Python - Assignment

Part I

List_remove_append

Description: Remove SPSS from input_list=['SAS', 'R', 'PYTHON', 'SPSS'] and add 'SPARK' in its place.

String to List Conversion

Description: Convert a string input_str = 'I love Data Science & Python' to a list by splitting it on '&'. The sample output for this string will be:

```
['I love Data Science ', ' Python']
```

List to String Conversion

Description: Convert a list ['Pythons syntax is easy to learn', 'Pythons syntax is very clear'] to a string using '&'. The sample output of this string will be:

```
Pythons syntax is easy to learn & Pythons syntax is very clear
```

Nested List

Description: Extract Python from a nested list

input_list = [['SAS','R'],['Tableau','SQL'],['Python','Java']]

It's the time to disco

Description: t = ("disco", 12, 4.5)

What is the output of: t[0][2]

String Palindrome

Description: Write a program to check whether a string is a palindrome or not. Print 1 if the string is a palindrome and 0 otherwise.

Input: Any string

Output: 1 if the string is palindrome, 0 otherwise.

Reverse Words

Description: You will be given a sentence in the form of a string. You have to reverse the order of the words in the sentence. Remember not to reverse the individual words, but the order of words. Check the sample input-output for further clarification.

Input: A string, which will consist of a few spaces.

Output: The words in reverse order

String Formatting

Description: Write a program that satisfies below examples

Input 1: caloRie ConsuMed

Output 1: calorie_consumed

Input 2: data science

Output 2: data_science

Input 3: datascience

Output 3: datascience

Multiple Choice Questions

1. How will you extract ‘love’ from the string S = “I love Python”? (More than one option may be correct.).
    a. S[2:5]
    b. S[2:6]
    c. S[3:7]
    d. S[-11:-7]
    e. S[-11:-8]
2. What will the output of 3 * 3 ** 3 be?
    a. 9
    b. 27
    c. 81
    d. 729
3. What will the output be of ((500//7) % 5) ** 3?
    a. 1
    b. 2.91
    c. 71.42
    d. 0
    e. 8
4. If you have a tuple T = (3, 5, 7, 11), what will the output of T.append(9) be?
    a. (3, 5, 7, 9, 11)
    b. (9, 3, 5, 7, 11)
    c. (3, 5, 7, 11, 9)
    d. Error
5. What will the output of the following program be?
    a. Vikas
    b. Mahima
    c. y
    d. A

6. What will the output of the following code be?

```
l = [32, 34, 12, 27, 33]
l.append((14, 19))
print(len(l))
```

   a. 5
   b. 6
   c. 7
   d. The code will throw an error

7. Which of the following statements is incorrect regarding sets in Python?
   a. Sets do not contain duplicate elements
   b. Sets are represented using curly braces {}
   c. Sets are immutable
   d. All of the above

8. What will the output be of the following code?

```
D = {1:['Raj', 22], 2:['Simran', 21], 3:['Rahul', 40]}
for val in D:
    print(val)
```

   a. 1
      2
      3
   b. [‘Raj’, 22]
      [‘Simran’, 21]
      [‘Rahul’, 40]
   c. 1 [‘Raj’, 22]
      2 [‘Simran’, 21]
      3 [‘Rahul’, 40]
   d. ‘Raj’
      ‘Simran’
      ‘Rahul’

9. What will the ‘comprehension equivalent’ be for the following snippet of code?

```
for sentence in paragraph:
    for word in sentence.split():
        single_word_list.append(word)
```

   a. word for sentence in paragraph for word in sentence.split()
   b. [word for sentence in paragraph for word in sentence.split()]
   c. word for word in sentence.split() for sentence in paragraph
   d. [word for word in sentence.split() for sentence in paragraph]

10. What will be the output of this code?

```
print(list(range(10, 1, -1)))
```

   a. [10, 9, 8, 7, 6, 5, 4, 3, 2, 1]
   b. [9, 8, 7, 6, 5, 4, 3, 2]
   c. [9, 8, 7, 6, 5, 4, 3, 2, 1]
   d. [10, 9, 8, 7, 6, 5, 4, 3, 2]