Assignment: STRING

1. What is the index of the last element of a string?
2. If the length of the string is 10 then what would be the positive index of last element?
3. Index value of a string can be in float. (T/F)
4. WAP to display each character of the following string in separate line using 'for' loop.
str1=welcome to my blog
5. Index value of string "str1" varies from 0 to len(str1)-1 .(T/F)
6. WAP to count the length of string without using inbuilt function.
7.To Calculate The Length Of A String
str1='COMPUTER SCIENCE OR INFORMATICS PRACTICES'
8. To Compute Sum Of Digits Of A Given String
str1='JK23 KSD 315 SD990'
9.To Capitalize First And Last Letters Of Each Word Of A Given String
10.To Lowercase First N Characters In A String
11.To Convert A String In A List
12.To Reverse A String
13.To Count Occurrences Of A Substring In A String
14.To Check String Is Palindrome Or Not
15.Is there any difference in 'a' or "a" in python?
16. Is there any difference between 1 or '1' in python?
17. Python treats single quotes same as double quotes.(T/F)
18. A string with zero character is called __string.
19. Python does not support a character type.(T/F)
(a) "Hello World".upper().lower()
(b) "Hello World".lower().upper()
(c) "Hello World".find("Wor",1,6)
(d) "Hello World".find("Wor")
(e) "Hello World".find("wor")
(f) "Hello World".isalpha()
(g) "Hello World".isalnum()
(h) "Hello World".isdigit()
(i) "123FGH".isdigit()

Q20. Write the output of the following code:

(a)
```
str1 = "Welcome to my blog"
str2 = "Welcome to my \n Blog"
print(str1)
print(str2)
```

(b)
```
str1 = "Welcome \tto my Blog"
str2 = "Welcome to\n my \tBlog"
print(str1)
print(str2)
```

(c)
```
str1 = """ Welcome to my
          blog.
          This is for
          Class X"""
          print(str1)
```

d)
```
str="hello"
print(str[:3])
```

e)
```
str='My Blog'
a=' '
for i in range(len(str)):
    a+=str[i]
print(a)
```

f)
```
str='MyBLog'
a=' '
for i in range(len(str)):
        print(i*str[i])
```

g)
```
s='My'
s1='Blog'
s2=s[:1]+s1[len(s1)-1:]
print(s2)
```

h) print("My"+'Blog' * 2)

j) print("My" *3 + "Blog" +'7')

k)
```
for i in range(2,7,2):
    print(i * '2')
```

L)
```
for i in range(3,12, 2):
   print("a".upper())
```

M)

Out of the following operators, which ones can be used with strings?

=, -, *, /, //, %, >, <>, in, not in, <=

Q21From the string S = "CARPE DIEM". Which ranges return "DIE" and "CAR"?

Q22 Given a string S = "CARPE DIEM". If n is length/2 then what would following return?

(a) S[:n] (b) S[n:] (c) S[n:n] (d) S[1:n] (e) S[n:length-1]

Q23 Suggest appropriate functions for the following tasks –

a. **To check whether the string contains digits.**
b. **To find the occurrence a string within another string.**
c. **To convert the first letter of a string to upper case.**
d. **To convert all the letters of a string to upper case.**
e. **To check whether all the letters of the string are in capital letters.**
f. **to remove all the white spaces from the beginning of a string.**

Q1. Write a code to create empty string 'str1'
Q2. What do you mean by traversing a string?
Q3. What is the index value of first element of a string?
Q4. What is the index value of last element of a string?
Q5. If the length of the string is 10 then what would be the positive index value of last element?
Q6. If the length of string is 9, what would be the index value of middle element? 9
Q7. Index value of a string can be in float. (T/F)
Q8. What type of error is returned by following statement, if the length of string 'str1' is 10.

```
print(str1[13])
```

Q9. Write the output of the following:

```
str1 = "Welcome to my Blog"
a. print(str1[-1])
b. print(str1[9])
```

Q10. Write a code to assign a string "Hello World"' to a string variable named "str1".

