Program 1:

```
//Create two threads such that one thread will print even number and another
//will print odd number in an ordered fashion.(Use Thread Class)

class even extends Thread
{
    public void run(){
      for(int i=0;i<=50;i=i+2)
    {
    System.out.println("Thread 1:"+i);
    }
    }

}
class odd extends Thread
{
    public void run()
    {
      for(int i=1;i<50;i=i+2)
    {
    System.out.println("Thread 2:"+i);
    }

    }
}
public class Exp7_1 {
    public static void main(String[] args){
    even e=new even();
    odd o=new odd();
    e.start();
    o.start();

    }

}
```

Output:

```
D:\College\JAVA\Experiments\Exp7>java Exp7_1
Thread 1:0
Thread 2:1
Thread 1:2
Thread 2:3
Thread 1:4
Thread 2:5
Thread 1:6
Thread 1:8
Thread 1:10
Thread 2:7
Thread 2:9

D:\College\JAVA\Experiments\Exp7>
```

Program 2:

```
//Write java program to print Table of Five, Seven and Thirteen using
//Multithreading(Use Runnable Interface)

class table implements Runnable{
    int n;
    table(int n){
        this.n=n;
    }
    public void run() {
        for (int i = 1; i <= 10; i++) {
            System.out.printf("%s: %d * %d = %d\n",
Thread.currentThread().getName(),n, i, i * n);        }
    }
}
public class Exp7_2 {
    public static void main(String[] args) {
        System.out.println("Printing table of 5,7,13");
```

```
        table mul1 = new table(5);
        Thread t1= new Thread(mul1);
        table mul2 = new table(7);
        Thread t2= new Thread(mul2);
        table mul3 = new table(13);
        Thread t3= new Thread(mul3);
        t1.start();
        t2.start();
        t3.start();

    }
}
```

Output:

```
D:\College\JAVA\Experiments\Exp7>javac Exp7_2.java

D:\College\JAVA\Experiments\Exp7>java Exp7_2
Printing table of 5,7,13
Thread-0: 5 * 1 = 5
Thread-0: 5 * 2 = 10
Thread-0: 5 * 3 = 15
Thread-1: 7 * 1 = 7
Thread-1: 7 * 2 = 14
Thread-2: 13 * 1 = 13
Thread-2: 13 * 2 = 26
Thread-2: 13 * 3 = 39
Thread-1: 7 * 3 = 21
Thread-0: 5 * 4 = 20
Thread-0: 5 * 5 = 25
Thread-0: 5 * 6 = 30
Thread-0: 5 * 7 = 35
Thread-1: 7 * 4 = 28
Thread-1: 7 * 5 = 35
Thread-2: 13 * 4 = 52
Thread-2: 13 * 5 = 65
Thread-1: 7 * 6 = 42
Thread-0: 5 * 8 = 40
Thread-1: 7 * 7 = 49
Thread-2: 13 * 6 = 78
Thread-1: 7 * 8 = 56
Thread-0: 5 * 9 = 45
Thread-0: 5 * 10 = 50
Thread-1: 7 * 9 = 63
Thread-1: 7 * 10 = 70
Thread-2: 13 * 7 = 91
Thread-2: 13 * 8 = 104
Thread-2: 13 * 9 = 117
Thread-2: 13 * 10 = 130

D:\College\JAVA\Experiments\Exp7>
```

Questions:

Question 1:

```
//Write java program to implement the concept of Thread Synchronization.
class List{

    synchronized public void display(int[] arr){ //synchronized method
        for (int i = 0; i < arr.length; i++) {
            System.out.println(arr[i]);
            try {
                Thread .sleep( 100 );
            }
            catch ( Exception e){ System .out.println(e);}
        }
    }
}
//Class myThread 2 for printing array 0,1,2,3,4,5
class myThread1 extends Thread{

    List l;
    private int[] myNum = {0,1,2,3,4,5};
    myThread1(List l){
        this.l = l;
    }
    public void  run(){
        l.display(myNum);
    }
}
//Class myThread 2 for printing array 10,11,12,13,14,15
class myThread2 extends Thread{

    List l;
    private int[] myNum = {10,11,12,13,14,15};
    myThread2(List l){
        this.l = l;
    }
    public void  run(){
        l.display(myNum);
    }
```

```java
}

public class Questions{

    public static void main(String[] args) {

        List l = new List();//only one object

        myThread1 t1 = new myThread1(l);
        myThread2 t2 = new myThread2(l);

        t1.start();
        t2.start();
    }
}
```

Output:

```
D:\College\JAVA\Experiments\Exp7>javac Questions.java

D:\College\JAVA\Experiments\Exp7>java Questions
0
1
2
3
4
5
10
11
12
13
14
15

D:\College\JAVA\Experiments\Exp7>
```