**PYTHON BASIC ASSIGNMENT\_16 - SUBMITTED BY SAMUEL DEVDAS**

1. Assign the value 7 to the variable guess\_me. Then, write the conditional tests (if, else, and elif) to print the string 'too low' if guess\_me is less than 7, 'too high' if greater than 7, and 'just right' if equal to 7.

Ans. guess\_me=7

if guess\_me<7:

print('too low')

elif guess\_me>7:

print('too high')

else:

print('just right')

2. Assign the value 7 to the variable guess\_me and the value 1 to the variable start. Write a while loop that compares start with guess\_me. Print too low if start is less than guess me. If start equals guess\_me, print 'found it!' and exit the loop. If start is greater than guess\_me, print 'oops' and exit the loop. Increment start at the end of the loop.

Ans. guess\_me=7

start=1

while guess\_me<8:

if start<guess\_me:

print('too low')

elif start==guess\_me:

print('Found it!')

break

elif start>guess\_me:

print('oops')

break

start+=1

Output:

too low

too low

too low

too low

too low

too low

Found it!

3. Print the following values of the list [3, 2, 1, 0] using a for loop.

Ans. list=[3,2,1,0]

for i in list:

print('element of list:',i)

Output:

element of list: 3

element of list: 2

element of list: 1

element of list: 0

4. Use a list comprehension to make a list of the even numbers in range(10)

Ans. list=[i for i in range(10) if i%2==0]

print(list)

Output: [0, 2, 4, 6, 8]

5. Use a dictionary comprehension to create the dictionary squares. Use range(10) to return the keys, and use the square of each key as its value.

Ans. squares={}

for i in range(10):

squares[i]=i\*\*2

print(squares)

Output:{0: 0, 1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81}

6. Construct the set odd from the odd numbers in the range using a set comprehension (10).

Ans. odd=set(())

for i in range(10):

if i%2==1:

odd.add(i)

print(odd)

Output: {1, 3, 5, 7, 9}

7. Use a generator comprehension to return the string 'Got ' and a number for the numbers in range(10). Iterate through this by using a for loop.

Ans. gencomp=(('got',i) for i in range(10) )

for i in gencomp:

print(i)

Output:

('got', 0)

('got', 1)

('got', 2)

('got', 3)

('got', 4)

('got', 5)

('got', 6)

('got', 7)

('got', 8)

('got', 9)

8. Define a function called good that returns the list ['Harry', 'Ron', 'Hermione'].

Ans.

def good():

list=['Harry','Ron','Hermione']

return list

9. Define a generator function called get\_odds that returns the odd numbers from range(10). Use a for loop to find and print the third value returned.

Ans.

def get\_odds():

odds=(i for i in range(10) if i%2==1)

l=[]

for i in odds:

l.append(i)

print('The odd numbers from range(10) are:',l)

print('The third value returned by the function get\_odds() is:', l[2])

Output:

The odd numbers from range(10) are: [1, 3, 5, 7, 9]

The third value returned by the function get\_odds() is: 5

10. Define an exception called OopsException. Raise this exception to see what happens. Then write the code to catch this exception and print 'Caught an oops'.

Ans. a=input('enter your name:')

try:

if len(a)>3:

raise Exception('OopsException')

except:

print('Caught an oops!')

pass

Output: enter your name:samuel

Caught an oops!

11. Use zip() to make a dictionary called movies that pairs these lists: titles = ['Creature of Habit', 'Crewel Fate'] and plots = ['A nun turns into a monster', 'A haunted yarn shop'].

Ans.titles = ['Creature of Habit', 'Crewel Fate']

plots = ['A nun turns into a monster', 'A haunted yarn shop']

movies=dict(zip(titles,plots))

print(movies)

Output: {'Creature of Habit': 'A nun turns into a monster',

'Crewel Fate': 'A haunted yarn shop'}