CS303E Week 3 Worksheet: More Simple Python

Name: _____   EID: _____

Read the questions carefully, and answer each question in the space provided. Use scratch paper to do your work and then copy your answers neatly and legibly onto the test paper. Only answers recorded on the test paper will be graded.

1. (10 points: 1 point each) The following are true/false questions. **Write either T or F in the boxes at the bottom of page 1.** If there's any counterexample, it's false.

    (a) The `input()` function always reads what the user typed in as a string.

    (b) Escape sequences in Python are used to represent special characters, and they always start with the backslash.

    (c) The `ord()` function returns the ASCII code (number) of a character.

    (d) The + and * operators can be used on strings.

    (e) The `format()` function always generates an integer representation of whatever you give it.

    (f) x ** y is different from `pow(x, y)`.

    (g) The `chr()` function returns the character corresponding to a given ASCII code.

    (h) To use functions like `max()` and `min()`, you do not need to import the math module.

    (i) To convert a letter from upper to lower, you can add 32 to its ASCII value.

    (j) The `print()` and `format()` functions are interchangeable in all cases.

a	b	c	d	e	f	g	h	i	j
T	T	T	T	F	F	T	T	T	F

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Questions 2-6 are multiple choice. Each counts 2 points. **Write the letter of the BEST answer in the box on the next page. Please write your answer in UPPERCASE. Each problem has a single answer.**

2. What is a possible result from random()?

   A. 0.5   B. 0   C. 1   D. any of A, B, C

3. Which of the following correctly match the escape sequences for tab, newline, and backslash?

   A. \tt, \new, \\\
   B. \t, \n, \\
   C. \tab, \nl, \\\
   D. \tab, \n, \\

4. What is the difference between the `end` and `sep` parameters in the `print()` function?

   A. The `end` parameter specifies the separator between multiple arguments, and the `sep` parameter specifies the string added at the end of the printed output.

   B. The `end` parameter specifies the separator between multiple arguments, and the `sep` parameter specifies the string added before each argument.

   C. The `end` parameter specifies the separator between multiple arguments, and the `sep` parameter specifies the string added at the beginning of the printed output.

   D. The `end` parameter specifies the string added at the beginning of the printed output, and the `sep` parameter specifies the separator between multiple arguments.

this should say "end of the printed output" oops!

5. If we execute the code `value = input()` and the user enters 25, can we then perform the operation `value2 = value + 5` without an error?

    A. Yes, it will work without any issues.

    B. No, it will result in a runtime error.

    C. Yes, but `value2` will be "255".

    D. No, it will result in a syntax error.

    E. No, it will result in a logic error.

6. What is the result of the following code?

```
s1 = "abc"
s2 = "def"
result = s1 * 3 + s2
print(result)
```

    A. `"abcabcabcdef"`

    B. `"s1s1s1s2"`

    C. `"abc333def"`

    D. Error

2	3	4	5	6
A	B	D	B	A

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The following 5 questions require you to trace the behavior of some Python code and identify the output of that code. For each question, write the output for the code segment on the provided line.

7. (3 points)

```
print(format (421.698, "0.1f"))
```

> 421.7

8. (3 points)

```
print(max(-30, 10, 27, -3) + min(-30, 10, 27, -3)
```

> -3

9. (3 points)

```
letter = 'z'
print(chr(ord(letter) - 5), chr(ord(letter) - 32))
```

> u Z

10. (3 points)

```
x = 5
y = 10
z = 15
print(y, x, z, sep="-", end="!")
```

> 10-5-15!

11. (3 points)

```
print(format(20.2, ">5.0f") + "\\\\")
```

> _ _ _20\\

_ here represents spaces; ">5.0f" tells Python we want our number to be right aligned with the >, take up 5 spaces, and have 0 numbers after the decimal (so 3 empty spaces + the 2 + the 0 is a total of 5 spaces)

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