

**Expt. No. 1a:**

**Develop Programs using Java Basic Constructs (Data Types, Variables, Operators & Expressions) using ECLIPSE**

**i. Mobile Recharge Application**

A mobile recharge application calculates the final amount to be paid after applying a flat discount. The user enters the recharge amount as an integer, and the discount as a percentage (e.g., 10.0). Write a Java program segment that declares appropriate variables using suitable data types, applies the discount using arithmetic operators, and prints the final amount to be paid.

**ii. Electricity Bill Calculator**

An electricity board charges customers based on their monthly usage. The first 100 units are charged at ₹1.50 per unit, and units above 100 are charged at ₹2.50 per unit. Create a Java code snippet that takes the number of units consumed as input, uses suitable data types and variables, and calculates the total bill using expressions and operators.

**iii. BMI Calculator**

You are designing a health app that calculates the Body Mass Index (BMI) of a user. The user provides height in meters and weight in kilograms. Write a Java code snippet using appropriate data types, variables, and expressions to compute BMI using the formula  $BMI = \text{weight} / (\text{height} * \text{height})$ . Also, print the BMI result.