

1. What is the purpose of the len() function in Python, and how can it be used with strings?

ANSWER:

Purpose of len() function in Python:

len() is used to find the length of a string (total number of characters).

```
text = "Hello World"
```

```
print(len(text)) # Output: 11 (spaces are also counted)
```

2. How can you concatenate two or more strings in Python, and can you provide an example of string concatenation?

ANSWER:

String Concatenation in Python:

You can concatenate (join) two or more strings using the + operator.

```
first_name = "Yuvraj"
```

```
last_name = "Pandey"
```

```
full_name = first_name + " " + last_name
```

```
print(full_name) # Output: Yuvraj Pandey
```

3. What is string slicing in Python, and how can you extract a portion of a string using this method?

ANSWER:

String Slicing in Python:

Slicing is used to extract a portion (part) of a string using index positions.

Syntax: string[start:end] (end index is not included)

```
text = "Python Programming"
```

```
print(text[0:6]) # Output: Python
```

```
print(text[7:18]) # Output: Programming
```

```
print(text[:6]) # Output: Python (from start)
```

```
print(text[7:]) # Output: Programming (till end)
```

4. How can you change the case of a string in Python, and can you provide examples of both making a string all uppercase and all lowercase?

ANSWER:

```
# Changing the case of a string in Python:  
# Use .upper() to convert a string to uppercase  
# Use .lower() to convert a string to lowercase
```

```
text = "Python Programming"
```

```
print(text.upper()) # Output: PYTHON PROGRAMMING  
print(text.lower()) # Output: python programming
```

5. What does the `split()` method do in Python, and how can you split a string using a specific delimiter?

ANSWER:

```
# split() method in Python:  
# split() is used to break a string into a list of parts.  
# You can split using a specific delimiter (like comma, space, etc.)
```

```
text1 = "Python is easy"  
print(text1.split())  
# Output: ['Python', 'is', 'easy'] (default delimiter is space)
```

```
text2 = "apple,banana,mango"  
print(text2.split(","))  
# Output: ['apple', 'banana', 'mango'] (delimiter is comma)
```