

SI100B Python Programming Quiz 2

English-only Rule: In this quiz, you may only answer the questions in English.

Answers in other languages (e.g. Chinese) will result in **0 point for the corresponding**

question. Before you start, **please fill your FULL CHINESE name, student ID and**

your ShanghaiTech email address in the related blanks in Question 0 **AND** the

blanks on the top of every page. Failing to do so may result in 0 point of this quiz.

Please **fill your answers in the table at the end of each section.** Answers written in

other places will not be graded. Q1-Q13: 5 points per question; Q14: 20 points;

Q15: 15 points.

Question 0: Please Identify Yourself

Please **fill your FULL CHINESE name, student ID and your ShanghaiTech email**

address in the related blanks below **AND** the blanks on the top of every page. Failing

to do so may result

in 0 point of this quiz.

Your FULL CHINESE name: _____曹有容_____

Your student ID: _____2022533062_____

Your ShanghaiTech email address: caoyr2022@shanghaitech.edu.cn

1	2	3	4	5	6	7	8	9
B	D	C	C	C	B	A	B	B
10	11	12	13		0	2	2	3
D	B	C	C		a 1	b 0	c(1,2,3)	D{'x':1,'y':2,'z':3}

Emmm,'b' could not be zero

1. If there is a `finally:` branch inside the `try:` block,

we can say that:

- A. it won't be executed if no exception is raised
- B. it will always be executed
- C. branches is executed
- D. it will be executed when there is no `else:` branch

2. What will be the output of the following snippet?

```
try:
    raise Exception
except BaseException:
    print("a",end="")
else:
    print("b",end="")
finally:
    print("c")
```

- A. a
- B. ab
- C. bc
- D. ac

3. What will be the output of the following snippet?

```
class A:
    def __init__(self,name):
        self.name = name
a = A("class")
print(a)
```

- A. a number
- B. a string ending with a long hexadecimal number
- C. class
- D. name

4. What will be the output of the following snippet?

```
try:
    raise Exception
except:
    print("c")
except BaseException:
    print("a")
except Exception:
```

```
print("b")
```

- A. it will an cause error
- B. b
- C. c
- D. a

5. What will be the output of the following snippet?

```
class X:
    pass
class Y(X):
    pass
class Z(Y):
    pass
x = X()
z = Z()
print(isinstance(x,Z),isinstance(z,X))
```

- A. False False
- B. True True
- C. True False
- D. False True

6. The following code prints:

```
x = "\\"
print(len(x))
```

- A. 1
- B. the code will cause an error
- C. 2
- D. 3

7. If the class constructor is declared as below, which one of the assignments is valid?

```
class Class:
    def __init__(self):
        pass
```

- A. object = Class(None)
- B. object = Class(1)
- C. object = Class(1,2)
- D. object = Class()

8. What will be the output of the following code?

```

class A:
    A = 1
    def __init__(self, v = 2):
        self.v = v + A.A
        A.A += 1
    def set(self, v):
        self.v += v
        A.A += 1
        return
a = A()
a.set(2)
print(a.v)

```

- A. 7
- B. 5
- C. 1
- D. 3

9. What will be the effect of running the following code?

```

class A:
    def __init__(self, v):
        self._a = v + 1
a = A(0)
print(a._a)

```

- A. it will print 0
- B. it will print 1
- C. it will print 2
- D. it will raise an AttributeError exception

10. What will be the result of executing the following code?

```

class A:
    def __init__(self):
        pass
    def f(self):
        return 1
    def g():
        return self.f()
a = A()
print(a.g())

```

- A. it will print 0
- B. it will print True
- C. it will print 1

D. it will raise an exception

11. What will be the result of executing the following code?

```
class A:
    def a(self):
        print('a')
class B:
    def a(self):
        print('b')
class C(A,B):
    def c(self):
        self.a()
o = C()
o.c()
```

- A. it will print b
- B. it will print a
- C. it will raise an exception
- D. it will print c

12. What will be the result of executing the following code?

```
def a(x):
    def b():
        return x + x
    return b
x = a('x')
y = a("")
print(x() + y())
```

- A. it will print xxxxxx
- B. it will print x
- C. it will print xx
- D. it will print xxxx

13. If s is a stream opened in read mode, the following line

```
q = s.readlines()
```

will assign q as a:

- A. string
- B. dictionary
- C. list
- D. tuple

14. Blank Filling

Read the code below. What gets printed for each call to `print()`?

```
1 x = 0
2 def foo():
3     x = 1
4     def bar():
5         nonlocal x
6         x = 2
7         def baz():
8             global x
9             print(x)
10            x = 3
11            baz()
12            print(x)
13        bar()
14        print(x)
15
16 foo()
17 print(x)
```

Please fill your answers in the following table in the order of execution of every call to `print()`.

1st call	2nd call	3rd call	4th call

**15. Read the following code snippet in the file `bar.py`,
determine what will be printed on your console.**

```

1 class BarError(BaseException):
2     pass
3
4 class BarZeroEncountered(BarError):
5     pass
6
7 def bar(a, b=1, *c, **d):
8     print('a', a)
9     print('b', b)
10    print('c', c)
11    print('d', d)
12    if b == 0:
13        raise BarZeroEncountered('`b` could not be zero.')
14
15 if __name__ == '__main__':
16     try:
17         bar(1, 0, 1, 2, 3, x=1, y=2, z=3)
18     except BarZeroEncountered as e:
19         print("Emmm", e)
20     except BarError as e:
21         print("Hummm", e)
22     except Exception as e:
23         print("Ha", e)

```

Please fill the output of the program if run with `python3 bar.py` in the following table.

Output

End of the Quiz

