

8. STRING AND STRING MANIPULATION**Choose the best answer (1 Mark)**

1. Which of the following is the output of the following python code?

```
str1="TamilNadu"
print(str1[::-1])
```

(a) Tamilnadu (b) Tmlau (c) udanlimaT **(d) udaNlimaT**

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

```
str1 = "Chennai Schools"
str1[7] = "-"
```

(a) Chennai-Schools (b) Chenna-School (c) Type error (D) Chennai

3. Which of the following operator is used for concatenation?

(a) + (b) & (c) * (d) =

4. Defining strings within triple quotes allows creating:

(a) Single line Strings **(b) Multiline Strings** (c) Double line Strings (d) Multiple Strings

5. Strings in python:

(a) Changeable (b) Mutable **(c) Immutable** (d) flexible

6. Which of the following is the slicing operator ?

(a) { } (b) [] (c) < > (d) ()

7. What is stride?

(a) index value of slide operation
 (b) first argument of slice operation
 (c) second argument of slice operation
(d) third argument of slice operation

8. Which of the following formatting character is used to print exponential notation in upper case?

(a) %e (b) %E (c) %g (d) %n

9. Which of the following is used as placeholders or replacement fields which get replaced along with format() function?

(a) { } (b) < > (c) ++ (d) ^^

10. The subscript of a string may be:

(a) Positive (b) Negative (c) Both (a) and (b) **(d) Either (a) or (b)**

Answer the following questions

(2 marks)

1. What is String?

- String is a data type in python, which is used to handle array of characters.
- String is a sequence of Unicode characters that may be a combination of letters, numbers, or special symbols enclosed within single, double or even triple quotes.
- **Example :**
'Welcome to learning Python'
"Welcome to learning Python"
" "Welcome to learning Python" "

2. Do you modify a string in Python?

- Usually python does not support any modification in its strings. But, it provides a function `replace()` to change all occurrences of a particular character in a string.
- **General formate of replace function:**
`replace("char1", "char2")`
The replace function replaces all occurrences of char1 with char2.
- **Example :**
>>> `str1="How are you"`
>>> `print (str1)`
How are you
>>> `print (str1.replace("o", "e"))`
Hew are yeu

3. How will you delete a string in Python?

- Python will not allow deleting a particular character in a string. Whereas you can remove entire string variable using **del** command.
- >>> `str1="How about you"`
>>> `print (str1)`
How about you
>>> `del str1`

```
>>> print (str1)
```

Traceback (most recent call last):

File "<pyshell#14>", line 1, in <module>

```
print (str1)
```

NameError: name 'str1' is not defined

4. What will be the output of the following python code?

```
str1 = "School"
print(str1*3)
```

Output : School School School

5. What is slicing?

- Slice is a substring of a main string. A substring can be taken from the original string by using [] operator and index or subscript values.
- Thus, [] is also known as slicing operator. Using slice operator, you have to slice one or more substrings from a main string.

Part - III**Answer the following questions****(3 marks)****1. Write a Python program to display the given pattern.**

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Answer :

```
str1 = input("Enter string")
str2 = ''
index = len(str1)
for i in str1:
str2 = str1[0 : index]
index -- = 1
print(str2)
```

2. Write a short about the followings with suitable example:**(a) capitalize() (b) swapcase()**

Syntax	Description	Example
(a) capitalize()	Used to capitalize the first Character of the string	>>> city="chennai" >>> print(city. capitalize()) Chennai
(b) swapcase()	It will change case of every character to its opposite case viceversa.	>>> str1="tAmiL NaDu" >>> print(str1. swapcase()) TaMIl nAdU

3. What will be the output of the given python program?

```
str1 = "welcome"
str2 = "to school"
str3 = str1[:2]+str2[len(str2)-2:]
print(str3)
```

Ans. weol

4. What is the use of format()? Give an example.

- The format() function used with strings is very versatile and powerful function used for formatting strings.
- The curly braces { } are used as placeholders or replacement fields which get replaced along with format() function.

• **Example :**

```
num1=int (input("Number 1: "))
num2=int (input("Number 2: "))
print ("The sum of {} and {} is {}".format(num1,num2,(num1+num2)))
```

Output :

```
Number 1: 34
Number 2: 54
The sum of 34 and 54 is 88
```

5. Write a note about count() function in python.

Syntax	Description	Example
count (str, beg,end)	Returns the number of substrings occurs within the given range. Remember that substring may be a single character. Range (beg and end) arguments are optional. If it is not given, python searched in whole string. Search is case sensitive.	<pre>>>> str1="Raja Raja Chozhan" >>> print(str1.count('Raja')) 2 >>> print(str1.count('r')) 0 >>> print(str1.count('R')) 2 >>> print(str1.count('a')) 5 >>> print(str1.count('a',0,5)) 2 >>> print(str1.count('a',11)) 1</pre>

Part - IV**Answer the following questions****(5 marks)****1. Explain about string operators in python with suitable example.**

String Operators : Python provides the following operators for string operations. These operators are useful to manipulate string.

- **Concatenation (+) :** Joining of two or more strings is called as Concatenation. The plus (+) operator is used to concatenate strings in python.

• **Example :**

```
>>> "welcome" + "Python"
'welcomePython'
```

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✓ **Append (+ =) :** Adding more strings at the end of an existing string is known as append. The operator += is used to append a new string with an existing string.

✓ **Example :**

```
>>> str1="Welcome to "
>>> str1+="Learn Python"
>>> print (str1)
```

Welcome to Learn Python

➤ **Repeating (*) :** The multiplication operator (*) is used to display a string in multiple number of times.

➤ **Example :**

```
>>> str1="Welcome "
>>> print (str1*4)
```

Welcome Welcome Welcome Welcome

*****ALL THE BEST*****

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9TH Unit Coming Soon....