

# ASSIGNMENT – 2

Q1. Write python code to repeat the following string 9 times using string operator '\*'. i.)Python  
ii.)Mathematics

```
>>> A="Python"
```

```
>>> B="Mathematics"
```

```
>>> print(A*9)
```

```
PythonPythonPythonPythonPythonPythonPythonPythonPython
```

```
>>> print(B*9)
```

```
MathematicsMathematicsMathematicsMathematicsMathematicsMathematicsMathematicsMathematicsMathematicsMathematics
```

Q2. Use python code to construct string operation '+' below string. i.)string1=Hello,string2=World! ii.)  
string1=Good,string2=Morning.

```
>>> string1="Hello"
```

```
>>> string2="World!"
```

```
>>> print(string1+string2)
```

```
HelloWorld!
```

```
>>> string1="Good"
```

```
>>> string2="Morning"
```

```
>>> print(string1+string2)
```

```
GoodMorning
```

Q3. Repeat the following string 11 times using the string operator '\*' on python. i.)LATEX ii.)MATLAB

```
>>> A="LATEX"
```

```
>>> B="MATLAB"
```

```
>>> print(A*11)
```

```
LATEXLATEXLATEXLATEXLATEXLATEXLATEXLATEXLATEXLATEXLATEX
```

```
>>> print(B*11)
```

```
MATLABMATLABMATLABMATLABMATLABMATLABMATLABMATLABMATLABMATLABMATLAB
```

Q4. Write python program which deals with concatenation and repetition of lists. LIST1=[15,20,25,30,35,40]  
LIST2=[7,14,21,28,35,42] i.)Find List1+List2 ii.)Find 9\*List1 iii.)Find 7\*List2

```
>>> List1=[15,20,25,30,35,40]
```

```
>>> List2=[7,14,21,28,35,42]
```

```
>>> List1+List2
```

```
[15, 20, 25, 30, 35, 40, 7, 14, 21, 28, 35, 42]
```

```
>>> 9*List1
```

```
[15, 20, 25, 30, 35, 40, 15, 20, 25, 30, 35, 40, 15, 20, 25, 30, 35, 40, 15, 20, 25, 30, 35, 40, 15, 20, 25, 30, 35, 40, 15, 20, 25, 30, 35, 40, 15, 20, 25, 30, 35, 40]
```

```
>>> 7*List2
```

```
[7, 14, 21, 28, 35, 42, 7, 14, 21, 28, 35, 42, 7, 14, 21, 28, 35, 42, 7, 14, 21, 28, 35, 42, 7, 14, 21, 28, 35, 42, 7, 14, 21, 28, 35, 42, 7, 14, 21, 28, 35, 42]
```

Q5. Using python code sort the tuple in ascending and decending order 5,-3,0,1,6,-6,2.

```
>>> tuple1=(5,-3,0,1,6,-6,2)
```

```
>>> tuple(sorted(list(tuple1)))
```

```
(-6, -3, 0, 1, 2, 5, 6)
```

```
>>> tuple(sorted(tuple1,reverse=True))
```

```
(6, 5, 2, 1, 0, -3, -6)
```

Q6. Write python code to sort tuple in ascending order(49,17,23,54,36,72)

```
>>> tuple1=(49,17,23,54,36,72)
```

```
>>> tuple(sorted(list(tuple1)))
```

```
(17, 23, 36, 49, 54, 72)
```

Q7. Evaluate following expression on python. i.)M=[1,2,3,4].Find length M ii.)L="XYZ"+"pqr",Find L.

iii.)s='Make In India',Find (s[:7]&s[:9]).

```
>>> M=[1,2,3,4]
```

```
>>> print(len(M))
```

```
4
```

```
>>> L1="XYZ"
```

```
>>> L2="pqr"
```

```
>>> L=L1+L2
```

```
>>> print(L)
```

```
XYZpqr
```

```
>>> s='Make In India'
```

```
>>> s[:7]
```

```
'Make In'
```

```
>>> s[:9]
```

```
'Make In I'
```

Q8. Write python code to list name and roll number of 5 students in B.Sc.(computer science).

```
>>>
```

```
S=[{"name":"Raj","roll_no":1}, {"name":"shaam","roll_no":2}, {"name":"Rohit","roll_no":3}, {"name":"karan","roll_no":4}, {"name":"tejas","roll_no":5}]
```

```
>>> for student in S:  
...     print(f"Name:{student['name']},roll number:{student['roll_no']}")  
...
```

Name : Raj, roll number : 1

Name : Shaam, roll number : 2

Name : Rohit, roll number : 3

Name : Karan, roll number : 4

Name : Tejas, roll number : 5

Q9. Repeat the following string 7 times using the string operator '\*' on python. i.)Complex number ii.)Real number.

```
>>> A="Complex number"
```

```
>>> B="Real number"
```

```
>>> print(A)
```

