CS 2316 Final Exam Practice Questions

Name (print clearly): _____

Signature: _____

GT account username (gtg, gth, msmith3, etc): _____

- Signing signifies that you agree to the terms of the **Academic Honor Code of Georgia Tech**.

- Calculators and cell phones are NOT allowed.

- This is a Python programming test. Where asked for Python statements or expressions you must print them exactly as they would be typed in a Python source file or interactive shell.

Completely fill in the box corresponding to your answer choice for each question.

1.	[A]	[B]	[C]	[D]
2.	[A]	[B]	[C]	[D]
3.	[A]	[B]	[C]	[D]
4.	[A]	[B]	[C]	[D]
5.	[A]	[B]	[C]	[D]
6.	[A]	[B]	[C]	[D]
7.	[A]	[B]	[C]	[D]
8.	[A]	[B]	[C]	[D]
9.	[A]	[B]	[C]	[D]
10.	[A]	[B]	[C]	[D]
11.	[A]	[B]	[C]	[D]
12.	[A]	[B]	[C]	[D]
13.	[A]	[B]	[C]	[D]
14.	[A]	[B]	[C]	[D]
15.	[A]	[B]	[C]	[D]
16.	[A]	[B]	[C]	[D]
17.	[A]	[B]	[C]	[D]
18.	[A]	[B]	[C]	[D]
19.	[A]	[B]	[C]	[D]
20.	[A]	[B]	[C]	[D]
21.	[A]	[B]	[C]	[D]
22.	[A]	[B]	[C]	[D]
23.	[A]	[B]	[C]	[D]
24.	[A]	[B]	[C]	[D]
25.	[A]	[B]	[C]	[D]
26.	[A]	[B]	[C]	[D]
27.	[A]	[B]	[C]	[D]
28.	[A]	[B]	[C]	[D]

Number missed: _____ Final Score: _____

[4] 1. What is printed after the last line in this snippet of Python code (in place of the ???):

```
>>> class = "CS 2316"
???
```

       A. `SyntaxError:  invalid syntax`

       B. `CS 2316`

       C. `defined variable:  class = 'CS 2316'`

       D. Nothing will be printed before displaying the `>>>` prompt.

[4] 2. Given the following contents of the file `say.py`, which has been set as executable:

```
#!/usr/bin/env python3

def say(something, times = 1):
    print(something * times)

if __name__=='__main__':
    say('test', 2)
```

Which of the following would execute this as a script from the command line?

       A. `./say.py`

       B. `python3 say.py`

       C. None of the above.

       D. A and B above.

[4] 3. Given `say.py` from the previous question, what is printed after the last line in this snippet of Python code (in place of the ???):

```
>>> import say
???
```

       A. `'testtest'`

       B. `testtest`

       C. Nothing will be printed before displaying the `>>>` prompt.

[4] 4. What's the value of the expression `"Honey" + "Boo" * 2`

       A. `'HoneyBooHoneyBoo'`

       B. `'HoneyBooBoo'`

       C. `'HoneyBoo2'`

       D. `'HoneyBoo*2'`

[4] 5. Given the following code:

```
capitals = {}
capitals['Murica'] = 'Warshington'
capitals['Germany'] = 'Bonn'
capitals['France'] = 'Paris'
capitals['Engalnd'] = 'London'
capitals['Germany'] = 'Berlin'
```

What is `capitals['Germany']`?

       A. `'Berlin'`

       B. `'Sweden'`

       C. `'Paris'`

       D. `'London'`

Points available: 20 - points lost: ⎯⎯⎯⎯ = points earned: ⎯⎯⎯⎯. Graded by: ⎯⎯⎯⎯

[4] 6. What is `len(set(['A', 'b', 'b', 'a']))`

        A. 2

        B. 3

        C. 4

        D. 0

[4] 7. What's the value of the expression `''.join('h a n d s'.split())`

        A. `['h', 'a', 'n', 'd', 's']`

        B. `'h a n d s'`

        C. `'hands'`

        D. `None`

[4] 8. What is printed after the last line in this snippet of Python code (in place of the ???):

```
>>> greeting = 'Hi ya!'
>>> def greet(greeting):
...     print(greeting)
...
>>> greeting
'Hi ya!'
>>> greet('Hello')
???
```

        A. `None`

        B. `Hi ya!`

        C. `greeting`

        D. `Hello`

[4] 9. If a Python program is invoked on the command line like this:

```
python arguments.py one two three
```

within the Python program, `arguments.py`, what is the value of `sys.argv[1:]` (assuming `sys` has been imported)?

        A. `['arguments.py', 'one', 'two', 'three']`

        B. `'one'`

        C. `['python', arguments.py', 'one', 'two', 'three']`

        D. `['one', 'two', 'three']`

[4] 10. What is printed after the last line in this snippet of Python code (in place of the ???):

```
>>> animal = 'Peacock'
>>> for animal in ['Giraffe', 'Alligator', 'Liger']:
...     print(animal)
...
Giraffe
Alligator
Liger
>>> animal
???
```

        A. `Peacock`

        B. `Alligator`

        C. `Giraffe`

        D. `Liger`

[4] 11. Given the following CSV file contents:

```
one; two; three
'a'; 'b'; 'c'
'd'; 'e'; 'f'
'g'; 'e'; 'h'
```

If you read the CSV file above with a `csv.DictReader` like this:

```
reader = csv.DictReader(csvfile, delimiter=';', quotechar=None)
```

what would it return for the first record?

