Placement Preparation Test 3

Name: Devdatta Raorane

PRN : 024

Set 2

Q.1) Accept 10 number in an array. Display all even number at the beginning and all Odd at the end. Use only one loop

```java
package test3;

import java.util.Scanner;

//Accept 10 number in an array. Display all even number at the beginning and all
Odd at
//the end. Use only one loop
public class Ques1 {

    public static void evenumbers()
    {
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter Numbers: ");
        int arr[]=new int[10];
        int left=0;
        int right=arr.length-1;
        for(int i=0;i<arr.length;i++)
        {
            int a=sc.nextInt();
            if(a%2==0)
            {
                arr[left++]=a;
            }
            else
            {
                arr[right--]=a;
            }
        }

        for(int nums:arr)
        {
            System.out.print(nums+" ");
        }


    }
    public static void main(String[] args)
    {
        evenumbers();
    }

}
```

Q.2) Accept 5 number in an array and sort it. Accept a number from user and check if it is there in an array or not use binary search.

```java
package test3;

import java.util.Arrays;
import java.util.Scanner;

public class Ques2 {

    static void binsearch(int arr[], int target) {
        Arrays.sort(arr);

        int left = 0;
        int right = arr.length - 1;
        boolean found = false;

        while (left <= right) {
            int mid = (left + right) / 2;

            if (arr[mid] == target) {
                System.out.println("Element found at index " + mid);
                found = true;
                break;
            }
            else if (arr[mid] < target) {
                left = mid + 1;
            }
            else {
                right = mid - 1;
            }
        }

        if (!found) {
            System.out.println("Element not found");
        }
    }

    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);
        int arr[] = new int[5];

        System.out.print("Enter Array elements: ");
        for (int i = 0; i < arr.length; i++) {
            arr[i] = sc.nextInt();
        }

        System.out.print("Enter element to search: ");
        int n = sc.nextInt();

        binsearch(arr, n);
        sc.close();
    }
}
```