

Python cơ bản - Bài luyện tập

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Question 1: Which is the output of the following program?

```
1 n = 1
2 for i in range(0, 500, 100):
3     n = i
4 print(n)
```

- a) 900
- b) 400
- c) None
- d) Raise an Error

Question 2: Which is the output of the following program?

```
1 data = "I'm learning Python!"
2 print(data.split()[1])
```

- a) Python
- b) learning
- c) I'm
- d) Raise an Error

Question 3: Which is the output of the following program?

```
1 def check_the_number(N):
2     list_of_numbers = []
3     result = ""
4     for i in range(1, 5):
5         list_of_numbers.append(i)
6     if N in list_of_numbers:
7         results = "True"
8     if N not in list_of_numbers:
9         results = "False"
10    return results
11
12 N = 2
13 results = check_the_number(N)
14 print(results)
```

- a) True
- b) False
- c) None
- d) Raise an Error

Question 4: Which is the output of the following program?

```
1 data = "my list : [ 1, 2, [3, 4]]"  
2 print(type(data))
```

- a) <class 'str'>
- b) <class 'list'>
- c) <class 'mydata'>
- d) Raise an Error

Question 5: Which is the output of the following program?

```
1 "Eiffel" > "Apple"
```

- a) True
- b) False
- c) Raise an Error
- d) None

Question 6: Which is the output of the following program?

```
1 n = 0  
2 for i in range(5):  
3     n += i  
4     if n>0 and n%3 == 0:  
5         break  
6 print(n)
```

- a) 0
- b) 3
- c) Raise an Error
- d) 6

Question 7: Which is the output of the following program?

```
1 space1 = "Cherry Blossom After Winter"  
2 space2 = "Flowers are blooming on the hillsides, which signals the coming of spring"  
3 space = space1 + space2  
4 print(space[-6:])
```

- a) spring
- b) Raise an Error
- c) Winter
- d) A and C

Question 8: Which is the output of the following program?

```
1 my_list = [0, 1, 1, 2, 1]  
2 odd = 1  
3 even = 0  
4  
5 for number in my_list:  
6     if number % 2 == 0:  
7         odd += number  
8     else:  
9         even += number  
10 print(f"odd:{odd}, even:{even}")
```

- a) odd:1, even:0
- b) odd:3, even:10
- c) odd:3, even:3
- d) Raise an Error

Question 9: Which is the output of the following program?

```
1 weather = '@the drizzle in spring makes the air more humid. @'
2 me = "i love iT!"
3
4 txt = weather.strip('@').capitalize()+ me.title()
5 print(txt)
```

- a) The drizzle in spring makes the air more humid. I Love It!
- b) The drizzle in spring makes the air more humid. i love it!
- c) the drizzle in spring makes the air more humid. @@ I Love It!
- d) Raise an Error

Question 10: Which is the output of the following program?

```
1 data = [1, 9, 3, -3 ]
2 data.sort()
3 print(data)
```

- a) [-3, 1, 3, 9]
- b) [1, 2, 3, 4]
- c) [9, 3, 1, -3]
- d) Raise an Error

Question 11: Which is the output of the following program?

```
1 my_exam = "Under the drizzle, the flower field seems covering with the glitter water drops!"
2 print(my_exam.strip('!').split())
```

- a) ['Under', 'the', 'drizzle,', 'the', 'flower', 'field', 'seems', 'covering', 'with', 'the', 'glitter', 'water', 'drops']
- b) Raise an Error
- c) ['Under', 'the', 'drizzle,', 'the', 'flower', 'field', 'seems', 'covering', 'with', 'the', 'glitter', 'water', 'drops', '!']
- d) a, c

Question 12: Which is the output of the following program?

```
1 my_string = "Peach blossoms bloom in spring"
2
3 my_bag_of_word = []
4 for element in my_string:
5     if element not in my_bag_of_word:
6         my_bag_of_word.append(element)
7 print(my_bag_of_word)
```

- a) ['P', 'e', 'a', 'c', 'h']
- b) [' ']
- c) Raise a Error
- d) ['P', 'e', 'a', 'c', 'h', ' ', 'b', 'l', 'o', 's', 's', 'o', 'm', 's', ' ', 'i', 'n', ' ', 'p', 'r', 'i', 'n', 'g']

