Qu 1 : Operation package program

```
 // addition.java
package operation;
public class addition
{
      public void add(int a,int b,double c,double d)
      {
            System.out.println("Addition of integer is::"+ (a+b));
            System.out.println("Addition of float is::"+ (c+d));
      }

      public void subtract(int a,int b,double c,double d)
        {
                System.out.println("Subtraction of integer is::"+ (a-b));
                System.out.println("Subtraction of float is::"+ (c-d));
        }
}


//maximum.java
package operation;
public class maximum
{
      public void max(int a,int b)
      {
            int c;
            System.out.println("Maximum number is::"+ (c = (a >b)?a:b));
      }
}

//arithmatic.java

import operation.*;
import java.io.*;
class arithmatic
{
        public static void main(String args[])
        {
                addition a =new addition();
                a.add(10,20,2.5,3.2);
                a.subtract(20,10,3.5,2.5);
                maximum m= new maximum();
                m.max(50,100);
        }
}
```

Qu2 Inheritance demo program

```
import java.io.*;
import java.util.*;

class vehicle
{
```

```
	void display()
	{
		System.out.println("I am in super class vehicle");
	}
}

class twowheeler extends vehicle
{
	void display1()
	{
		System.out.println("I am in extended twowheeler class");
	}
}

class indemo
{
	public static void main(String args[])
	{
		twowheeler t = new twowheeler();
		t.display();
		t.display1();
	}
}
```

Qu3 Country Inheritance program

```
import java.io.*;
import java.util.*;
class continent
{
	String cont;
	Scanner sc =new Scanner(System.in);

	void cont_input()
	{
		System.out.println("Enter the continent name");
		cont = sc.next();
	}

}

class country extends continent
{
	String con;
	Scanner sc =new Scanner(System.in);

	void con_input()
	{
		System.out.println("Enter the contry name");
		con = sc.next();
	}

}

class state extends country
{
```

```
        String sta;
        Scanner sc =new Scanner(System.in);

        void sta_input()
        {
                System.out.println("Enter the State name");
                sta = sc.next();
        }

}

class place extends state
{
        String pla;
        Scanner sc =new Scanner(System.in);

        void pla_input()
        {
                System.out.println("Enter the Place name");
                pla = sc.next();
        }

}

class indemo2 extends place
{
        public static void main(String args[])
        {
                indemo2 p = new indemo2();
                p.cont_input();
                p.con_input();
                p.sta_input();
                p.pla_input();
                System.out.println("Continent name is :: " + p.cont);
                System.out.println("Country name is :: " + p.con);
                System.out.println("State name is :: " + p.sta);
                System.out.println("Place name is :: " + p.pla);
        }
}
```

Qu 4: College and Department inheritance

```
import java.io.*;
import java.util.*;
class college
{
        int cno;
        String cname,cadd;
}

class dept extends college
{
        int dno;
        String dname;
```

```
        public void accept()
        {
                Scanner sc = new Scanner(System.in);
                System.out.println("Enter the college code");
                super.cno=sc.nextInt();
                System.out.println("Enter the college name");
                super.cname=sc.next();
                System.out.println("Enter the college address");
                super.cadd=sc.next();
                System.out.println("Enter the Department code");
                dno=sc.nextInt();
                System.out.println("Enter the department name");
                dname=sc.next();
        }

        public void display()
        {
                System.out.println("College code ::" +super.cno);
                System.out.println("College name::" + super.cname);
                System.out.println("College address::" + super.cadd);
                System.out.println("Department code::" +dno);
                System.out.println("Department name::" +dname);
        }

        public static void main(String args[])
        {
                dept d =new dept();
                d.accept();
                d.display();
        }
}
```