Complex number

```
>>> print(B)
```

Real number

Q10. The following two statements using the '+' string operation on python. i.)string1=India Won, string2=World Cup ii.)string1=God, string2=is Great

```
>>> String1="India Won"
```

```
>>> String2="World Cup"
```

```
>>> print(String1+String2)
```

India WonWorld Cup

```
>>> String1="God"
```

```
>>> String2="is Great"
```

```
>>> print(String1+String2)
```

```
>>> String1="God"
```

```
>>> String2=" is Great"
```

```
>>> print(String1+String2)
```

God is Great

Q11. Use python code to generate second,fifth,eight characters from string 'MATHEMATICS'.

```
>>> s="MATHEMATICS"
```

```
>>> print(s[:2])
```

MA

```
>>> print(s[:5])
```

```
MATHE
```

```
>>> print(s[:8])
```

```
MATHEMAT
```

Q12. Use python code to find minimum value from the given numbers 16,3,5,48,2,4,5,6,78,12,5,6,24.

```
>>> A=( 16,3,5,48,2,4,5,6,78,12,5,6,24)
```

```
>>> min(A)
```

```
2
```

Q13. Write a python program using tuple that swap the values of two variables.

```
>>> def swap(x,y):
```

```
...  x,y=y,x
```

```
...  return x,y
```

```
...
```

```
>>> x=4
```

```
>>> y=5
```

```
>>> swap(x,y)
```

```
(5, 4)
```

Q14. write python code to reverse the strings S=[1,2,3,4,5,6,7,8,9].

```
>>> tuple1=[1,2,3,4,5,6,7,8,9]
```

```
>>> tuple=(sorted(tuple1, reverse=True))
```

```
>>> print(tuple)
```

```
[9, 8, 7, 6, 5, 4, 3, 2, 1]
```

Q15. Write python code to display tuple 'I am Indian' and the second letter in this tuple.

```
>>> t1=['I', ' ', 'a', 'm', ' ', ' ', 'I', 'n', 'd', 'i', 'a', 'n']
```

```
>>> print("tuple:",''.join(t1))
```

```
tuple: I am Indian
```

```
>>> second_letter=t1[1]
```

```
>>> print("second letter:",second_letter)
```

```
second letter:
```

Q16. Write python code to find the tuple 'MATHEMATICS' from range 3 to 9.

```
>>> tuple=("MATHEMATICS")
```

```
>>> print(tuple)
```

```
MATHEMATICS
```

```
>>> tuple[3:9]
```

```
'HEMATI'
```

Q17. Write python code to list name and birth date of 5 students in your class.

```
>>>
```

```
S=[{"name":"Raj","birth_date":1/9/2004},{"name":"shaam","birth_date":2/8/2003},{"name":"Rohit","birth_date":3/7/2004},{"name":"karan","birth_date":4/6/2004},{"name":"tejas","birth_date":5/4/2003}]
```

```
>>> for student in S:
```

```
...     print(f"Name:{student['name']},birth date:{student['birth_date']}")
```

```
...
```

```
Name : Raj , birth date:5.5444666223109334e-05
```

```
Name : shaam , birth date:0.00012481278082875687
```

```
Name : Rohit , birth date:0.000213857998289136
```

```
Name : karan , birth date:0.00033266799733865603
```

```
Name : tejas , birth date:0.0006240639041437844
```

Q18. Write python to generate modulus value of -10,10,-1,1,0.

```
>>> numbers=[-10,10,-1,1,0]
```

```
>>> modulus_values=[abs(number)for number in numbers]
```

```
>>> for i in range(len(numbers)):
```

```
...     print(f"Modulus of{numbers[i]}:{modulus_values[i]}")
```

```
...
```

```
Modulus of-10:10
```

```
Modulus of10:10
```

```
Modulus of-1:1
```

```
Modulus of1:1
```

```
Modulus of0:0
```

Q19. Using python code to list Name of 5 teacher in your college with their subject.

```
>>>
```

```
S=[{"teacher_name":"Raj","subject":"HISTORY"},{"teacher_name":"shaam","subject":"COMPUTER"},{"teacher_name":"Rohit","subject":"SCIENCE"},{"teacher_name":"karan","subject":"MARATHI"},{"teacher_name":"Tejas","subject":"MATHS"}]
```

```
>>> for teacher in S:
```

```
...     print(f"Teacher Name:{teacher['teacher_name']},subject:{teacher['subject']}")
```

```
...
```

```
Teacher Name : Raj ,s ubject : HISTORY
```

```
Teacher Name : shaam , subject : COMPUTER
```

Teacher Name : Rohit , subject : SCIENCE

Teacher Name : karan , subject : MARATHI

Teacher Name : Tejas , subject : MATHS