# Homework 03

## 1. Which of the following statement is INVALID?

(a) **x = y = z = 1**
(b) **x = ( y = z + 1)**
(c) **x, y = y, x**
(d) **x += y**

## 2. Which of the following expression is INVALID?

(a) **int32**
(b) **40XL**
(c) **self**
(d) **__name__**

## 3. Which of the following sentences are INCORRECT?

**(a) Other than dictionary, all other data types can be "tested" as True or False.**
**(b) Empty string will be evaluated to "False"**
**(c) Empty List string will be evaluated to "False"**
**(d) Any number (integer or float) that has 0 value will be evaluated to "False"**

## 4. Which of the following data types are NOT Python data type?

**(a) char**
**(b) int**
**(c) float**
**(d) list**

## 5. Which of the following sentences are INCORRECT:

**(a) In a string, each character can be see as a string with the length equal to 1**
**(b) string terminates with \0**

(c) string is quoted either with single or double quote characters.
(d) A pair of 3 consecutive double quote can contain a string with new line character or other special characters.

## 6. Which of the following statement will NOT create a dictionary:

(a) dic1 = {}
(b) dict2 = {3: 5}
(c) dict3 = {[1, 2, 3]: "usetc"}
(d) dict4 = {(1, 2, 3): "usetc"}

## 7. Which of the following statement is CORRECT?

(a) min = x if x < y else y
(b) max = x > y ? x : y
(c) if ( x > y ) print x
(d) while True: pass

## 8. Which of the following string is a CORRECT (select all that apply)?

(a) 'abc" ab"
(b) 'abc" ab'
(c) "abc"ab"
(d) "abc\"ab"

## 9. The correct result of "ab" + "c" * 2 is?

(a) abc2
(b) abcabc
(c) abcc
(d) ababcc

## 10. Which of the following statement is invalid?

(a) "New York".encode()
(b) "New York".decode()
(c) "New York".encode().decode()

(d) None of above

## 11. What is the output of the following piece of code?

```
Str1 = "examination is a word, and example is also a word!!!"
str2 = "exam";
print(str1.find(str2, 5))
```

(a) 0
(b) 7
(c) 27
(d) -1

## 12. For the following script:

```
if k<=10 and k >0:
if k >5:
        if k>8:
                x=0
        else:
                X=1
else:
        if k>2:
                x=3
        else:
                x=4
```

If **x = 3**, which one of the following group numbers is the possible value for **k**?

(a) 3, 4, 5
(b) 3, 4
(c) 5, 6, 7
(d) 4, 5

## 13. Which one of the following is NOT Python key word?

(a) raise
(b) with
(c) import

(d) final

## 14. What is the result of calling the following function?

```
def myfun():
    pass
```

(a) return: 0
(b) return: error, exception
(c) return: empty string
(d) return: None

## 15. For the following Python function:

```
def showNnumber(numbers):
    for n in numbers:
        print(n)
```

## which one of the following call will create an error?

(a) ShowNnumber([2, 4, 5])
(b) showNnumber('abcesf')
(c) showNnumber(3.4)
(d) showNnumber([12, 4, 5])

## 16. For the following Python function:

```
def chanageInt(number2):
    number2 = number2+1
    print("changeInt: number2= ",number2)

number1 = 2
chanageInt(number1)
print("number:",number1)
```

## which one of the following result is CORRECT?

(a) changeInt: number2= 3 number: 3

(b) changeInt: number2= 3 number: 2
(c) number: 2 changeInt: number2= 2
(d) number: 2 changeInt: number2= 3

## 17. The following function definition:

```
class Hello():
    pass
```

## which one of the following statement is INCORRECT (select all that apply)?

(a) The instantiated object contains __dir__() method.
(b) The instantiated object contains __hash__() method.
(c) The instantiated object contains __dir__() method, but not __hash__().
(d) The instantiated object contains no its own methods since it did not define any.

