

# Sample Final Exam

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## 1 Multiple Choice Questions

1. Which of these commands will use command substitution to copy the executable for the program `grep` to the current directory?

- (a) `cp ?(grep) .`
- (b) `cp (which grep) .`
- (c) `cp $(grep) .`
- (d) `cp $(which grep) .`

**Answer:** D. `cp $(which grep) .`

2. In a directory containing many kinds of files, which of these commands will display at most 10 files with the extension `cpp`?

- (a) `ls ?.cpp head—`
- (b) `ls .cpp head—`
- (c) `ls *.cpp head—`
- (d) `ls *.cpp tac—`

**Answer:** C. `ls *.cpp head—`

3. Which of these files would be listed by the command `ls a b c d e f`?

- (a) Six files named `a`, `b`, `c`, `d`, `e`, and `f`.
- (b) A single file named `'a b c d e f g'`, with 5 spaces in its name.
- (c) Two files, one named `'a b c'` and one named `'d e f'`, each with two spaces in its name.
- (d) None of the above.

**Answer:** D. None of the above.

4. Which symbol is used to force the next character to be treated normally?

- (a) `'`

- (b) ?
- (c) \
- (d) /

**Answer:** C. \

5. For the command `ls hi.?` which files would be listed?

- (a) `hi.java`
- (b) `hi.py`
- (c) `hi.`
- (d) `hi.c`

**Answer:** A. `hi.java` and B. `hi.py`

6. Which of these commands will list all of the files whose name contains an opening parenthesis?

- (a) `ls *(`
- (b) `ls *\(\*`
- (c) `ls *\(*`
- (d) `ls (`

**Answer:** B. `ls *\(\*`

7. Which of these files would be listed by the command `ls hello.*?`

- (a) `hello.py`
- (b) `hello.csharp`
- (c) `hello.cpp`
- (d) All of the above.

**Answer:** D. All of the above.

8. What would the effect of the command `ls *.c` be?

- (a) To list all files whose names consist of exactly one character, followed by a period, followed by a `c`.
- (b) To list all files with a `c` extension.
- (c) To list all files whose names do not contain a `c`.
- (d) To list all files whose names contain a `c`.

**Answer:** B. To list all files with a `c` extension.

9. Which of these files would be listed by the command `ls a\ b\ c\ d\ e\ f`, which has a space after each of its backslashes?

- (a) Six files named a, b, c, d, e, and f.
- (b) A single file named 'a b c d e f', with 5 spaces in its name.
- (c) Two files, one named 'a b c' and one named 'd e f', each with two spaces in its name.
- (d) None of the above.

**Answer:** A. Six files named a, b, c, d, e, and f.

10. Which of the following is not a valid way to write a comment in Python?

- (a) `# This is a comment`
- (b) `// This is a comment`
- (c) `'''This is a comment'''`
- (d) `"This is a comment"`

**Answer:** B. `// This is a comment`

11. What will be the output of the following Python code?

```
def my_func(x):  
    if x < 0:  
        return "Negative"  
    elif x == 0:  
        return "Zero"  
    else:  
        return "Positive"  
  
print(my_func(10))
```

- (a) Negative
- (b) Zero
- (c) Positive
- (d) Error: Invalid function call

**Answer:** C. Positive

12. Which of the following data types in Python is mutable?

- (a) int
- (b) str
- (c) list
- (d) tuple

**Answer:** C. list

13. What is the output of the following Python code?

```
my_list = [1, 2, 3, 4, 5]
print(my_list[1:3])
```

- 1, 2
- 2, 3
- 2, 3, 4
- 1, 3

**Answer:** B. [2, 3]

14. Which of the following is the correct syntax to open a file named "data.txt" in Python for reading?

- (a) file = open("data.txt", "r")
- (b) file = open("data.txt", "w")
- (c) file = open("data.txt", "a")
- (d) file = open("data.txt", "x")

**Answer:** A. file = open("data.txt", "r")

15. What is the output of the following Python code?

```
my_dict = {"apple": 1, "banana": 2, "cherry": 3}
del my_dict["banana"]
print(len(my_dict))
```

- (a) 0
- (b) 1
- (c) 2
- (d) 3

**Answer:** C. 2

16. Which of the following is the correct way to define a class named "Person" in Python with a constructor that takes two parameters: "name" and "age"?

- (a) 

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

- (b) 

```
class Person(name, age):  
    def __init__(self, name, age):  
        self.name = name  
        self.age = age
```
- (c) 

```
class Person:  
    def __init__(name, age):  
        self.name = name  
        self.age = age
```
- (d) 

```
class Person:  
    def __init__(self):  
        self.name = name  
        self.age = age
```

**Answer:** A.

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