```java
import java.io.*;

public class question43
{
    public static void main(String args[])
    {
        int arr[][]={{1,1,2},{1,2,0},{1,0,5}};
        int max=0;
        int min=0;

        //diagonal elements
        System.out.println("Diagonal elements:");
        for(int i=0;i<3;i++)
        {
            for(int j=0;j<3;j++)
            {
                if(i==j)
                    System.out.print(arr[i][j]+" ");
            }
        }

        //lower triangle elements
        System.out.println("\nLower triangle elements:");
        for(int i=0;i<3;i++)
        {
            for(int j=0;j<3;j++)
            {
                if(i>=j)
                    System.out.print(arr[i][j]+" ");
            }
            System.out.println();//this is just so as to take our cursor to the next line
        }

        //upper triangle elements
        System.out.println("Upper triangle elements:");
        for(int i=0;i<3;i++)
        {
            for(int j=0;j<3;j++)
            {
                if(i<=j)
                    System.out.print(arr[i][j]+" ");
                else
                    System.out.print("  ");
            }
            System.out.println();//this is just so as to take our cursor to the next line
        }


    }
}
```