ASSIGNMENT:

Set 1:

1. Stray number:

array=[2,2,6,2,2,2,2]

def stray(array):

'''Finds the stray number in an array'''

first\_no = array[0]

second\_no = array[1]

if first\_no != second\_no:

third\_no = array[2]

if third\_no == second\_no:

return first\_no

else:

return second\_no

for no in array:

if no != first\_no:

return no

print (stray(array))

lst = [1, 2, 3, 4, 5]

n = len(lst)

get\_sum = sum(lst)

mean = get\_sum / n

print(str(mean))

def closest(lst, mean):

return lst[min(range(len(lst)), key=lambda i: abs(lst[i] - mean))]

print(closest(lst, mean))

3.

def cal\_speed(dist, time):

    print(" Distance(km) :", dist);

    print(" Time(hr) :", time);

    return dist / time;

def cal\_dis(speed, time):

    print(" Time(hr) :", time) ;

    print(" Speed(km / hr) :", speed);

    return speed \* time;

def cal\_time(dist, speed):

    print(" Distance(km) :", dist);

    print(" Speed(km / hr) :", speed);

    return speed \* dist;

print(" The calculated Speed(km / hr) is :",

                     cal\_speed(45.9, 2.0 ));

print("");

print(" The calculated Distance(km) :",

                   cal\_dis(62.9, 2.5));

print("");

print(" The calculated Time(hr) :",

              cal\_time(48.0, 4.5));

5. missing no:

def getMissingNo(A):

    n = len(A)

    total = (n + 1)\*(n + 2)/2

    sum\_of\_A = sum(A)

    return total - sum\_of\_A

 A = [1, 2, 4, 5, 6]

miss = getMissingNo(A)

print(miss)

6.

NumList = []

Number = int(input("Please enter the Total Number of List Elements: "))

for i in range(1, Number + 1):

value = int(input("Please enter the Value of %d Element : " %i))

NumList.append(value)

for i in range (Number):

for j in range(i + 1, Number):

if(NumList[i] > NumList[j]):

temp = NumList[i]

NumList[i] = NumList[j]

NumList[j] = temp

print("Element After Sorting List in Ascending Order is : ", NumList)

print(NumList[0]-NumList[1])

7.

arr=[4,2,3,6,10]

def output(arr):

n=0

for i in arr:

n=n+i

mean=n/len(arr)

count=0

for j in arr:

if j<mean:

count=count+1

return count

print(output(arr))

Set2:

3.

Ip=a.b.c.d

Print(a\*256\*\*3+b\*256\*\*2+c\*256+d)

4. isogram

def is\_isogram(word):

    lword = word.lower()

    letter\_list = []

    for letter in lword:

            if letter in letter\_list:

                return False

            letter\_list.append(letter)

    return True

5. mexican wave

s='ruchi'

newlist=[]

for i in range(0,len(s)):

up=s[i].upper()

c=s[:i] + up + s[i+1:]

newlist.append(c)

print(newlist)

6.

def maxnumber(n, k):

    for i in range(0, k):

        ans = 0

        i = 1

        while n // i > 0:

            temp = (n//(i \* 10))\*i + (n % i)

            i \*= 10

            if temp > ans:

                ans = temp

        n = ans

    return ans;

n = 6358

k = 1

print(maxnumber(n, k))

8.

test\_str = "Hello"

all\_freq = {}

for i in test\_str:

    if i in all\_freq:

        all\_freq[i] += 1

    else:

        all\_freq[i] = 1

print (str(all\_freq))

7.

def printMaximum(inum):

        count = [0 for x in range(10)]

    string = str(num)

    for i in range(len(string)):

        count[int(string[i])] = count[int(string[i])] +  1

    result = 0

multiplier = 1

    for i in range(10):

        while count[i] > 0:

            result = result + ( i \* multiplier )

            count[i] = count[i] - 1

            multiplier = multiplier \* 10

    return result

num = 38293367

print printMaximum(num)