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

Answer - Escape characters are special characters that, when preceded by a backslash (\), have a different meaning than their literal value. They're used to represent characters that would otherwise be difficult or impossible to include in strings. To use an escape character, place a backslash (\) before the character you want to escape.

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

Answer -\n stands for newline (creates a line break)

\t stands for horizontal tab (inserts a tab space).

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

Answer - Double backslashes (\\): print("This path is C:\\Windows")

Raw strings (prefix with r): print(r"This path is C:\Windows")

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

Answer - The string "Howl's Moving Castle" is correct because it's enclosed in double quotes. Single quotes within double-quoted strings don't need escaping.

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

Answer - Use triple-quoted strings (either ''' or """): print('''Line 1 Line 2 Line 3''')

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

**'Hello, world!'[1]**

**'Hello, world!'[0:5]**

**'Hello, world!'[:5]**

**'Hello, world!'[3:]**

Answer - 'Hello, world!'[1] = "e" (second character)

'Hello, world!'[0:5] = "Hello" (characters from index 0 to 4)

'Hello, world!'[:5] = "Hello" (same as above, starting from index 0)

'Hello, world!'[3:] = "lo, world!" (characters from index 3 to the end)

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

**'Hello'.upper()**

**'Hello'.upper().isupper()**

**'Hello'.upper().lower()**

Answer - 'Hello'.upper() = "HELLO" (converts to uppercase)

'Hello'.upper().isupper() = True (checks if all characters are uppercase)

'Hello'.upper().lower() = "hello" (converts to lowercase)

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

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

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

Answer - the fifth of July.'.split() = ["Remember,", "remember,", "the", "fifth", "of", "July."] (splits into a list of words)

'-'.join(('There can only one.'.split())) = "There-can-only-one." (joins a list of strings with a hyphen)

**9. What are the methods for right-justifying, left-justifying, and centering a string?**

Answer - rjust(width): Right-justifies within a specified width.

ljust(width): Left-justifies within a specified width.

center(width): Centers within a specified width.

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

Answer - strip(): Removes whitespace from both ends.

lstrip(): Removes whitespace from the left side.

rstrip(): Removes whitespace from the right side.