Assignment – 04
(Inheritance and Polymorphism)

1) Write a program that illustrates method overriding. Write a class Human having instance variables humanName, humanAge and humanCountry with a constructor. Define a method humanDescription that displays name, age and country. Class Human is extended by class Girl or Boy having instance variables humanOccupation, humanHobby. Define a constructor to initialize all data. Override method humanDescription that will describe human.

2) Create a class Fe with instance variables fr and fp stores first yr roll no and percentage using constructor. Class Se extends Fe with instance variables sr and sp stores second yr roll no and percentage using constructor. Class Te extends Se with instance variables tr and tp stores third yr roll no and percentage using constructor. Define method average in Te class that returns avg. of all 3 yrs percentage. Create a class student with main method and display yr, roll no and percentage of a student and average performance. (MULTILEVEL INHERITANCE)

3) Create a class Vehicle having method printDescription() that displays class name. Classes Car, Truck and Bicycle extend from Vehicle and override the method. Create another class Automobile having main method that creates object of base class. Take the input V,C,T or B from command prompt for above classes and display the name of class.

4) Write a Java program for achieving the following upcasting: