CHARUSAT
CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY

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Faculty of Technology and Engineering

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Practical List

Academic Year	:	2022-23	Semester	:	4th
Course code	:	CE259	Course name	:	Programming in Python

Sr. No.	Aim	CO
1.	A) Introduction to Python Programming. Installation & Configuration of Python. Along with its all-major editors, IDLE, Pycharm, Anaconda, Jupyter, Interpreter etc. B) Write a python program to calculate simple interest.	1
2.	A) Create a list and apply methods (append, extend, remove, reverse), arrange created list in ascending and descending order. B) List1 = [1, 2, 3, 4, ["python", "java", "c++", [10,20,30]], 5, 6, 7, ["apple", "banana", "orange"]] From above list get word “orange” and “Python” & repeat this list five times without using loops. C) Create a list and copy it using slice function D) Create a tuple and apply different type of mathematical operation on it (Sum, Maximum, minimum etc.).	2
3.	A) String Operations: • Reverse a string, replace string with other string, merge two strings) • Find character is in string or not without using loops • Split string into multiple words B) Dictionaries Operations: • Apply “Update, Delete, clear, popitem, pop, get, keys and values” operation in dictionary. • Create 3 dictionaries and merge them into 1 dictionary	2
4.	These all programs should be done by declaring a function A) Found which grade student will get based on SGPA. B) Find max from three numbers C) Calculate number of Uppercase and lowercase letters of string given by user D) Find a Square of a given list using lambda function E) Enter value from user and print multiplication table F) Create a list by user given value and make sum of it using loop G) Use comprehension method • Create a two separate list of even and odd numbers from 1 to 50 • Get value which are divided by 5 from 1 to 100.	2

5.	A) Create a class employee and display employee details B) From above create class count number of employee and display a salary amount if the salary is raised to 1.04%. C) Fetch children class details using different types of inheritance (Single, Multilevel, and Multiple) With constructor D) Find who will be first among two students using polymorphism.	4
6.	Consider an example of declaring the examination result. Design three classes: Student, Exam, and Result. The Student class has data members such as those representing rollNumber, Name, etc. Create the class Exam by inheriting Student class. The Exam class adds fields representing the marks scored in six subjects. Derive Result from the Exam class, and it has its own fields such as total marks. Write an interactive program to model this relationship.	4
7.	A) Create a different package of addition, division, multiplication, subtraction, factorial, and Fibonacci-series and use it in result.py file. B) Different type of pandas and NumPy operations, and create charts using matplotlib	4
8.	Perform below operations 1. Create database 2. Create table 3. Database Version 4. Delete operation 5. Insert data to the database 6. Select data from the database 7. Update data in database	4
9.	Perform below Operations 1. Insert odd number in odd file and even number in even file 2. Read student name from student.txt and their marks from marks.txt 3. Create file close it and then read it 4. Read only text file and print any 5 number of words 5. Print triangle of 5 rows and insert it into file.	3
10.	Create Django RESTful API CRUD operations (MySql or SQlite3)	3
11.	Create Django RESTful API CRUD operations (In Django admin panel)	3
12.	Create dynamic login page using Django	3
13.	Create custom filed validation field in Django (for minimum 4 to 5 fields)	3