Practical-3: Iterative Statements and Strings

1) WRITE A PROGRAM TO CHECK IF NUMBER IS ARMSTRONG.

CODE:

```
print(21012011074)
n=int(input("enter the number:"))
temp=n
x=len(str(n))
sum=0
while(n>0):
    y=n%10
    sum+=y**x
    n=n//10

if temp==sum:
    print("it's armstrong")
else:
    print("it's not armstrong")
```

OUTPUT:

```
21012011074
Enter the number:153
It's Armstrong
```

2) WRITE A PROGRAM TO CHECK SPECIAL NUMBER. (NUMBER IS EQUAL TO THE SUM OF ITS DIVISORS).

CODE:

```
print(21012011074)
n=int(input("Enter the number: "))
sum=0
for i in range(1,n):
    if n%i==0:
        sum+=i
if sum==n:
    print(n,"is special")
else:
    print(n,"is not special")
```

OUTPUT:

```
21012011074
Enter the number: 6
6 is special
```

3) WRITE CREATE A PROGRAM THAT WILL PRINT OUT WORDS THAT START WITH 'S' FROM THE BELOW GIVEN STATEMENT.

CODE:

```
print(21012011074)
st='Print only the words that start with s in this sentence'
res=[]
for s in st.split():
    if s[0] == 's':
        res.append(s)

print(res)
```

OUTPUT:

```
21012011074
['start', 's', 'sentence']
```

4) WRITE A PROGRAM TO GIVE OUTPUT OF ENTERED NUMBER MULTIPLICATION TABLE.

CODE:

```
print(21012011074)
n=int(input("Enter the number: "))
for i in range(1,11):
    print(n,' * ',i,' = ',n*i)
```

OUTPUT:

```
21012011074
Enter the number: 5
5  *  1  =  5
5  *  2  =  10
5  *  3  =  15
5  *  4  =  20
5  *  5  =  25
5  *  6  =  30
5  *  7  =  35
5  *  8  =  40
5  *  9  =  45
5  *  10  =  50
```

5) WRITE A PROGRAM TO FIND THE SUM OF DIGIT OF AN INPUT NUMBER USING WHILE LOOP.

CODE:

```
print(21012011074)
n=int(input("Enter the number: "))
sum=0
while(n!=0):
    sum+=n%10
    n=n//10

print("Sum of digits = ",sum)
```

OUTPUT:

```
21012011074
Enter the number: 999
Sum of digits =  27
```

6) GO TO STRING BELOW AND IF THE LENGTH OF A WORD IS EVEN PRINT "EVEN!".

CODE:

```
print(21012011074)
str='I love doing python programming in spyder'
def even(str):
  str = str.split()
  for a in str:
    if len(a)%2 == 0:
      a += ' = even!'
      print (a)
even(str)
```

OUTPUT:

```
21012011074
love = even!
python = even!
in = even!
spyder = even!
```

7) WRITE A PROGRAM TO CALCULATE FREQUENCY OF DIGIT, UPPER CASE CHARACTER AND LOWER CASE CHARACTER FROM THE STRING.

CODE:

```
print(21012011074)
count1=0
count2=0
count3=0
st='I Love Doing Python Programming In Spyder 8200297639'
for i in st:
    if i.isupper():
        count1+=1
    elif i.islower():
        count2+=1
    elif i.isdigit():
        count3+=1
print("Number of digits :",count3)
print("Number of lowercase :",count2)
print("Number of uppercase :",count1)
```

OUTPUT:

```
21012011074
Number of digits : 10
Number of lowercase : 28
Number of uppercase : 7
```

8) WRITE A PYTHON PROGRAM TO CHECK IF A STRING IS A PALINDROME OR NOT.

CODE:

```
print(21012011074)
st=input("Enter the string :")
rev="".join(reversed(st))
if(rev==st):
    print("It's palindrome")
else:
    print("It's not palindrome")
```

OUTPUT:

```
21012011074
Enter the string :MOM
It's palindrome
```

9) WRITE A PYTHON PROGRAM TO REMOVE I'TH CHARACTER FROM STRING.

CODE:

```
print(21012011074)
st='I love doing python programming in spyder'
n=int(input("Enter the index :"))
str=" "
for i in range(len(st)):
    if i!=n:
        str+=st[i]
print(str)
```

OUTPUT:

```
21012011074
Enter the index :8
 I love ding python programming in spyder
```

10) WRITE A PYTHON PROGRAM TO CHECK IF THE SUBSTRING IS PRESENT IN A GIVEN STRING.

CODE:

```
print(21012011074)
st='I love doing python programming in spyder'
sstr=(input("Enter the substring :"))

def string_check(st,sstr):
    if(st.find(sstr)==-1):
        print(sstr,"is not present")
    else:
        print(sstr,"is present")

string_check(st,sstr)
```

OUTPUT:

```
21012011074
Enter the substring :python
python is present
```