Practical 24

Aim : Define MYPriorityQueue class that extends Priority Queue to implement the Cloneable interface and implement the clone() method to clone a priority queue.

Code :

MyPriorityQueue.java

```java
import java.util.*;

public class MyPriorityQueue<E> extends PriorityQueue<E> implements Cloneable{

                public MyPriorityQueue<E>clone() throws
CloneNotSupportedException{

                    MyPriorityQueue<E> temp=new MyPriorityQueue<>();

                    temp.addAll((MyPriorityQueue<E>)super.clone());

                    return temp;

                }

}
```
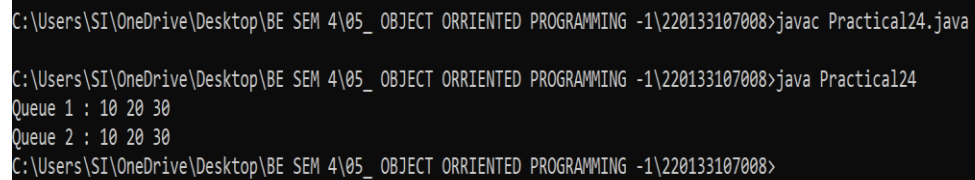
Practical24.java

```java
class Practical24

{

public static void main(String[] args) throws CloneNotSupportedException

{

MyPriorityQueue<Integer> q1= new MyPriorityQueue<>();

q1.offer(10);

q1.offer(20);

q1.offer(30);

MyPriorityQueue<Integer> q2=q1.clone();

System.out.print("Queue 1 : ");

while (q1.size() > 0){

                    System.out.print(q1.remove() + " ");
```

```
}
System.out.println();
System.out.print("Queue 2 : ");
while (q2.size() > 0){
                 System.out.print(q2.remove() + " ");
}
}
}
```

Output :

```
C:\Users\SI\OneDrive\Desktop\BE SEM 4\05_ OBJECT ORRIENTED PROGRAMMING -1\220133107008>javac Practical24.java

C:\Users\SI\OneDrive\Desktop\BE SEM 4\05_ OBJECT ORRIENTED PROGRAMMING -1\220133107008>java Practical24
Queue 1 : 10 20 30
Queue 2 : 10 20 30
C:\Users\SI\OneDrive\Desktop\BE SEM 4\05_ OBJECT ORRIENTED PROGRAMMING -1\220133107008>
```