# INHERITANCE QUESTIONS

Theoretical

1. What is inheritance ?

   Inheritance is a mechanism in Java where one class acquires/uses the property of another class. These properties include fields as well as methods.

2. Why do we need inheritance ?
3. What are the types of inheritance and which types of inheritance is supported in java ?
4. Explain all the inheritance types in java.
5. Can we extend more than one class in java ?
6. What is the use of super keywords ?
7. Can we access the subclass method using superclass objects ?
8. Why is multiple inheritance not supported in java ?

Practicals
1. Create a class with a method that prints "This is parent class" and its subclass with another method that prints "This is child class". Now, create an object for each of the class and call
   1 - method of parent class by object of parent class
   2 - method of child class by object of child class
   3 - method of parent class by object of child class
2. Create a class named 'Rectangle' with two data members 'length' and 'breadth' and two methods to print the area and perimeter of the rectangle respectively. Its constructor having parameters for length and breadth is used to initialize length and breadth of the rectangle. Let class 'Square' inherit the 'Rectangle' class with its constructor having a parameter for its side (suppose s) calling the constructor of its parent class as 'super(s,s)'. Print the area and perimeter of a rectangle and a square.
3. Create a class named 'Shape' with a method to print "This is This is shape". Then create two other classes named 'Rectangle', 'Circle' inheriting the Shape class, both having a method to print "This is rectangular shape" and "This is circular shape" respectively. Create a subclass 'Square' of 'Rectangle' having a method to print "Square is a rectangle". Now call the method of 'Shape' and 'Rectangle' class by the object of 'Square' class.