#----------

Q1. Write a program to display each character of the following string in separate line using 'for' loop.

```
str1 = Welcome to My Blog
```

Q2. Write a program to display each character of the following string in separate line using 'while' loop.

```
str1 = Welcome to My Blog
```

Q3. Index value of string "str1" varies from 0 to len(str1)-1. (T/F) 10 0 9
Q4. Write the positive and negative index value of 'B' in the following string.

```
"Welcome to my Blog"
```

Q5. What do you mean by concatenation of string?
Q6. Which of the following is an example of concatenation?

a. 6 + 3
b. '6' + '3'
c. 'a' + 'b' + 'c'

Q7. Write a program to count the length of string without using inbuilt function.
Q8. Write the output of the following statement.
str1 = "Welcome to my Blog"
for i in str1:
  print(i)
  print(i, end =' ')
  print(i, end = '#')
Q9. Write the output of the following statement.
str1 = "Amit"
for i in str1:
  print(i)
  print(i, end =' ')
Q10. Write the output of the following statement.
str1 = "Welcome to my Blog"
for i in str1:
  print(i)
  print(i, end =' ')
print(i, end = '#')
	Q1. Write the output of the following
	>>>"string" in "substring"
	>>>"string" not in "substring"
	Q2. Write the output of the following:
	>>>'tie' == 'ties'
	>>>"Amit" != "Amitabh"
	>>>"amit" > "Amitabh"
	Q3. Write the full form of ASCII
	Q4. Write the ASCII value of 'A' and 'a'.
	Q5. String Slicing is used to fetch substring from a string. (T/F)
	Q6. Write the output of the following.
	S = "Welcome to my Blog"
	print(S[2 : 3])
	print(S[2 : 10])
	print(S[-2 :])
	print(S[-10 : -2 : 2])
	Q7. Strings are mutable.(T/F)
	Q8. Write the output of the following
	>>>str1 = "Anita"
	>>>str1[1] = 'm'
	>>>print(str1)

	Q9. Name any two built in function associated with string. Q10. Which functions of string return the numerical value?

#---
Q1. What is the value returned by find() function for an unsuccessful search?
Q2. isalpha() returns True if the string contains only alphabet.(T/F)
Q3. Write the output of the following
str1 = "Amit"
str2 = "My Blog"
str3 = "#blog"
str4 = "My 1st Blog"
print(str1.isalpha())
print(str2.isalpha())
print(str3.isalpha())
print(str4.isalpha())
Specify the reason if any of the above print statement return False.
Q4. Write a program to accept string and display total number of alphabets.
Q5. Write a program to accept a string and display the sum of the digits, if any present in string.

for example:

input string : My position is 1st and my friend come on 4th

output : 5

Ans:

```
str1 = input("Enter any string")

n=0

s=0

for i in str1:

   if i.isdigit() == True:

      n = int(i)

      s = s+n

print(sum of the diit is   ", s)
```

Q6. Write the output of the following:

```
>>>a = 123

>>>b = "123"
```

```
>>>b.isdigit()

>>>a.isdigit()
```

Ans

True

Error

Q7. What is the difference between lower() and islower()?

Ans. lower() function converts the given string in lowercase while islower() check whether given string is in lowercase r not.

Q8. Write a program to accept a string and convert it into lowercase.

Ans.

```
str1 = input("Enter any string")

print(str1.lower())
```

Q9. Write a program to count the number of lowercase and uppercase character in a

string accepted from the user.

Ans.

```
str1 = input("Enter any string")

for i in str1:

  if i.islower()==True:

      l = l+1

  if i.isupper() == True:

      u = u+1

print("Total uppercase characters are--",u)

print("Total lowercase characters are--",l)
```

Q10. Write the output of the following:

```
>>>s = "My blog"

>>>s.upper()

>>>s.lower()

>>>s.islower()
```

>>>s.isupper()

>>>s.isalpha()

>>>s.isdigit()

Ans.

MY BLOG

my blog

False

False

False

False

#---

Q1. What is lstrip () function in String?

Ans. lstrip() function simply remove the spaces or specified characters from the left of the string.

Q2. Write the output of the following.(# represents the spaces)

>>>str1 = "Welcome to my Blog"

>>>print(len(str1))

>>>str2 = "###Welcome to my Blog"

>>>print(len(str2))

>>>print(len(str2.lstrip()))

Ans.

18

21

18

Q3. Write the output of the following.(# represents the spaces)

>>>str2 = "###Welcome to my Blog####"

>>>print(len(str2))

>>>print(len(str2.strip()))

>>>print(len(str2.rstrip()))

Ans.

25

18

21

Q4. Write the output of the following.

```
>>>str1 = "Welcome to my Blog"
>>>print(str1.rstrip('og'))
>>>print(str1.lstrip('We'))
>>>print(str1.strip('Welog))
```

Ans.

Welcome to my Bl

lcome to my Blog

lcome to my B

Q5. Write the output of the following.

```
>>>print(len(str1.rstrip('og')))
>>>print(len(str1.lstrip('We')))
>>>print(len(str1.strip('Welog)))
```

Ans

16

16

13

Q6. isspace() returns True if the string contain only spaces (T/F)

Ans. True

Q7. Write the output of the following

```
>>>s1 = "   "
>>>s2 = "   Amit"
>>>print(s1.isspace())
>>>print(s2.isspace())
```

Ans.