Question 13: Which is the output of the following program?

```
1 my_string = "My name is Tom"
2 results = my_string.count('m')
3
4 print(results)
```

- a) Raise an Error
- b) 2
- c) 3
- d) 4

Question 14: Which is the output of the following program?

```
1 even_numbers = [x for x in range(1, 5) if x % 2==0]
2 print(even_numbers)
```

- a) Raise an Error
- b) [1, 2, 3, 4, 5]
- c) [2, 4]
- d) [3, 5]

Question 15: Which is the output of the following program?

```
1 X = [[1, 1],
2       [2, 2]]
3
4 result = [[0,0],
5            [0,0]]
6
7 for i in range(len(X)):
8     for j in range(len(X[0])):
9         result[j][i] = X[i][j]
10
11 for r in result:
12     print(r)
```

- a)
[1, 2]
[1, 2]
- b) [1, 2, 3] [1, 2, 3]
- c) [1, 2, 1, 2]
- d) Raise an Error

Question 16: Which is the output of the following program?

```
1 def my_function(my_data):
2     rs = 0
3     for i in my_data:
4         rs = rs + i
5     return rs
6
7 my_list = [1, 2, 3]
8 print(my_function(my_data = my_list))
```

- a) 5
- b) 6
- c) 8
- d) 9

Question 17: Which is the output of the following program?

```
1 def my_function(my_data):
2     result = []
3     for element in data:
4         if element not in result:
5             result.append(element)
6     return result
7
8 data = [ {'id': 'M12'}, 10, 20, 30]
9 print(my_function(data))
```

- a) [{'id': 'M12'}, 10, 20, 30]
- b) ['id', 'M12', 10, 20, 30]
- c) [10, 20, 30]
- d) Raise an Error

Question 18: Which is the output of the following program?

```
1 def my_function(data, max, min):
2     result = []
3     for i in data:
4         if i < min:
5             result.append(min)
6         elif i > max:
7             result.append(max)
8         else:
9             result.append(i)
10    return result
11
12 my_list = [10, 2, 5, 0, 1]
13 max = 2
14 min = 1
15 print(my_function(max = max, min = min, data = my_list))
```

- a) [10, 2, 5, 1, 1]
- b) [0, 2, 2, 0, 0]
- c) [2, 2, 2, 1, 1]
- d) Raise an Error

Question 19: Which is the output of the following program?

```
1 def my_function(x, y):
2     x.extend(y)
3     return x
4
5 list_num1 = [1, 2]
6 list_num2 = [3, 4]
7 list_num3 = [0, 0]
8
9 my_function(list_num1, my_function(list_num2, list_num3))
```

- a) [1, 2, 3, 4, 0, 0]
- b) [1, 2, [3, 4, 0, 0]]
- c) [[1, 2, 3, 4, 0, 0]]
- d) Raise an Error

Question 20: Which is the output of the following program?

```
1 def my_function(n):
2     x = n[0]
3     for i in n:
4         if i < x:
5             x = i
6     return x
7
8 my_list = [1, 2, 3, -1]
9 my_function(my_list)
```

- a) None
- b) Raise an Error
- c) -1
- d) 3

Question 21: Which is the output of the following program?

```
1 def my_function(n):
2     x = n[0]
3     for i in n:
4         if i > x:
5             x = i
6     return x
7
8 my_list = [1, 9, 9, 0]
9 my_function(my_list)
```

- a) None
- b) Raise an Error
- c) 0
- d) 9

Question 22: Which is the output of the following program?

```
1 def my_function(integers, number = 1):
2     return any([True if i == number else False for i in integers ])
3
4 my_list = [1, 2, 3, 4]
5 my_function(my_list, 2)
```

- a) 1
- b) 4
- c) True
- d) False

Question 23: Which is the output of the following program?

```
1 def my_function(list_nums = [0, 1, 2]):
2     var = 0
3     for i in list_nums:
4         var += i
5     return var/len(list_nums)
6
7 my_function()
```

