IT3008 - Programming with Python
Laboratory Practical Index

Sr. No.	Name of Practical	Actual Date
1	Write a python program to greet users with welcome messages using print () method.	2
2	Write a python program to implement basic assignment, arithmetic, logical, relational ,bitwise, comparison, Identity, and Membership operations on user entered numbers..	2
3.	Demonstrate the use of basic string methods in python - lower(), islower(), upper(), isupper(), join(), split(), find(), replace(), capitalize(), casefold(), and replace().	2
4.	Write a python program to demonstrate the creation of List data structure along with its methods - append (), extend(), insert(), remove(), clear(), index(), count(), sort(), reverse(), and copy(),pop(),insert(),min(),max(). I. Demonstrate positive and negative indexing with python List. II. Demonstrate slicing operations on python List. III. Demonstrate updation on List elements in python. IV. Demonstrate deletion of a single python list element and multiple elements using slicing operator.	2
5	Write a python program to demonstrate the creation of tuples along with its methods - count () and index (). I. Demonstrate positive and negative indexing with python Tuple. II. Demonstrate slicing operations on python Tuple.	2
6	Write a python program to demonstrate the creation of set along with its methods :add(),clear(),copy(),difference(),intersection(),union(),isdisjoint,issubset, issuperset()	2
7	Write a python program to demonstrate the creation of a Dictionary *student* with the *name*, *age* and *branch* of a student. I. Demonstrate the updation of python dictionary. II. Demonstrate the removal of elements from the python dictionary. III. Demonstrate the use of following dictionary methods - clear(), copy(), get(), items(), keys(), popitem(), and values(), len() and sorted().	2
8	Write a python program to demonstrate the use of i.if-else:- Python program to check whether the string is Symmetrical or Palindrome	2

	ii.for() - Program to multiply two matrices using nested loops. iii. while() :-	

9	```
	1
	1 2
	1 2 3
	1 2 3 4
	1 2 3 4 5
	
	1
	2 3
	4 5 6
	7 8 9 10
	11 12 13 14 15
	
	      *
	    * *
	  * * *
	* * * *
	* * * * *
	
	A
	B B
	C C C
	D D D D
	E E E E E
	``
	
	Write a python program to display above patterns.
		2

10	Write a python program to demonstrate the use of user-defined functions with single, multiple and arbitrary arguments. i.WAP to design simple calculator ii.	2
11	Create a class named employee having attributes - emp_name, emp_age, and emp_city. Create a method named get_data() in employee class that takes user input for these attributes. Derive a class named emp_derived() from the employee class, having an __init__() method that displays the attributes of the employee class upon instantiation.	2
12	(Write a python program to show the need of inheritance and encapsulation) Create a base class named university with its attributes - name, year_of_estd, and city. Derive following class from the super class university: professor, lab_assistant, office_assistant, and peon. Make the program choice based on the user. The attributes and method of various class are as below: - Attributes of professor class: designation, highest_qualification, area_of_research, year_of_joining, year_of_ experience, and name_of_institute. - Methods of professor class: __init__() method that gets invoked upon instantiation and takes values of class attributes. The display() method that prints class attribute values along with attributes of its super class. − Attributes of lab_assistant class: designation = "Lab Assistant" (static), highest_qualification, additiobnal_skilss, year_of_joining, and name_of_institue. 04/04/2022 - Methods of lab_assistant class: __init__() method that gets invoked upon instantiation and takes values of class attributes. The display() method that prints class attribute values along with attributes of its super class. − Attributes of office_assistant class: designation = "Office Assistant" (static), highest_qualification, year_of_joining, and name_of_institute. - Methods of office_assistant class: __init__() method that gets invoked upon instantiation and takes values of class attributes. The display() method that prints class attribute values along with attributes of its super class. − Attributes of peon class: job_role = "office Peon" (static), qualification, year_of_joining, and name_of_institute. - Methods of peon class: __init__()	4

	method that gets invoked upon instantiation and takes values of class attributes. The display() method that prints class attribute values along with attributes of its super class.	
13	Write a python program to create a class named area. Define a class method find_area() that can find areas of different shapes whose value is given by the user. Invoke the class method by instantiation and prove method overloading.	4
14	Write a python program to demonstrate the use of method overriding	2
15	Write a python program to perform basic matrix operations on user entered matrices.	2
16	Write a python program to demonstrate the use of data hiding.	2
17	I. Write a python program to demonstrate the use of try-catch block for exception handling. II. Write a python program to raise an exception with the python raise keyword III. Write a python program to demonstrate the try-finally block.	2
18	Write a python program to demonstrate various regular expressions.	2
19	Write a python program to read the content of a file and return the number of words in a file to the user.	2
20	Write a python program to copy the content of one file to another file.	2
21	Write a python program that creates 26 text files named A.txt, B.txt, and up to Z.txt.	2
22.	Write a python program that import different packages.	2
23.	Write a python program for web scrapping with BeautifulSoup Library	2
24.	To study about the selenium library.	2