

CS23304 –Java Programming Laboratory – N batch

Inheritance

Exercise-V

Date: 13.8.25

Max.Marks: 15 marks

(10 marks for execution + 5 marks for observation)

1. Design a class named **Person** with fields for holding a Person's **name**, **address** and **telephone number,emailid**. Create a class named **Customer**, which extends the **Person** class. The **Customer** class should have a field for a **customer number(int)** and a boolean field indicating whether the customer wishes to be on a mailing list. Design a class named **PreferredCustomer**, which extends the **Customer** class The **PreferredCustomer** class should have fields for the amount of the customer's purchases and the customer's discount level.

A retail store has a **PreferredCustomer** plan where customers can earn discounts on all their purchases. The amount of a customer's discount is determined by the amount of the Customer's cumulative purchases in the store as follows:

- i. When a preferred customer spends Rs1,000, he or she gets a 7 percent discount on all future purchases.
- ii. When a preferred customer spends Rs 2,000 or more, he or she gets a 10 percent discount on all future purchases.

Include constructors with arguments and appropriate set and get methods, toString() for each of the class. Write a Test program to create an array objects of the Person and store the Customer and Preferred Customer and invoke the methods of the classes.