

LAB ASSIGNMENT

On

BCA-659

Python Programming Lab



**COLLEGE OF COMPUTING SCIENCES AND
INFORMATION TECHNOLOGY**

TMU, MORADABAD

SESSION: JAN 2023 – JUNE 2023

SUBMITTED TO:

Ms. Anu Sharma

SUBMITTED BY:

STUDENT NAME:

ENROLLMENT NO:

COURSE:

SECTION

Assignment-1: Python Programming

S. No.	Program	Page No	Date	Sign	Remark
1.	WAP to add two numbers.				
2.	WAP to find m to the power n. [Hint: Use ** for exponentiation]				
3.	Write a Python Program for Simple Interest.				
4.	WAP to find area of circle. [Hint: Use pi function of math library]				
5.	WAP to find perimeter of a Rectangle				
6.	WAP to convert °C to °F and °F to °C.				
7.	WAP to find distance between two points.				
8.	Python Program to Swap Two Variables				
9.	Write a program to find whether a given number is even or not.				
10.	Write a program to find greatest of three numbers				
11.	Write a program to find whether a given number is palindrome or not				
12.	Write a Python Program to check Armstrong Number				
13.	Python Program to Find the Factorial of a Number				
14.	Write a Python program to check whether a number is Prime or not				
15.	Write a Python program to construct the following pattern, using a nested for loop.				

	<pre> * * * * * * * * * * * * * * *</pre>				
16.	To write a program to calculate Sum & average of N numbers using all loops.				
17.	To write a program to generate Fibonacci series up to n.				

Assignment 2: Python Programming with tuple, list, dictionary and string

S. No.	Program	Page No	Date	Sign	Remark
1	Write a program to sum all the elements of a list.				
2	Create three lists of numbers, their squares and cubes				
3	Write a python program to perform the following <ol style="list-style-type: none">Reverse the tupleAccess value 20 from the tupleCreate a tuple with single item 50Swap two tuples in Python				
4	Write a python program to perform the following <ol style="list-style-type: none">Copy specific elements from one tuple to a new tupleCounts the number of occurrences of item 50 from a tupleCheck if all items in the tuple are the same				
5	To write a program to demonstrate the tuple.				
6	Write a python program to perform the following <ol style="list-style-type: none">Reverse a list in PythonConcatenate two lists index-wiseTurn every item of a list into its squareConcatenate two lists in the following order				
7	Write a python program to perform the following <ol style="list-style-type: none">Iterate both lists simultaneouslyAdd new item to list after a specified item				

	<ul style="list-style-type: none"> c. Replace list's item with new value if found d. Remove all occurrences of a specific item from a list. 				
8	Find Union, Intersection, Difference. $A = \{2, 4, 7, 27\}$ $B = \{3, 5, 8, 27\}$				
9	Write a python program to perform the following <ul style="list-style-type: none"> a. Convert two lists into a dictionary b. Merge two Python dictionaries into one c. Initialize dictionary with default values 				
10	Write a python program to perform the following <ul style="list-style-type: none"> a. Create a dictionary by extracting the keys from a given dictionary b. Rename key of a dictionary c. Get the key of a minimum value from the following dictionary 				
11	To write a program to demonstrate the list, adding items in list, removing item and removing list.				
12	To write a program to find addition of two matrix of $n \times n$ order using list.				
13	Write a python program to multiply two matrices				
14	To write a program to demonstrate the use of dictionary.				
15	To write a program to demonstrate the different string operations.				

16	<p>Write a python program to perform the following</p> <ol style="list-style-type: none"> Python program to check if a string is palindrome or not Python – Words Frequency in String Python program to accept the strings which contains all vowels Python program to split and join a string 				
17	Write a python to Remove all duplicates words from a given sentence				

Assignment 3: Python Programming with Object Oriented Concepts

S. No.	Program	Page No	Date	Sign	Remark
1	<p>Write a python program code for the following</p> <ol style="list-style-type: none">Write a Rectangle class in Python language, allowing you to build a rectangle with length and width attributes.Create a Perimeter() method to calculate the perimeter of the rectangle and a Area() method to calculate the area of the rectangle.Create a method display() that display the length, width, perimeter and area of an object created using an instantiation on rectangle class.Create a Parallelepiped child class inheriting from the Rectangle class and with a height attribute and another Volume() method to calculate the volume of the Parallelepiped.				
2	<p>Write a python program code for the following</p> <ol style="list-style-type: none">Create a Python class Person with attributes: name and age of type string.Create a display() method that displays the name and age of an object created via the Person class.Create a child class Student which inherits from the				

	<p>Person class and which also has a section attribute.</p> <p>d. Create a method displayStudent() that displays the name, age and section of an object created via the Student class.</p> <p>e. Create a student object via an instantiation on the Student class and then test the displayStudent method.</p>				
3	<p>Write a python program to perform the following</p> <p>a. Create a Class with instance attributes</p> <p>b. Create a Vehicle class without any variables and methods</p>				
4	<p>To write a program to implement different inheritance.</p>				
5	<p>To write a program overload different operators.</p>				
6	<p>Write a python program to perform the following</p> <p>a. Create a child class Bus that will inherit all of the variables and methods of the Vehicle class</p> <p>b. Define a property that must have the same value for every class instance (object)</p>				
7	<p>Write a python program to perform the following</p> <p>a. Create a Python class called BankAccount which represents a bank account, having as attributes: accountNumber (numeric type), name (name of the account</p>				

	<p>owner as string type), balance.</p> <p>b. Create a constructor with parameters: accountNumber, name, balance.</p> <p>c. Create a Deposit() method which manages the deposit actions.</p> <p>d. Create a Withdrawal() method which manages withdrawals actions.</p> <p>e. Create an bankFees() method to apply the bank fees with a percentage of 5% of the balance account.</p> <p>f. Create a display() method to display account details.</p>				
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