**BMS INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

(An autonomous Institution, Affiliated to VTU)

Doddaballapura Main Road, Avalahalli, Yelahanka, Bengaluru 560064

**DEPARTMENT OF MCA**

**IPCC Course – Java Programming Lab**

Course Code – 22MCA204

Course Coordinator – Shivakumara T

**Program List - Basic Java Programs**

1. **Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Declaration of variables and Initialization,

ii. Conditional and Iterative Statements - If, else, for, while and switch

1. **Demonstration of Command Line Based Java Programming - Identify suitable application to do the following**

i. Strings handling functions such as – length, concat, equals, isEmpty

1. **Demonstration of Command Line Based Java Programming - Identify suitable application to do the following**

i. Arrays store the value of invoice bill of a restaurant for ex: name of customer, qty, rate,

total (add 5% SGST and 5% CGST) and display grand\_total.

1. **Demonstration of Command Line Based Java Programming - Identify suitable application to do the following**

i. Illustrate, getting user input through Java Stream Classes of all data types of Java.

**2.**

**A. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Java Method Parameters – Method overloading and Method Overriding

**B. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Implement the usage of all access specifiers such as public, private, protected and default.

**C. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Illustrate the local variable, instance variable and scope of class objects.

**D. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Implement the Recursion to find the factorial of a given number

ii. Illustrate Modifiers – Super, final and static

**3.**

**A. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Implement Inheritance – Single, multiple, multilevel

**B. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Implement Polymorphism – is-A and Has-A relationship. Compile-Time, Runtime

**C. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Implement Inner Classes and Enums

**D. Demonstration of Command Line Based Java Programming – Identify suitable application to do the following**

i. Impalement Data Abstraction and interface,

**4. Demonstration of the following**

i. Java Exceptions

ii. Threads

iii. RegEx

iv. String Handling