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Total number of pages:[01]

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B.Tech. -CSE/ 3<sup>rd</sup> Sem

**Object Oriented Programming using C++**

Subject Code: BTCS-305A

Paper ID :

Time allowed: 3 Hrs

Max Marks:60

**Important Instructions:**

- All questions are compulsory

**PART A (10 x 2 marks)**

Q. 1. Answer in brief:

- What is Object Oriented Programming?
- Define class.
- Differentiate between While and Do-While loop.
- What is Data abstraction?
- What is Function overriding?
- Define this operator.
- Define constructor.
- What is a template?
- What is operator overloading?
- What is Data Hiding? How it is achieved in C++?

**PART B (5 × 8 marks)**

2. Write a program to reverse of number using classes and objects.

OR

Write a program in C++ to find the sum of first n natural numbers.

CO5

3. What do you mean by virtual function? Write a program to compare height measured in feet and inch using operator overloading.

OR

Define by inheritance? What are different forms of inheritance? Briefly explain difference between private and protected access specifier using a suitable example.

CO2

4. Write a program to copy the contents of one text file to another.

OR

Discuss the exception handling features of C++.

CO3

5. Explain the various features of object oriented programming.

OR

Compare traditional imperative design with object oriented design.

CO1

6. Discuss the concept of memory management in C++ with a suitable example.

OR

How different methods by which memory allocation is done in C++. Explain.

CO4