        A. `['one', 'two', 'three']`

        B. `('a', 'b', 'c')`

        C. `{None: 'one', None: 'two', None: 'three'}`

        D. `{'one': "'a'", 'two': "'b'", 'three': "'c'"}`

[4] 12. Which of the following files is **not** a text file?

        A. JPEG file

        B. XML file

        C. CSV file

        D. Python module (`.py`) file

[4] 13. Say we have an XML file named `people.xml` and the line `import xml.etree.ElementTree as et`, which of the following lines parses the `people.xml` file and assigns the resulting `ElementTree` object to the variable `people`?

        A. `people = xml.ElementTree.read("people.xml")`

        B. `people = xml.ElementTree.parse("people.xml")`

        C. `people = xml.etree.ElementTree.load("people.xml")`

        D. `people = et.parse("people.xml")`

[4] 14. Given the following contents of `people.xml`:

```
<?xml version="1.0"?>
<people>
  <person>
    <firstName>Alan</firstName>
    <lastName>Turing</lastName>
    <profession>Computer Scientist</profession>
  </person>
  <person>
    <firstName>Stephen</firstName>
    <lastName>Hawking</lastName>
    <profession>Physicist</profession>
  </person>
</people>
```

and the correct answer to the previous question, which of the following expressions has the value `'Hawking'`?

        A. `people[1].find('lastName').text`

        B. `people.get('person').get('lastName').text`

        C. `people('person')[2].find('lastName').text`

        D. `people.findall('person')[1].find('lastName').text`

[4] 15. Given the following imports and definitions:

```
import json
json_string = """
[
  {1: 'one', 2: 'two', 3: 'three'},
  {1: 'un', 2: 'deux', 3: 'trois'},
  {1: 'eins', 2: 'zwei', 3: 'drei'}
]
"""
```

what is the value of `json.loads(json_string)[1][2]`?

        A. `'one'`

        B. `'un'`

        C. `'deux'`

        D. `'trois'`

      Points available: 8 - points lost: _____ = points earned: _____. Graded by: _____

[4] 16. Given

```
select * from troopers;
field1 field2
------ ------
Mac    Y
Thorny Y
Rabbit N
Farva  Y
```

and the following Python code that reads this table:

```
conn = sqlite3.connect("troopers.sqlite3")
curs = conn.cursor()
curs.execute("select * from troopers")
results = []
for row in curs.fetchall():
    results.append(row)
```

What is the value of `results[2][1]`?

    A. 'Thorny'

    B. 'Rabbit'

    C. 'Y'

    D. 'N'

[4] 17. Given a table named `author`, which of the following SQL statements will return a table with all the columns for all the rows?

    A. `select all from author`

    B. `get * from author`

    C. `select * from author`

    D. `get all from author`

[4] 18. What does HTML stand for?

    A. Hyper-Threaded Machine Language

    B. High-Throughput Machine Learning

    C. Hyper-Text Markup Language

[4] 19. What does it mean to "render" HTML?

    A. To melt the HTML for lard.

    B. To compile the HTML in to bytecode for execution by the Java Virtual Machine.

    C. To interpret the markup and content and present a textual and graphical representation, typically in a web browser.

Points available: 16 - points lost: _____ = points earned: _____. Graded by: _____

[4] 20. Which elements are required to be in a valid HTML document?

        A. `<html></html>`

        B. `<head></head>`

        C. `<body></body>`

        D. All of the above.

[4] 21. HTML files are plain text files.

        A. True

        B. False

[4] 22. Which of the following URLs specifies a resource to be loaded using the hyper-text transfer protocol?

        A. `ftp://releases.ubuntu.com/releases/14.04`

        B. `http://www.gatech.edu/`

        C. `file:///Users/chris/work/vcs/github/data-python/code/web/hello.html`

        D. None of the above.

[4] 23. Which HTML tag would you use to create a hyperlink to another web page?

        A. List tag, `<li></li>`

        B. Paragraph tag, `<p></p>`

        C. Anchor tag, `<a ...></a>`

        D. Link tag, `<link ...></link>`

[4] 24. What's would `'foobar'.find('o')` return?

        A. `None`

        B. 0

        C. 1

        D. `'o'`

[4] 25. What would `'foobar'.replace('bar', 'fighter')` return?

        A. `'foobarfighter'`

        B. `'foo fighter'`

        C. `'kungfoofighter'`

        D. `'foofighter'`

[4] 26. What would `' landing '.strip()` return?

        A. `'landingstrip'`

        B. `['landing']`

        C. `'landing'`

        D. `['landing', 'strip']`

[4] 27. What would `>>> re.findall(r'a.a', 'abracadabra')` return?

        A. `['aca', 'ada']`

        B. `['aca']`

        C. `'aca'`

        D. `'ada'`

[4] 28. Which of the following strings would match the regular expression `\d{3}-\d{4}`?

        A. `867-5309`

        B. `(867)-5309`

        C. `(867) 5309`

     Points available: 36 - points lost: _____ = points earned: _____. Graded by: _____