QP CODE: S510AN06 **Time: 3 Hours**

Max Marks: **80** (Q1: 25 marks, Q2: 35 marks, Record: 10 marks, Viva: 10 Marks)

FIFTH SEMESTER BCA PROGRAMME (CBCS)

PRACTICAL EXAMINATION NOVEMBER 2023

Software Lab V

1. Write an applet program to display a traffic light.

2. Create a package named Shapes and define abstract class Shape inside it. The Shape class should have an abstract method getArea(). Define two subclasses Rectangle and Circle that extend the Shape class and implement the getArea() method. Create a class FindArea in a different package and use the Rectangle and Circle classes to find the areas of a rectangle and a circle.

QP CODE: S510AN07 **Time: 3 Hours**

Max Marks: **80** (Q1: 25 marks, Q2: 35 marks, Record: 10 marks, Viva: 10 Marks)

FIFTH SEMESTER BCA PROGRAMME (CBCS)

PRACTICAL EXAMINATION NOVEMBER 2023

Software Lab V

1. Write a swing program to accept a value in a textbox then find the area of a circle and display the result in the second textbox.

2. Write a Java program that implements a multi-thread application that has three threads. The first thread generates a multiplication table of 2. The second thread generates the multiplication table of 5. The third thread gives the multiplication table of 7. Display the output interchangeably with proper delay.

QP CODE: S510AN08 **Time: 3 Hours**

Max Marks: **80** (Q1: 25 marks, Q2: 35 marks, Record: 10 marks, Viva: 10 Marks)

FIFTH SEMESTER BCA PROGRAMME (CBCS)

PRACTICAL EXAMINATION NOVEMBER 2023

Software Lab V

1. Write a program using Swing to accept values in two textboxes and display the results of mathematical operations in the third text box. Use four buttons add, subtract, multiply, and divide.

2. Write a Java Program to calculate the Result. The result should consist of name, seatno, date, center number, and marks of the semester three exam. Create a User-Defined Exception class **MarksOutOfBoundsException**, If Entered marks of any subject are greater than 100 or less than 0, then the program should create a user-defined Exception of type **MarksOutOfBoundsException** and must have a provision to handle it.

QP CODE: S510AN09 **Time: 3 Hours**

Max Marks: **80** (Q1: 25 marks, Q2: 35 marks, Record: 10 marks, Viva: 10 Marks)

FIFTH SEMESTER BCA PROGRAMME (CBCS)

PRACTICAL EXAMINATION NOVEMBER 2023

Software Lab V

1. Write an applet program to draw a human face.

2. Create a class called Matrix which contains a 2d integer array, m & n (order of matrix) as data members. Include the following member functions
    a. To read the matrix,
    b. To display the matrix,
    c. Overload a method product () to find the product of two matrices and multiply each element of a matrix with a constant value

QP CODE: S510AN10 **Time: 3 Hours**

Max Marks: **80** (Q1: 25 marks, Q2: 35 marks, Record: 10 marks, Viva: 10 Marks)

FIFTH SEMESTER BCA PROGRAMME (CBCS)

PRACTICAL EXAMINATION NOVEMBER 2023

Software Lab V

1. Write a swing program to interchange the values of two textboxes.

2. Write a Java program that creates a class named '**Employee**' having the following members: Name, Age, Phone number, Address, and Salary. It also has a method named '**printSalary**( )' which prints the salary of the Employee. Two classes '**Officer**' and '**Manager**' inherit the '**Employee**' class. The '**Officer**' and '**Manager**' classes have data members 'specialization' and 'department' respectively. Now, assign name, age, phone number, address, and salary to an officer and a manager by making an object of both of these classes and print the same.