## 18. What is the output of the following piece of code?

```
class hello():
    def showInfo(sef):
        print(self.x)
```

## which one of the following statements is CORRECT (select all that apply)?

(a) Class hello cannot be instantiated
(b) Class hello can be instantiated
(c) Class hello can be instantiated, however the call to “showInfo” method will fail
(d) Class hello can be instantiated and the “showInfo” method can be called without error

## 19. For the follow Python class definition:

```
class Hello():
    def __init__(self, name)
        self.name=name

    def showInfo(self)
        print(self.name)
```

**which one of the following code segments will execute without error?**

(a)
```
h = Hello
    h.showInfor()
```

(b)
```
h = Hello()
h.showInfor('John')
```

(c)
```
h = Hello('John')
h.showInfor()
```

(d)
```
h = Hello('admin')
1.showInfor
```

**20. What is the output of the following piece of code if the user enters two lines containing 2 and 4 respectively?**

```
try:
        number = int(input("Please enter the number：  "))
        print("Number:",number)
        print("=======hello======")
except Exception as e:
        # report error
        print("Exception occurred：  ",e)
else:
        print("All good!")
finally:#clean up everything
        print("finally")
print("end")
```

**If user entered "1a", which one of the following result is correct?**

(a)
```
Number: 1 invalid literal for int() with base 10:
finally
    end
```

(b)
```
Exception occurred: invalid literal for int() with base 10:
finally
end
```

(c) =======hello======
Exception occurred: invalid literal for int() with base 10:
finally
End

(d) All above

## 21. What is the correct output of the following snippet?

```
print( 0.1 + 0.2 == 0.3)
```

(a) False
(b) -1
(c) 0
(d) while

## 22. What is the correct output of the following snippet?

```
ls = [3.5, "Python", [10, "LIST"], 3.6]
ls[2][-1][1]
```

(a) I
(b) P
(c) Y
(d) 10

## 23. For str = "python", what is the correct statement to capitalize the "str":

(a) print(str[0].upper()+str[1:])
(b) print(str[1].upper()+str[-1:1])
(c) print(str[0].upper()+str[1:-1])
(d) print(str[0].upper()+str[2:])

## 24. The follow Python dictionary of color coding, select the answer that will display "seashell" color code:

DictColor = {"seashell": 123, "gold": 2342, "pink": 823, "brown":456, "purple":554,"tomato":735}

(a) print(DictColor.keys())
(b) print(DictColor['123'])
(c) print(DictColor.values())
(d) print(DictColor['seashell'])

## 25. Select the correct result for the following Python code snippet:

```
s =["seashell","gold","pink","brown","purple","tomato"]
print(s[1:4:2])
```

(a) ['gold', 'pink', 'brown']
(b) ['gold', 'pink']
(c) ['gold', 'pink', 'brown', 'purple', 'tomato']
(d) ['gold', 'brown']

## 26. Select the correct result for the following Python code snippet:

```
Ls = [[1,2,3],[[4,5],6],[7,8]]
print(len(ls))
```

(a) 3
(b) 4
(c) 8
(d) 1

## 27. What is the output of the following snippet?

```
ls = ["2020", "20.20", "Python"]
ls.append(2020)
ls.append([2020, "2020"])
print(ls)
```

(a) ['2020', '20.20', 'Python', 2020]
(b) ['2020', '20.20', 'Python', 2020, [2020, '2020']]
(c) ['2020', '20.20', 'Python', 2020, ['2020']]

(d) ['2020', '20.20', 'Python', 2020, 2020, '2020']

## 28. What is the output of the following snippet?

```
a = ["a", "b", "c"]
b = a[::-1]
print(b)
```

(a) ['a', 'b', 'c']
(b) 'c', 'b', 'a'
(c) 'a', 'b', 'c'
(d) ['c', 'b', 'a']

## 29. What is the output of the following snippet?

```
dat=['1', '2', '3', '0', '0', '0']
for item in dat:
    if item == '0':
        dat.remove(item)
print(dat)
```

(a) ['1', '2', '3']
(b) ['1', '2', '3', '0', '0']
(c) ['1', '2', '3', '0', '0', '0']
(d) ['1', '2', '3', '0']

## 30. What is the output of the following snippet?

```
s = "the sky is blue"
print(s[-4:], s[:-4])
```

(a) the sky is blue
(b) blue is sky the
(c) sky is blue the
(d) blue the sky is