

**JYOTI NIVAS COLLEGE AUTONOMOUS  
SYLLABUS FOR 2018 BATCH AND THEREAFTER**

**Programme: B.C.A**

**Semester: III**

**OOPS - LAB**

**Course Code: 18BCAIII1**

**No. of Hours: 60**

**COURSE OBJECTIVES:**

- To understand the importance of Classes & objects along with constructors.
- •Discuss the principles of inheritance, interface and packages and demonstrate through problem analysis assignments how they relate to the design of methods, abstract classes and interfaces and packages.
- •To understand importance of Multi-threading & different exception handling mechanisms and to learn experience of designing, implementing, testing, and debugging graphical user interfaces in Java using applet and AWT that respond to different user events

**LEARNING OUTCOMES:**

- Identify classes, objects, members of a class and the relationships among them needed for a finding the solution to specific problem
- •Demonstrates how to achieve reusability using inheritance, interfaces and packages and describes faster application development can be achieved.
- •Demonstrate understanding and use of different exception handling mechanisms and concept of multithreading for robust faster and efficient application development. And Identify and describe user interface components to design GUI in Java using Applet & AWT along with response to events

**PART – A**

1. Write a program to find factorial of list of number reading input as command line argument.
2. Write a program to implement method overloading and implement static methods and static variables in it.
3. Write a program to implement method overriding
4. Write a program to implement constructor overloading.
5. Write a program to implement user defined exception.
6. Write a Java Program which open an existing file and append text to that file.
7. Write a Java Program to implement the concept of multithreading with the use of any three multiplication tables. Define three threads with different priorities and each thread must create one multiplication table. For eg: table of 5,7,13
8. Write a program to create an Applet that adds values of integers and display it in the center.

**PART – B**

1. Write a program to create student details (register number, name and total marks) using applet, read the input using text boxes and display the output using buttons.
2. Write a Java Program to create Menu Bars and pull down menus.
3. Write a program to create a frame with two buttons namely “FATHER” and “MOTHER”. Display details like name, age, designation of father and mother based on the button clicked.
4. Write a Java Program to draw circle, square, ellipse and rectangle at different mouse click positions.

5. Write a program to get filename at runtime and display the number of lines and words in the file.
6. Write a program to copy contents of a file to another file using classes of java.io package. Read the filenames at runtime from the user. If the target file exists, ask confirmation to overwrite and take necessary actions.
7. Write a program to implement keyboard events. Display “Good Morning” when M is pressed, “Good Afternoon” when A is pressed, “Good Evening” when E is pressed and “Good Night” when N is pressed.
8. Write a program to implement interface having methods for getting the information of an employee from the user and displaying the output.