



Term Evaluation (Odd) Semester Examination September 2025

Roll

Name of the Course: B.Tech

Semester: III

Name of the Paper: Object Oriented Programming with C++

Paper Code: TCS 307

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. Explain Different features of Object-oriented paradigm using proper C++ code CO1
OR

- b. Implement a C++ program to input a paragraph (multiple lines) and display: CO1
• total number of characters,
• total number of words, and
• total number of sentences.

Q2.

(10 Marks)

- a. Explain the role of this pointer in C++. Implement a C++ program to return an object using this pointer only. CO2

OR

- b. Implement a C++ program to input an array of n integers and: CO1
• Find the maximum element
• Find the minimum element
• Display the difference between maximum and minimum element.

Q3.

(10 Marks)

- a. With respect to C++ justify the statement “Friendship is granted not taken” in your own words with proper examples. CO2

OR

- b. Implement a C++ program by creating a class BankAccount with CO1, CO2
Private Data Members:

- int accNo
- string name
- float balance

Private Member Function:

- float interest() → returns 5% interest on current balance.

Public Member Functions:

- Constructor to initialize account details.
- display() : shows account details with balance after adding interest.

In main(), create an array of 5 accounts and display their final balances.



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Q4.

a. Create a class MyString with:

CO2

(10 Marks)

- **Private Data Member:**

- char str[50]

- **Public Member Functions:**

- Constructor to initialize string.
 - display() :prints the string.
 - Overload operators:
 - + : to concatenate two strings.
 - == : to compare two strings.

In main(), create two strings and demonstrate concatenation and comparison.

OR

b. Implement a C++ program to Overload binary - operator using the concept of operator overloading CO2

Q5.

(10 Marks)

a. With the help of C++ Program overload post increment operator -- using friend function only CO2
OR

b. Classify different types of constructors in C++ . Implement a proper c++ program to demonstrate the working of copy constructor. CO2