

Q1.

```
import java.util.Scanner;

class plate {
    int length, width;
    plate () {
        System.out.println ("Plate Class Constructor");
    }
}

class box extends plate {
    int height;
    box () {
        System.out.println ("Box Class Constructor.");
    }
}

class wood-box extends box {
    int thick;
    wood-box (int l, int w, int h, int t) {
        System.out.println ("Wood Box Class Constructor");
        length= l;
        width= w;
        height= h;
        thick= t;
        System.out.println ("length: " + length + "\n Breadth : " + width + " \n height: " + height + "\n Thick : " + thick);
    }
}

public class q3 {
    public static void main (String args[]) {
        wood-box obj = new wood-box (3, 4, 5, 6);
    }
}
```

Q2.

```
class shape {
    double area;
    void showArea() {
        System.out.println ("Area: " + area);
    }
}

class Circle extends Shape {
    double radius;
    circle (int r) {
        radius= r;
    }
    @Override
    void showArea () {
        area= 3.14 * radius * radius;
        super.showArea();
    }
}

class Rectangle extends shape {
    double len, bre;
    Rectangle (int l, int b) {
        len= l;
        bre= b;
    }
    @Override
    void showArea () {
        area= len * bre;
        super.showArea();
    }
}

public class q1 {
    public static void main (String args[]) {
        Circle c1 = new circle (5);
        Rectangle R1 = new Rectangle (4, 5);
        c1.showArea();
        R1.showArea();
    }
}
```