PYTHON ASSIGNMENT: 7

1. Define a generator which can iterate the numbers, which are divisible by 7, between a given range 0 and n.

def gen(n):

for i in range(n):

if(i%7==0):

yield i

for i in gen(25):

print(i)

2. Define a generator which can reverse the string provided as input.

def gen(s):

for i in range(len(s)-1,-1,-1):

yield s[i]

for i in gen("abcd"):

print(i)

3. Write a python program to detect the number of local variable declared in a function.

def fun():

a=5

b=a

c=8

print("a,b,c are local variable")

print(fun.\_\_code\_\_.co\_nlocals)

4. Write a python function that takes a list and returns a new list with unique elements of first list.

def fun(A):

B=set(A)

A=list(B)

print(A)

fun([5,6,5,7,8,1,2,7])

5. Write a python function that checks whether the passed string is palindrome or not.

def palin(s):

b=s[::-1]

if(b==s):

print("Palindrome")

else:

print("Not Palindrome")

palin("abcd")

palin("abba")

6. Write a python program to access a function inside a function.

def num(a):

def incr(val):

val=val+1

return(val)

def decr(val):

val=val-1

return(val)

print("Value increment wil be: ",incr(a))

print("Value decrement wil be: ",decr(a))

num(5)

7. Write a python program that takes any number of arguments and any type and returns the sum.

def sumfun(\*args):

sumval=0

for i in args:

sumval=sumval+int(i)

return sumval

print(sumfun(6,8,9,8,5,4))

print(sumfun(5,6,'7'))

8. Write a python program to demonstrate function as an function argument.

def incr(x):

return x+1

def decr(x):

return x-1

def operate(fun,x):

result=fun(x)

return result

print(operate(incr,3))

print(operate(decr,2))

9. A website requires the users to input username and password to register. Write a program to check validity of password given by the users.

Following are the criteria for checking the password.

1) At least 1 letter between (a-z)

2) At least 1 number between (0-9)

3) At least 1 letter between (A-Z)

4) At least 1 char from ($#@)

5) Minimum length of transcation password:6

6) Maximum length of transcation password:12

Your Program should accept a sequence of comma separated password and will check then according to the above criteria.

def checkpass(a):

spchar="$@#"

lower = 0

upper = 0

digits = 0

special = 0

for char in a:

if (char.islower()):

lower += 1

elif (char.isupper()):

upper += 1

elif (char.isdigit()):

digits += 1

elif (spchar.find(char) != -1):

special += 1

if (lower >= 1 and upper >= 1 and digits >= 1 and special >= 1 and len(a) in range(6,13)):

print(a, end=",")

A=["ABd1234@1","a","F1#","2w3E\*","2We3345"]

for i in A:

checkpass(i)