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

An escape character is a backslash \ followed by the character you want to insert. for example \t , \n ,\r etc.Escape characters are characters that are generally used to perform certain tasks and their usage in code directs the compiler to take a suitable action mapped to that character.

```
In [5]: 1 print('mynameis\nlakhan')

mynameis
lakhan
```

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

\n is a newline; \t is a tab.

```
In [6]: 1 print('ram\tshyam')
    ram shyam

In [7]: 1 print('mynameis\nlakhan')
    mynameis
    lakhan
```

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

```
In [22]: 1 print(r'flow wtih\time')
    flow wtih\time
In [23]: 1 print('flow with\\time')
    flow with\time
```

4. 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?

The single quote in Howl's is fine because we have 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?

6. What are the values of the given expressions?

```
In [37]: 1 'Hello, world!'[1]
Out[37]: 'e'

In [38]: 1 'Hello, world!'[0:5]
Out[38]: 'Hello'

In [39]: 1 'Hello, world!'[:5]
Out[39]: 'Hello'

In [40]: 1 'Hello, world!'[3:]
Out[40]: 'lo, world!'
```

7. What are the values of the following expressions?

'Hello'.upper() 'Hello'.upper().isupper() 'Hello'.upper().lower()

```
In [ ]: 1 'Hello'.upper()
In [41]: 1 'Hello'.upper()
Out[41]: 'HELLO'
In [ ]: 1 'Hello'.upper().isupper()
In [42]: 1 'Hello'.upper().isupper()
Out[42]: True
In [43]: 1 'Hello'.upper().lower()
Out[43]: 'hello'
```

8. What are the values of the following expressions?

'Remember, remember, the fifth of July.'.split() '-'.join('There can only one.'.split())

```
In [47]: 1 'Remember, remember, the fifth of July.'.split()
Out[47]: ['Remember,', 'remember,', 'the', 'fifth', 'of', 'July.']
In [46]: 1 '-'.join('There can only one.'.split() )
Out[46]: 'There-can-only-one.'
```

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

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

The lstrip(),replace() and rstrip() methods remove whitespace from the left and right ends of a string, respectively.

```
In [87]: 1 s
Out[87]: ' flow with time '
In [89]: 1 s.lstrip(' ')
Out[89]: 'flow with time '
In [90]: 1 s.rstrip(' ')
Out[90]: ' flow with time'
In [91]: 1 s.replace(' ','')
Out[91]: 'flowwithtime'
In []: 1
```