**Project 2: Python Programming Competition**

**Celia's Group**

**Programming Question:**

make a function that:

1. Ask the user to input a natural number with more than 5 digits, and the function only takes natural numbers with more than 5 digits.

2. Tell the user how many digits the number has.

3. Print the number backward (Ex: input 12580, output 08521)

**Answer:**

def digit\_function():

while True:

n=int(input('A nature number with at least 5 digits'))

if n > 9999:

n=str(n)

print('%d digits'%len(n))

print(n[::-1])

break

else:

print('error, the nature number should be positive and at least 5 digits')

digit\_function()

**Multiple Choice Questions:**

**Question 1**

What is the output of the following code:

Num\_list = [-8, -1, 3, 12, -4, 15, -10]

New\_list = Num\_list[ : -3]

print(New\_list)

1. [-4, 15, -10]
2. [-12, -4, 15, -10]
3. [-8, -1, 3, 12]
4. [-8, -1, 3]

**Answer 1: c**

**Question 2**

1.For a list:

Testlist = [[0,1],[5,['sixteen','i']],12,55,[1]]

What will happen when the statement:

print(Testlist[-4][-1])

is called?

a.12

b.[55]

c.1

d.['sixteen','i']

e.i

f.error

**Answer 2: d**

**Question 3**

Say I have two variables, a and b equal to string 'A' and integer 7. Even though it is obvious these two values aren't the same type, which of the following answers is a possible way to return a boolean that tests if the data type of these variables is equal?

a) a.kind = b.kind

b) type(a) = type(b)

c) data\_type(a) = data\_type(b)

d) a.Type == b.Type

e) type(a) == type(b)

**Answer 3:** e

**Question 4**

What is the outcome of the following code in Python?

x=0x1010

print(x)

a. x

b. 10

c.0x1010

d.4112

e.520

f.error

**Answer 4: d**

**Question 5**

The function blender is defined as:

def blender(input):

input \*= 20

input -= (input\*2)

input /= input

return input

With 4 as the input, what will this function return?

a) 80

b) 36

c) 1

d) 160

e) 2

**Answer 5: c**