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
```