

Csci 1523

Fall 2016

**Study Guide - Module 02 Data and
Expressions**

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This study guide contains 5 pages (including this cover page) and 30 problems. Check to see if any pages are missing. Enter all requested information on the top of this page, and put your initials on the top of every page, in case the pages become separated.

You may use your books, notes, calculator or internet sources while completing this study guide.

Please try to answer the sections clearly and PRINT your answers legibly.

Chapter 2 Study Guide

1. Python, the resulting value from a numeric calculation resulting in arithmetic overflow is
 - A. 0.0
 - B. inf
 - C. 9999999999999999
 - D. -1
2. Python, the resulting value from a numeric calculation resulting in arithmetic underflow is:
 - A. 0.0
 - B. inf
 - C. 9999999999999999
 - D. -1
3. In Python, string literals may contain:
 - A. letters
 - B. digits
 - C. blanks
 - D. special characters
 - E. all of the above
4. In Python, an empty string is denoted by:
 - A. a pair of single quotes containing one blank space
 - B. a pair of double quotes containing one blank space
 - C. a pair of matching single or double quotes with no space between them
 - D. all of the above
5. In Python, a string literal can contain
 - A. single quotes, when the string value is delimited by matching double quotes
 - B. double quotes, when the string value is delimited by matching single quotes
 - C. no quotes other than the quotes delimiting the string value
 - D. both (a) and (b)
6. The number of characters that can be defined in the Unicode character encoding scheme is
 - A. over 4 billion characters
 - B. over 4 million characters

- C. about 100,000 characters
- D. about 1,000 characters

7. What is displayed by the following?

```
print(format('-', '-.8 '), 'Hello ')
```

- A. Hello —
- B. — Hello

C. ——— Hello

8. A backslash (`\`) at the end of a line of a Python program is used to

- A. cause the line and the following line to be considered one program line
- B. cause Python to indent the following line appropriately
- C. allow for an open quoted string to be continued on the next line

9. Indicate what is displayed by the following print statement, for $n = 8.096$.

```
print('n = ', format(n, '.1f'))
```

- A. 8.0
- B. 8.09
- C. 8.1
- D. 8.096

10. The `<` and `>` characters are used in format specifiers in Python to left or right justify a string in a specified field width.

11. Indicate what is displayed by the following.

```
1 tax = .08
2 print('Your cost: $', format((1 + tax) * 12.99, '.2f'))
```

ANSWER: Your cost: \$14.03

12. Indicate the purpose of the backslash character (`\`) in the following.

```
1 numsecs_1900_dob 5 ((year_birth 2 1900) * avg_numsecs_year) 1 \
2 ((month_birth 2 1) * avg_numsecs_month) 1 \
3 (day_birth * numsecs_day)
```

ANSWER: joining line 2 to the end of line 1 as a single line

13. What is the value of a number after the code has been executed?

```

1     number = 10
2     number = number + 1

```

- A. 1
- B. 11**
- C. 10
- D. number1

14. What value is assigned to variable n by the following input statement

```

1 n = int(input('Enter your age: '))

```

- A. a numeric integer value**
- B. a string value

15. For the following input statement in which the user enters as input 35, what is displayed by the following

```

1 age = input('Enter your age: ')
2 print("You are", age//10, "decades old")

```

- A. You are 3 decades old
- B. You are 3.5 decades old
- C. TypeError: unsupported operand type(s) for //: 'str' and 'int'**

16. Assume that variables k and num have both been initialized to 10, which of the following is true?

- A. id(k), id(num) and id(10) will each give a different result
- B. id(k), id(num) and id(10) will all give the same result**
- C. id(k) and id(num) will be the same because they are variables, but not id(10) because it is an immutable value
- D. It depends on the order k and num were initialized

17. Which of the following is not a valid variable identifier?

- A. 88Keys**
- B. numcredits
- C. HeSaidSheSaid
- D. Y2K

18. The = operator is used to assign a value to a variable.

19. An identifier is a sequence of one or more characters that must not begin with a digit.

20. An identifier that already has a predefined meaning in Python, and therefore cannot be used as a variable, is known as a keyword.

21. Which of the following contain the correct arithmetic operators in Python?

A. +, -, *, /, //, **

B. +, -, *, /, div,

C. +, -, *, /, //,

~~22. A numeric literal may be an _____ or _____ value.~~

23. A numeric literal may be an integer or floating point value.

24. A calculated result too small to be represented is referred to as arithmetic overflow.

25. The built-in format function of Python can be used to control the display of both numeric and string values.

26. The default character encoding scheme of Python is UTF-8.

27. Which one of the following is not an expression?

A. $4 + (3 * k)$

B. 4

C. $3 * k$

D. *

28. The expression $4 + 3$ is in

A. prefix Notation

B. infix Notation

C. postfix Notation

29. Based on its rules of operator precedence, Python would evaluate the expression below to

1

$4 + 2 * 5 + 3 ** 2$

A. 23

B. 39

C. 29

30. Values can be converted from one data type to another by

A. coercion

B. type conversion

C. type titration

D. both A and B