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

Ans1

array = [1, 2, 3, 4, 5] # example array

sum = 0

for num in array:

sum += num

print("The sum of the array is:", sum)

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

Ans2

array = [1, 2, 3, 4, 5] # example array

max\_num = array[0] # assume the first element is the largest

for num in array:

if num > max\_num:

max\_num = num

print("The largest element in the array is:", max\_num)

3. Write a Python Program for array rotation?

Ans3

def rotate\_array(arr, n):

pivot = len(arr) - n

rotated\_array = arr[pivot:] + arr[:pivot]

return rotated\_array

array = [1, 2, 3, 4, 5] # example array

n = 2 # number of positions to rotate the array

rotated\_array = rotate\_array(array, n)

print("Original array:", array)

print("Rotated array:", rotated\_array)

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

Ans4

def split\_array(arr, n):

split\_array = arr[n:] + arr[:n]

return split\_array

array = [1, 2, 3, 4, 5] # example array

n = 2 # index at which to split the array

split\_array = split\_array(array, n)

print("Original array:", array)

print("Split and rotated array:", split\_array)

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

Ans5

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))

array1 = [1, 2, 3, 4, 5] # increasing array

array2 = [5, 4, 3, 2, 1] # decreasing array

array3 = [1, 2, 3, 2, 1] # non-monotonic array

print("Array 1 is monotonic:", is\_monotonic(array1))

print("Array 2 is monotonic:", is\_monotonic(array2))

print("Array 3 is monotonic:", is\_monotonic(array3))