True

False

Q8. Define the following function with example

a. istitle()

b.swapcase()

Ans.

istitle() - This function returns True if the string is in titlecase only otherwise returns False.

for example

```
s = "Welcome To My Blog"

print(s.istitle())
```

The above code returns True as the string 's' is in Title case.

swapcase() - This function converts all the lowercase characters to uppercase and vice versa

for example

```
s = "Welcome To My Blog"

print(s.swapcase())
```

Output: wELCOME tO mY bLOG

#----------

Q1. Write the output of the following:

```
str1 = "Welcome to my Blog"

a. print(len(str1))

b. print(capitalize(str1))
```

Ans.

a. 18

b. Welcome to my blog

Q2. Write the output of the following.

```
>>>str1 = "Welcome to my Blog"
>>>x = str1.split()
>>>print(x)
```

Ans.

```
['welcome', 'to', 'my', 'blog']
```

Q3. Write a program to accept a string and display each word and it's length.

Ans.

```
str1 = input("Enter any String")
x = str1.split()
for i in x:
    print(i, "------", len(i))
```

Q4. Write a program to accept a string and display string with capital letter of each word.

for example, if input string is : welcome to my blog

output string : Welcome To My Blog

Ans.

```
str1 = input("Enter any String")
x = str1.split()
str2 = " "
for i in x:
    str2 = str2 + " " + i.capitalize()
print(str2)
```

Q5. What is split() function in String?

Ans. split() function split or break the string into multiple substring at specified separator.

Q6. Write the output of the following:

```
a = "Mummy?Papa?Brother?Sister?Uncle"
print(a.split())
print(a.split('?')
print(a.split('?',1)
```

```
print(a.split('?',3)

print(a.split('?',10)

print(a.split('?',-1)
```

Ans.

```
['Mummy?Papa?Brother?Sister?Uncle']

['Mummy', 'Papa', 'Brother', 'Sister', 'Uncle']

['Mummy', 'Papa?Brother?Sister?Uncle']

['Mummy', 'Papa', 'Brother', 'Sister?Uncle']

['Mummy', 'Papa', 'Brother', 'Sister', 'Uncle']

['Mummy', 'Papa', 'Brother', 'Sister', 'Uncle']
```

Q7. Write a program to replace all the word 'do' with 'done' in the following string.

```
str1 = "I do you do and we all will do"
```

Ans.

```
str1 = "I do you do and we all will do"

print(str1.replace('do','done'))
```

Q8. Write the output of the following.

```
str1 = "I went to Auli"

print(str1.replace("Auli", "Leh"))

print(str1)
```

Ans.

```
I went to Leh

I went to Auli
```

Q9. What is the purpose of find() function in string?

Ans. find() function will return the first occurrence of substring in main string.

Q10. Write the output of the following:

```
str1 = "Welcome to my Blog"

print(str1.find('o'))

print(str1.find('o',3))
```

```
print(str1.find('o',7))

print(str1.find('o',7,10))
```

Ans.

4

4

9

9

#----------

Q1. Accept a string and display in reverse order.

Ans.

```
str = input("Enter any String")

print(str[: : -1])
```

Q2. Write a program to accept a string and display 20 times.

Ans.

```
str = input("Enter any String")

for i in range(20):

   print(str)
```

Q3. Write a program to accept a string in python and display the entire string in upper case.

Ans.

```
str = input("Enter any String")

print(str.upper())
```

Q4. Write a program to accept a string and display last three characters of the string.

Ans.

```
str = input("Enter any String")

print(str[-3 : : 1])
```

Q5. Write a program to accept a string in python and display the entire string in lower case.

Ans.

```
str = input("Enter any String")
```

```
print(str.lower())
```

Q6. Accept a string and display the entire string with first and last character in upper case.

Ans.

```
str = input("Enter any String")

print(str[0].upper() + str[1:-1] + str[-1].upper())
```

Q7. Write a program to accept a string and display first three characters of the string.

Ans.

```
str = input("Enter any String")

print(str[0:3])
```

Q8. Write a function in python which accept a string as argument and display total number of vowels.

Ans.

```
def vowcount(str):
    v=0
    for i in range(len(str)):
        if str[i] in "aeiouAEIOU":
            v = v +1
    print("Total number of vowels are ", v)
```

Q9. Write a function in python which accept a string as argument and display total number of lower case characters.

Q10. Write a function in python which accept a string as argument and display total number of digits.