PYTHON ASSIGNMENT 6

1. **What are escape characters, and how do you use them?**

   An escape character lets you use characters that are otherwise impossible to put into a string. An escape character consists of a backslash (\) followed by the character you want to add to the string.

2. **What do the escape characters n and t stand for?**

   In Python strings, the backslash "\" is a special character, also called the "escape" character. It is used in representing certain whitespace characters: "\t" is a tab, "\n" is a newline.

3. **What is the way to include backslash characters in a string?**

   The backslash character \ is used to indicate metacharacters or special forms in regular expressions. The backslash is also used in strings to escape special characters. In other words, it has a special meaning in Python. So, if we need to use the \ character, we'll have to escape it: \\. This will give the string literal meaning to the backslash. However, in order to match inside a regular expression, we should escape the backslashes, effectively writing four back slashes: \\\\.

4. **The string "Howl's Moving Castle" is a correct value. Why the single quote character in the word Howl's is not escaped a problem?**

   The single quote in Howl's is fine because you've used double quotes to mark the beginning and end of the string.

5. **How do you write a string of newlines if you don't want to use the n character?**

   Multiline strings allow you to use newlines in strings without the \n escape character.

6. **What are the values of the given expressions?**

   a. 'Hello, world!'[1] - 'e'

   b. **'Hello, world!'[0:5] -** 'Hello'

   c. **'Hello, world!'[:5] -** 'Hello'

   d. 'Hello, world!'[3:] - 'lo world

7. **What are the values of the following expressions?**

    a. **'Hello'.upper()** - 'HELLO'

    b. 'Hello'.upper().isupper() **-** True

    c. 'Hello'.upper().lower() **-** 'hello'

8. **What are the values of the following expressions?**

    a. **'Remember, remember, the fifth of July.'.split() -**

    [‘Remember,’,’remember,’,’the’,’fifth’,’of’,’july’]

    b. '-'.join('There can only one.'.split()) **-** ’there-can-only-one’

9. **What are the methods to right-justify, left-justify, and centre align the string?**

    To align text and strings in Python, we have 3 specific string handling methods. They are Python center(), Python rjust() and Python ljust(). They return a string that is at least width characters wide, which is constructed by padding the input string with the character fillchar (the default is a space) until the given width is reached on the right, left, or both sides.

    - Python ljust() – If the ‘fillchar’ parameter is not given, this function left aligns the string according to the width specified and fills the leftover space of the line with blank space.
    - Python center() – If the ‘fillchar’ parameter is not given, this function center aligns the string according to the width specified and fills the leftover space of the line with blank space.
    - Python rjust() – If the ‘fillchar’ parameter is not given, this function right aligns the string according to the width specified and fills the remaining space of the line with blank space.

10. **What is the best way to remove whitespace characters from the start or end?**

    - Use the .strip() method to remove whitespace and characters from the beginning and the end of a string.
    - Use the .lstrip() method to remove whitespace and characters only from the beginning of a string.
    - Use the .rstrip() method to remove whitespace and characters only from the end of a string.