

CSCI 145 Quiz 2 practice questions on strings, modules, and the call stack

1. Suppose string `s = "DATA STRUCTURES"`. Evaluate the following expressions:

`s[0:3] + s[-1]` _____

`s[5:9] + s[:2]` _____

2. Consider the function `mystery1`:

```
1 def mystery1(word):
2     n = len(word) // 2
3     return word[n]
```

Given the function call `mystery1("PYTHON")`,

a) What is the value of `n` after line 2 is run? _____

b) What value is returned? _____

3. Consider the function `mystery2`:

```
1 def mystery2(s):
2     n = len(s) // 2
3     return s[n:] + s[:n]
```

What is returned by `mystery2("keyboard")`? _____

4. What is the range of possible values for each of the following? Give the smallest and largest possible value.

a) `random.randint(3, 7)` _____

b) `random.random()` _____

c) `random.randint(-5, 5)` _____

5. Fill in the blanks so that `roll_two_dice()` returns the sum of two six-sided dice (each die is a random integer from 1 to 6):

```
1 import random
2 def roll_two_dice():
3     die1 = _____
4     die2 = _____
5     return die1 + die2
```

a) Smallest possible return value: _____

b) Largest possible return value: _____

6. Draw the complete call stack trace for this program: a frame for every function call, in the order created, from the initial call through to the point where `answer` receives its final value. For each frame, fill in its parameter values and, once known, the value it returns to its caller. Use the boxes below, one per frame.

```
def double(n):  
    return n * 2  
  
def combine(a, b):  
    return double(a) + double(b)  
  
answer = combine(3, 4)
```

main

combine

double - *first call*

double - *second call*