Python 程序设计基础

期中复习

易翔

注：本章练习中的所有语法规则、代码执行结果等对 python 版本存在依赖关系的内容，均以 python==3.10.9 为准。

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一. 单项选择题　本大题共 15 小题，每题有且仅有一个正确答案。

1. 下列对 python 语言描述正确的是 ＿＿＿＿ .

   A. Dynamic tying, interpretive language

   B. Static tying, interpretive language

   C. Static tying, complied language

   D. Dynamic tying, complied language

2. ＿＿＿＿ **不是**现有的 Python 解释器。

   A. CPython   B. IPython

   C. LPython   D. IronPython

3. ＿＿＿＿ **不是**合法的字符串声明语句.

   A. `s=""`   B. `s="""\"""`

   C. `s="'"`   D. `s='"'`

4. 执行下列语句，对应的输出为 _____ .

```
1  text = "# Whether it is a comment?"
2  print(text)
```

A. *Raise a Syntax error.*

B. # Whether it is a comment?

C. Whether it is a comment?

D. *There is no output.*

5. _____ 不是 Python 的基本数据类型。

A. List

B. Dictionary

C. Number

D. Matrix

6. 执行下列语句，对应的输出为 _____ .

```
1  s = "Python"
2  print(s[:4] + s[4:])
```

A. *Raise a Syntax Error.*

B. Pyton

C. Python

D. Pythn

7. 下列哪个选项不是 python 保留字pass的作用？ _____ .

A. Creating minimal classes.

B. Passing arguments.

C. Keep statement syntactically valid.

D. Used as a place-holder for a function or conditional body.

8. 执行下列语句，对应的输出为 ＿＿＿＿ .

```
1  print(sum(range(5)))
```

A. *Raise a Syntax error.*

B. *Output a* `range` *object.*

C. 6

D. 10

9. 执行下列语句，对应的输出如注释所示。则代码块中留空的部分应填入 ＿＿＿＿ .

```
1   for num in range(2, 8):
2       if num % 2 == 0:
3           print("Found an even number", num)
4           _____
5       print("Found an odd number", num)
6   # Found an even number 2
7   # Found an odd number 3
8   # Found an even number 4
9   # Found an odd number 5
10  # Found an even number 6
11  # Found an odd number 7
```

A. *Nothing, just keep it empty.*

B. `continue`

C. `break`

D. `pass`

10. 执行下列语句，对应的输出为 _____ .

```
1  a = [(1, 'a'), (3, 'b'), (2, 'c'), (4, 'd')]  # define a list
2  a.sort(lambda x: x[1],  reverse=True)
3  print(a)
```

A. *Raise a Type Error.*

B. `[(1, 'a'), (3, 'b'), (2, 'c'), (4, 'd')]`

C. `[(1, 'a'), (2, 'c'), (3, 'b'), (4, 'd')]`

D. `<class 'list'>`

11. 考虑两个集合a，b. 下列集合操作和其描述不对应的是 _____ .

A. `a-b`: elements in b but not in a.

B. `a|b`: elements in a or b or both.

C. `a^b`: elements in a or b but not both.

D. `a&b`: elements in both a and b.

12. _____ 用于获取字典a中值 (value) 的`dict_value()`.

A. `a.value()`   B. `a.values()`

C. `a.item()`   D. `a.items()`

13. _____ 不属于`built-in`方法.

A. `open`   B. `print`   C. `close`   D. `all`

14. 关于 Python 基本类型`list`中的方法，返回值为`None`的有 _____ .

A. `insert`   B. `sort`

C. `remove`   D. *All of them above.*

15. 关于文件读写模式的说法，下列说法正确的是 _____ .

A. `'r+'`: Open the file for both reading and writing text.

B. `'ab'`: Open for writing bytes, appending to the end of file if it exists.

C. `'xt'`: Open for exclusive creation to write text, failing if the file already exists.

D. *All of them above.*

二. **多项选择题**　本大题共 5 小题，每题至少有一个正确答案。

16. 下列语句和题干表述一致的语句有 _____ .

```
1  squares = []
2  for x in range(10):
3      squares.append(x**2)
```

A. `squares = list(map(lambda x: x**2, range(10)))`

B. `squares = [x**2 for x in range(10)]`

C. `squares = [x**2 while x < 10]`

17. 下列字符串声明中，没有语法错误的是 _____ .

```
1  argu = 'This {food} is {adjective}.'.format(food='spam',
2          adjective='absolutely horrible')  # A
3  bugs = 'roaches'  # B
4  anim = 'dog'
5  ctbf = f'My hovercraft is full of {anim}.'  # C
6  import math
7  dmat = 'The value of pi is approximately %5.3f.' % math.pi  # D
```

18. else通常的用法有 _____ .

    A. `if-else` statement

    B. `for-else` statement

    C. `try-except-else` statement

    D. *None of them above.*

19. 执行下列语句，对应的输出为 _____ .

```python
def bool_return():
    try:
        return True
    finally:
        return False
    return None
bool_return()
```

    A. `True`

    B. `False`

    C. `None`

    D. *All of them above are possible.*

    E. *All of them are impossible.*

20. 执行下列语句，对应输出正确的有 _____ .

```
1   a = [−1, 1, 66.25, 333, 333, 1234.5]
2   del a[0]
3   print(a) # A
4   del a[2:4]
5   print(a) # B
6   del a[:]
7   print(a) # C
8   del a
9   print(a) # D
```

A. [1, 66.25, 333, 333, 1234.5]

B. [1, 66.25, 1234.5]

C. []

D. None

三. 简答题　本大题共 3 小题。

21. 请写出下列语句的输出结果。

```
1   matrix = [
2       [1, 2, 3, 4],
3       [5, 6, 7, 8],
4       [9, 10, 11, 12],
5   ]
6   print([[row[i] for row in matrix] for i in range(4)])
```

22. 下列是用于计算并输出素数的小程序，请补全程序以实现其功能。

```
1  for n in range(2, 10):
2      for x in range(2, n):
3          if _____:
4              print(n, 'equals', x, '*', n//x)
5              break
6      _____
7          # loop fell through without finding a factor
8          print(n, 'is a prime number')
```

23. 下列是用于计算复数和的小程序，请补全程序以实现其功能。（注：每行输入包含 2 个整数，格式为 real imag，当输入为单个 −1 时输出结果，也即所有输入复数的和，在其他情况下需要输出 Invalid Input!。保证至少有一个正确输入的复数。）

```
1  c_sum = complex(0, 0)
2
3  while True:
4      ii = input("Please input a complex:")
5      if _____:
6          break
7      try:
8          ii = _____
9          real, imag = _____
10         c_sum += complex(real, imag)
11     except _____:
12         print("Invalid Input!")
13
14 print(c_sum)
```