GLS UNIVERSITY
Msc.IT PROGRAMME [SEMESTER-I]
SUBJECT: OBJECT ORIENTED PROGRAMMING FOR PYTHON LABORATORY

TASK - 5

DATE: 17 AUGUST 2023 **TASK DEADLINE: 24 AUGUST 2023**

1. Write a python program for performing following operations and display results after each operation:
   (i) Create dictionary with details of 5 students : Rollno, name, semester, course, percentage.
   (ii) Update semester of student3 to 2.
   (iii) Delete the data of 4^{th} student.
   (iv) Copy this dictionary to dict2
   (v) Display the length of both the dictionaries

2. Create a dictionary with key as country and their capitals as values with 5 countries spain, france, germany, norway. Perform the following operations on this dictionary.
   (i) Print the capital of germany
   (ii) Remove norway and its capital from dictionary
   (iii) Take one country from user and print the index if it is present else print it is not present in the dictionary.
   (iv) Add India with capital in the dictionary

3. Write a menu driven program to implement the stack with operations push,pop and display.
4. Write a menu driven program to implement the queue with operations insertion , deletion and display.
5. Write a python program to demonstrate the concept of default arguments. Take the employee data from user: name, department and basic_salary. Write a function to to calculate total salary of the employee where total salary is sum of basic salary, DA and HRA. DA is 10% of basic salary and HRA is 15% of basic salary. If basic salary is missing, take default argument of basic salary as Rs. 9000.
6. Take two values of feet and inches from user. Create a function to add the values of feet with feet and inch with inch. Display the valid total result. (Inch should not be more than 11).
7. Write a function to find whether the number is armstrong number or not.
8. Write a function to add the values of two list and store that in third list and display the result.
9. Write a recursive function taking one integer argument, if argument is zero return zero else return sum of all the predecessor of that argument.
10. Write a recursive function for printing the fibonacci series. The argument n will be passed to the function, where n is number of terms in the series.