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)

a. [-4, 15, -10]
b. [-12, -4, 15, -10]
c. [-8, -1, 3, 12]
d. [-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