illustrate the use of multiple constructors in a class. (8)

b) Explain inheritance and give the different types of inheritance in C++. Also explain public, private and protected access controls. (7)

3 a) Write a C++ program to find the sum of two complex numbers using '+' operator overloading, the class include real and imaginary parts of a complex number. Also explain the changes in the operator overloading if the operator function is a friend function. (10)

b) Explain the virtual base class with an example (5)

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

4 a) Explain '**this**' pointer with an example. What is the application of '**this**' pointer? (8)

b) What will be the output of the following program? Give proper explanation. (7)

```cpp
#include <iostream>
using namespace std;
class p
{
public:
    virtual void print( )
    {
        cout<< " it is base class \n";
    }
};
class q: public p
{
public:
void print( )
    {
        cout<< " It is Derived class \n";
    }
};
int main(void)
{
    p *b =new q;
    b->print( );
    return 0;
}
```

5 a) How to create pointers for objects in C++? Explain how pointers can be used to access members of a class? (7)

b) What is a thread in Java? How multithreading implemented in a program? Give a programming example to demonstrate the syntax. (8)

6 a) Differentiate between class and interface. How interfacing is used to implement multiple inheritance in Java? Give a programing example. (8)

b) Write a Java program to print factorial of a given number. (7)

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

7	a)	Explain Android activity life cycle with a neat diagram.	(10)
	b)	Differentiate between Explicit intents and Implicit intents. Also explain about the use of intent filter.	(10)
8	a)	Explain how the broadcast receivers and content providers are implemented in an android program.	(12)
	b)	What is the significance of SQLite programming in Android applications?	(8)
9	a)	Explain the use of colors.xml, strings.xml and styles.xml files in Android application.	(9)
	b)	Write short note on Android Virtual device.	(6)
	c)	What is the use of Mipmap and Drawable folders in android?	(5)

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