Qu 5: Account , Saving account and Account details inheritance program

Qu 6: Vehicle, lightweight and heavyweight

```
import java.io.*;
import java.util.*;
class vehicle
{
      String cname;
      double price;

      public void accept()
      {
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter the company name");
            cname = sc.next();
            System.out.println("Enter the vehicle price");
            price = sc.nextDouble();
      }

      public void display()
      {
            System.out.println("Company name is " +cname+ "\n vehicle
price is " +price);
      }
}
```

```
class LightMotorVehicle extends vehicle
{
      double milage;

      public void accept()
      {
            super.accept();
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter the vehicle milage");
            milage = sc.nextDouble();
      }

      public void display()
      {
            super.display();
            System.out.println("Vehicle milage is " +milage);
      }
}

class HeavyMotorVehicle extends vehicle
{
      double capacity;

      public void accept()
      {
            super.accept();
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter the vehicle capacity");
            capacity = sc.nextDouble();
      }

      public void display()
      {
            super.display();
            System.out.println("Vehicle capacity is " +capacity);
      }
}

class vdemo
{
      public static void main(String args[])
      {
            int i,ch,n;
            Scanner sc =new Scanner(System.in);
            System.out.println(" Enter the type of vehicle you want:: \n
1.LightMotorVehicle  \n 2. HeavyMotorVehicle");
            ch = sc.nextInt();

            switch(ch)
            {
                  case 1:  System.out.println("How many vehicle you
want");
                        n = sc.nextInt();
                        LightMotorVehicle l[] =new LightMotorVehicle[n];
                       for(i=0;i<n;i++)
                       {
                             l[i]=new LightMotorVehicle();
```

```
                              l[i].accept();
                        }
                        System.out.println("******Light Motor Vehicle
Informatiom ***********");
                        for(i=0;i<n;i++)
                              l[i].display();
                        break;
                  case 2: System.out.println("How many vehicle you
want");
                        n = sc.nextInt();
                        HeavyMotorVehicle h[] =new HeavyMotorVehicle[n];
                                 for(i=0;i<n;i++)
                                 {
                                          h[i]=new HeavyMotorVehicle();
                                          h[i].accept();
                                 }
                                 System.out.println("******Heavy Motor
Vehicle Informatiom ***********");
                                 for(i=0;i<n;i++)
                                          h[i].display();
                        break;
                  default : System.out.println("Enter proper choice");
            }
      }
}
```

Qu 7: Customer , Depositer and borrower

```
import java.io.*;
import java.util.*;
class customer
{
      String name;
      int ph;

}

class depositor extends customer
{
      int acno;
      double balance;
}

class borrower extends depositor
{
      int lno;
      double lamount;

      public void read()
      {
            Scanner sc =new Scanner(System.in);
            System.out.println("Enter the customer name");
            super.name = sc.next();
            System.out.println("Enter the customer phone number");
                 super.ph = sc.nextInt();
            System.out.println("Enter the depositer account number");
                 super.acno = sc.nextInt();
```

```
            System.out.println("Enter the depositer account balance");
                 super.balance = sc.nextDouble();
            System.out.println("Enter the borrower loan number");
                 lno = sc.nextInt();
            System.out.println("Enter the borrower loan amount");
                 lamount = sc.nextDouble();

      }

      public void display()
      {
             System.out.println("Customer name is::" +super.name + "\n
Phone number ::"+super.ph +"\n Account number is::" +super.acno +"\n
Account balance is::"+super.balance + "\n Loan number is::"+lno+"\n Loan
amount is::"+lamount);
      }
}

class cdemo
{
      public static void main(String args[])
      {
            int n,i;
            Scanner sc = new Scanner(System.in);
            System.out.println("How many customer you want");
            n= sc.nextInt();
            borrower b[] = new borrower[n];
            System.out.println("Enter "+n+" Customer information");
            for(i=0;i<n;i++)
            {
                  b[i]=new borrower();
                  b[i].read();
            }

            System.out.println("***********Customer
information***********");
            for(i=0;i<n;i++)
            b[i].display();
      }
}
```

Qu 8: Employee and manager [getsalary() method overriden]

```
import java.io.*;
import java.util.*;
class employee
{
      double salary;

      employee()
      {
            salary = 35000;
      }

      public double getsalary()
      {
            Scanner sc = new Scanner(System.in);
```

```
            double withdraw;
            System.out.println("Enter the salary which employee want to
withdraw ");
            withdraw =sc.nextDouble();
            return (salary - withdraw);
      }
}

class manager extends employee
{
      double traveling,rent;

      manager()
      {
            traveling = 2000;
            rent= 5000;
      }
      public double getsalary()
        {
                return (super.salary + traveling+rent);
        }

}
class edemo
{
      public static void main(String args[])
      {
            employee e = new employee();
            manager m = new manager();
            System.out.println("Employee salary is " + e.salary +
"\nEmployee salary ifter withdraw is" +e.getsalary());
            System.out.println("Manager Salary is"+m.getsalary());

      }
}
```