- a) 1.0
- b) 2.0
- c) Raise an Error
- d) A and C

Question 24: Which is the output of the following program?

```
1 def my_function(signal1, signal2):
2     var = False
3     for s1 in signal1:
4         for s2 in signal2:
5             if s1 == s2:
6                 var = True
7             return var
8 print(my_function([1, 1, 1], [2, 2, 2]))
```

- a) False
- b) True
- c) Raise an Error
- d) None

Question 25: Which is the output of the following program?

```
1 def my_function(signal1, signal2):
2     var = False
3     for s1 in signal1:
4         for s2 in signal2:
5             if s1 == s2:
6                 var = True
7             return var
8 print(my_function([1, 2, 3], [2, 2]))
```

- a) False
- b) True
- c) Raise an Error
- d) None

Question 26: Which is the output of the following program?

```
1 def my_function(data):
2     var = []
3     for i in data:
4         if i%3 == 0:
5             var.append(i)
6     return var
7
8 print(my_function([1, 2, 3, 5, 6]))
```

- a) [3, 6]
- b) [1, 2, 3, 5, 6]
- c) a and d
- d) [5, 1]

Question 27: Which is the output of the following program?

```
1 def my_function(x):
2     for i in range(x):
3         for j in range(x):
4             if i == j:
5                 print("1 ", end=" ")
6             else:
7                 print("0 ", end=" ")
8     print()
```

```
9
10 my_function(2)
```

- a)
 - 1 0
 - 0 1
- b)
 - 0 1
 - 1 0
- c) [1, 0, 0, 1]
- d) None

Question 28: Which is the output of the following program?

```
1 def my_function(y):
2     var = 1
3     while(y > 1):
4         var = var * y
5         y = y - 1
6     return var
7
8 print(my_function(4))
```

- a) 0
- b) 20
- c) 24
- d) Raise an Error

Question 29: Which is the output of the following program?

```
1 def my_function(signal):
2     var = True
3     while var:
4         var = False
5         for i in range(len(signal) - 1):
6             if signal[i] > signal[i + 1]:
7                 signal[i], signal[i + 1] = signal[i + 1], signal[i]
8                 var = True
9
10 my_signal = [1, 2, 3, 0]
11 my_function(my_signal)
12 print(my_signal)
```

- a) [0, 1, 2, 3]
- b) [1, 1, 1, 1]
- c) [3, 2, 1, 0]
- d) Raise an Error

Question 30: Which is the output of the following program?

```
1 def sum_function(num1, num2):
2     '''
3     Sum of two numbers
4     input: num1, num2
5     output: num1+num2
6     '''
7     return num1 + num1
8
9 print(sum_function.__doc__)
```


- a)
Sum of two numbers
input: num1, num2
output: num1+num2
b) 10
c) Raise an Error
d) 100!

Question 31: Which is the output of the following program?

```
1 def my_function(x):  
2     res = ""  
3     for i in x:  
4         res = i + res  
5     return res  
6  
7 x = 'apricot'  
8 print(my_function(x))
```

- a) apricot
b) tocirpa
c) Raise a Error
d) None

Question 32: Which is the output of the following program?

```
1 def function_helper(x):  
2     if x > 0:  
3         return 'T'  
4     else:  
5         return 'N'  
6  
7 def my_function(data):  
8     res = [function_helper(x) for x in data]  
9     return res  
10  
11 data = [2, 3, 5, -1]  
12 print(my_function(data))
```

- a) ['N', 'T', 'T', 'N']
b) ['T', 'N', 'T', 'N']
c) ['T', 'T', 'T', 'N']
d) Raise an Error

Question 33: Which is the output of the following program?

```
1 def function_helper(x, data):  
2     for i in data:  
3         if x == i:  
4             return 0  
5  
6     return 1  
7  
8 def my_function(data):  
9     res = []  
10    for i in data:  
11        if function_helper(i, res):  
12            res.append(i)
```

```
13  
14     return res  
15  
16 lst = [9, 9, 8, 1, 1]  
17 print(my_function(lst))
```

- a) [9, 8, 1]
- b) [1, 1, 1]
- c) [9, 9, 8, 1, 1]
- d) Raise an Error