



## Term Evaluation (Odd) Semester Examination September 2025

Roll no.....

Name of the Course: Diploma (CS)  
Semester: 3  
Name of the Paper: Object Oriented Programming  
Paper Code: DTCS-301  
Time: 1.5 hour

Maximum Marks: 50

**Note:**

- (i) Answer all the questions by choosing any one of the sub-questions
- (ii) Each question carries 10 marks.

Q1. (10 Marks)

a. Differentiate between Procedure Oriented Programming (POP) and Object Oriented Programming (OOP) using suitable examples. (CO1)

OR

b. Explain the fundamental concepts of OOP (e.g., abstraction, encapsulation, inheritance, polymorphism) with appropriate examples. (CO1)

Q2. (10 Marks)

a. Explain the general structure of a C++ program with an example, labeling each section clearly. (CO1)

OR

b. Construct a simple C++ program that prints student details using iostream, main(), and return. Annotate each part of the program. (CO1)

Q3. (10 Marks)

a. Define a class in C++ and illustrate how to specify member functions inside and outside the class using an example. (CO2)

OR

b. Demonstrate the concept of objects by writing a program that creates multiple objects of a class and shows their usage. (CO2)

Q4. (10 Marks)

a. Explain with examples the different types of constructors in C++. (CO2)

OR

b. Develop a C++ program that uses a copy constructor to initialize an object. (CO2)

Q5. (10 Marks)

a. Explain the use of static data members and static member functions in C++ with appropriate examples. (CO2)

OR

b. Explain the need for a destructor in C++ and its working with a suitable example. (CO2)