GOA COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER ENGINEERING

SUBJECT: - [CE 340] Object Oriented Programming System

FACULTY: - AMIT P. PATIL   **CLASS: - S.E COMPUTER (III) RC 19-20**

PLATFORM: - Dev C++/VS 2010   **YEAR: - Aug 2022 to Jan 2023**

Date of Announcement: **30-9-22**

Date of Submission: **14-10-22 (Offline mode)**

Assignment No-2

	Programs to Implement
1	Write a C++ program to declare a complex number class with its real and imaginary data members. Provide a friend function sum() to add the two complex type objects and store the result in the third complex type object. Accordingly display the result. Pass the arguments as reference variables and also collect the result as object. Declare and define the appropriate member functions required.
2	3.10 An electricity board charges the following rates to domestic users to discourage large consumption of energy: For the first 100 units - 60P per unit For next 200 units - 80P per unit Beyond 300 units - 90P per unit All users are charged a minimum of Rs. 50.00. If the total amount is more than Rs. 300.00 then an additional surcharge of 15% is added. Write a program to read the names of users and number of units consumed and print out the charges with names.
3	5.5 Create two classes **DM** and **DB** which store the value of distances. **DM** stores distances in metres and centimetres and **DB** in feet and inches. Write a program that can read values for the class objects and add one object of **DM** with another object of **DB**. Use a friend function to carry out the addition operation. The object that stores the results may be a **DM** object or **DB** object, depending on the units in which the results are required. The display should be in the format of feet and inches or metres and centimetres depending on the object on display.
4	3.5 An election is contested by five candidates. The candidates are numbered 1 to 5 and the voting is done by marking the candidate number on the ballot paper. Write a program to read the ballots and **count** the votes cast for each candidate using an array variable count. In case, a number read is outside the range 1 to 5, the ballot should be considered as a 'spoilt ballot', and the program should also count the number of spoilt ballots.