

## Programming Assignment-7

### 1. Write a Python Program to find sum of array?

**Ans.**

```
def sum_of_array(arr):  
    return sum(arr)
```

*# Example*

```
arr = [1, 2, 3, 4, 5]  
print("Sum of array:", sum_of_array(arr))
```

### 2. Write a Python Program to find largest element in an array?

**Ans.**

```
def largest_element(arr):  
    return max(arr)
```

*# Example*

```
arr = [10, 20, 4, 45, 99]  
print("Largest element:", largest_element(arr))
```

### 3. Write a Python Program for array rotation?

**Ans.**

```
def rotate_array(arr, n):  
    return arr[n:] + arr[:n]
```

*# Example: Rotate by 2 positions*

```
arr = [1, 2, 3, 4, 5]  
n = 2  
print("Rotated array:", rotate_array(arr, n))
```

#### 4. Write a Python Program to Split the array and add the first part to the end?

**Ans.**

```
def split_and_add(arr, n):  
    return arr[n:] + arr[:n]
```

*# Example: Split at index 2 and move first part to the end*

```
arr = [12, 10, 5, 6, 52, 36]  
  
n = 2  
  
print("Array after splitting and adding:", split_and_add(arr, n))
```

#### 5. Write a Python Program to check if given array is Monotonic?

**Ans.**

```
def is_monotonic(arr):  
    return all(arr[i] <= arr[i+1] for i in range(len(arr)-1)) or all(arr[i] >= arr[i+1] for i in range(len(arr)-1))
```

*# Example*

```
arr = [6, 5, 4, 4]  
  
print("Is array monotonic?", is_monotonic(arr))
```