VIT

UNIVERSITY

(Estd. u/s 3 of UGC Act 1956)

Vellore – 632 014, Tamil Nadu, India

School of Information Technology and Engineering

Programme : MS [SE] – II Sem

Subject : Object Oriented Programming with C++

Cycle Sheet – II

1. **Write a program to find the area and perimeter of triangle, rectangle and square using function overloading .**
2. **Define a C++ structure called Nokia with the following members.**
   - **i) A long integer member to store the Mobile model.**
   - **ii) A float member to store the Price.**
   - **iii) A integer member to store the Demand level.**

   Write a C++ program
   - **i) To read the details of six Mobile model using an array variable.**
   - **ii) To sort the list based on the price of the mobile and display the sorted list.**
   - **iii) To sort the list based on the demand level and display the sorted list**
3. **Write a program to get the details of student and display it using class and object.**
4. **Define a class named TaxReturn that contains a taxID number, last name, first name, annual income, number of dependents and amount of tax owed for a taxpayer. Include constant static fields that holds the tax rates for the situations shown in the following table**

INCOME	0 DEPENDENT	1 DEPENDENT	2 OR MORE DEPENDENT
0 – 10,000	0.10	0.08	0.07
10,000 – 30,000	0.12	0.11	0.09
30,000 – 60,000	0.18	0.15	0.13
60,000 & UP	0.25	0.22	0.19

Include a static function that displays the tax table. Write a main function that contains a single statement that displays the tax table in C++.

5. **Develop an object oriented program in C++ to read the following information from the standard input device. Employee name, Employee code, Designation, Date of Joining (format mm/dd/yy—with date checking) & Age.**

   Carry out the following operations (Use arrays).
   a) **Display the Employee detail table with minimum 3 records.**
   b) **Insert a new Employee into the table**
   c) **Delete an entry from the table**
   d) **Edit an entry**
   e) **Search for a record based on employee code and print the details.**

6. **Create a Bank_Account class with private data members account_no, name, address and type of account. Account number should be unique.**
   i) Create member functions to enter the details of 5 account holders.
   ii) Search for an account based on an account number
   iii) Delete an account number.

7. **Create a class Bank_Atm with private data members initial_balance, current_balance, name, account number.**
   i) initiliase initial_balance to 1500 using constructor.
   ii) Get the details from the user for 3 users using arrays,
   iii)Use functions for deposit, withdrawal and displaying details.

8. **Write a class Gravitas Event Registration with private data members event_name, event_id, event_date, prize_amount. Maximum prize amount is 40K. Create the events such that the maximum prize amount doesn't exceed 40 K. If it exceeds that amount display error message.**

   i) Get the input from the user or use constructors.
   ii) Sort based on the event_date.