PYTHON PROGRAMMING

SLOT 5

1. Write a Python program that accept a sentence from the user and form an abbreviation from it

PROGRAM

```
def abr(sen):
    for i in sen:
        print(i[0] , end = ' ')
sen = input('Enter the sentence ').split()
print(sen)
abr(sen)
```

OUTPUT

Enter the sentence Marthoma Institute Of Information Technology

['Marthoma', 'Institute', 'Of', 'Information', 'Technology']

M I O I T

2. Write a program to check whether the entered string is palindrome or not

PROGRAM

```python
def fun(str):
   if(str == str[::-1]):
       print("The string is a palindrome")
   else:
       print("The string isn't a palindrome")


str = input('enter the string ')
fun(str)
```

OUTPUT

Enter the string : malayalam

The string is a palindrome

3. Write a program to check whether the entered sentence is palindrome or not

PROGRAM

```python
def pal(sen):
    sennew = ''

    for i in sen:
        if (i.isalnum()):
            sennew = sennew + i

    if(sennew == sennew[::-1]):
        print('Sentence is palindrome')
    else:
        print('Sentence is not palindrome')

sen = input('Enter the sentence : ').casefold()
print('Entred sentence is - ' , sen).
pal(sen)
```

OUTPUT

Enter the sentence : A nut for a jar of tuna

Entred sentence is - a nut for a jar of tuna

Sentence is palindrome

4. Write a Python function that takes a number as a parameter and check the number is prime or not.

PROGRAM

```
def prime(num):
    if (num == 0 or num == 1):
        print('You entred 0 0r 1')
        return

    if num == 2:
        print(num , 'Is prime')
    elif(num % 2 == 0):
        print(num , ' Is Not prime')
    else:
        print(num , 'Is Prime')

num = int(input('Enter the number :'))
print('Entred num is ', num)
prime(num)
```

OUTPUT

Enter the number :97

Entred num is 97

97 Is Prime

5. Write a Python program to find the sum of n natural numbers using recursion.

PROGRAM

```python
def sum(num):
    if num <= 1:
        return num
    else:
        return num + sum(num-1)


num = int(input('Enter the limit : '))
if num < 0:
    print("Enter a postive number")
else:
    print("Sum is " , sum(num))
```

OUTPUT

Enter the limit : 100

Sum is 5050

6. Write a Python function to find the sum of digits of a number

PROGRAM

```python
def sum(num):
    sum = 0
    for i in range(len(num)):
        sum = sum + int(num[i])
    print('Sum of digits of ', num , 'is' , sum)

num = input('Enter the number : ')
print('Entred num is ', num)
sum(num)
```

OUTPUT

Enter the number : 256

Entred num is 256

Sum of digits of 256 is 13

7. Write a Python function to concatenate two strings.

PROGARAM

```python
def con(str1, str2):
    strnew = ' '.join([str1 , str2])
    print(strnew)


str1 = input('Enter first string : ')
str2 = input('Enter second string : ')
print('First string is : ' , str1)
print('Second string is : ' , str2)
con(str1 , str2)
```

OUTPUT

Enter first string : MIIT

Enter second string : AYUR

First string is : MIIT

Second string is : AYUR

MIITAYUR

8. Write a Python program to print the even numbers from a given list using function.

PROGRAM

```python
def even(list):
    listnew=[]
    for i in list:
        if i % 2 == 0:
            listnew.append(i)
    print('List of even numbers : ' , listnew)

list=input('enter the list ').split()
list=map(int,list)
even(list)
```

OUTPUT

Enter the list 23 12 65 34 22 89 56 48 10 5
List of even numbers : [12, 34, 22, 56, 48, 10]

9. Write a Python function that takes a list and returns a new list with unique elements of the first list.

PROGRAM

```
def fun(list):
    listnew=[]
    for i in list:
        if i not in listnew:
            listnew.append(i)
    print(listnew)


list=input('Enter the elements : ').split()
fun(list)
```

OUTPUT

Enter the elements : aby aby 23 kollam mca mca

['aby', '23', 'kollam', 'mca']

10. Write a Python function that accepts a string and calculate the number of uppercase letters and lower case letters.

PROGRAM

```python
def fun(str):
    upper = lower = 0
    for i in str:
        if i.isupper():
            upper += 1
        elif i.islower():
            lower += 1
    print('No of uppercase ',upper)
    print('No of lower case ',lower)

str=input('Enter the string  : ')
fun(str)
```

OUTPUT

Enter the string : Marthoma Institute Ayur

No of uppercase 3

No of lower case 18

11. Write a Python program that accepts a hyphen-separated sequence of words as input and prints the words in a hyphen-separated sequence after sorting them alphabetically.

PROGRAM

```
def fun(str):
    l = str.split('-')
    l.sort()
    return('-'.join(l))

str=input('enter the words with hyphen separated  ')
r = fun(str)
print(r)
```

OUTPUT

Enter the words with hyphen separated : mar-thoma-ayur-kollam

ayur-kollam-mar-thoma

12. Write a Python function that takes two lists and returns True if they have at least one common member.

PROGRAM

```python
def unique(list1,list2):
    result = 'false'
    for i in list1:
        for j in list2:
            if i==j:
                result='true'
    return result

list1=input('Enter the list :  ').split()
list2=input('Enter the list :  ').split()
r = unique(list1,list2)
print(r)
if  r  ==  'true':
    print('have a common member')
else:
    print('have no common memeber')
```

OUTPUT

Enter the first list : Marthoma College Ayur Kollam

Enter the second list : MIIT Ayur

true

have a common member