

# Programming Basic Assignment 7

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

```
In [10]: 1 arr=[1,2,3,4,5]
          2 #sum of array is
          3 print("The sum of array is",sum(arr))
```

The sum of array is 15

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

```
In [12]: 1 arr=[1,2,3,4,5]
          2 max(arr)
```

Out[12]: 5

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

```
In [27]: 1 #Define function to rotate element
          2 def rotatearr(start,end):
          3     # Define the length
          4     n=len(start)
          5     #Use splicing operator ( : ) to store the elements from "start" to "end" and
          6     start[:]=start[end:n]+start[0:end]
          7     return start
          8 arr = [29, 30, 31, 32, 33, 34]
          9 print("Rotated array")
         10 print(rotatearr(arr,2))
```

Rotated array  
[31, 32, 33, 34, 29, 30]

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

```

In [12]: 1  #define the function split and add the first part to end
          2  def splitarray(arr,l,p):
          3      for i in range(0,p):
          4          x= arr[0]
          5      #pass forloop which moves the elements one place
          6          for j in range(0,l-1):
          7              arr[j]=arr[j+1]
          8      #pass the last element value to x
          9          arr[l-1]=x
         10      #pass array need to be split and add to the first part
         11      arr=[10,20,30,40,50,60,70,80,90,100]
         12      #define length
         13      l=len(arr)
         14      #Pass the position from the beggining of the array need to add to the end of
         15      position = 2
         16      #pass the function to split and add the first 2 position to the end
         17      splitarray(arr,l,position)
         18      # Now we can print the result by using a for loop statement
         19      for i in range(0,l):
         20          print(arr[i],end=', ')

```

30, 40, 50, 60, 70, 80, 90, 100, 10, 20,

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

```

In [19]: 1  #define a function to check the array is monotonic
          2  def monotunic(X):
          3      return(all(X[i]<=X[i+1]for i in range(len(X)-1)) or
          4                  all(X[i]>=X[i+1]for i in range(len(X)-1)))
          5      arr=[10,20,30,40,50,60,70,80,90,100]
          6      print(monotunic(arr))

```

True

In [ ]:

1