

BACHELOR OF TECHNOLOGY (CBCS - 2023)
B. Tech. Sem-II Information Technology : WINTER: 2025
SUBJECT: OBJECT ORIENTED PROGRAMMING

Day : Tuesday
Date : 02/12/2025

W-27746-2025

Time : 10:00 AM-01:00 PM
Max. Marks : 60

NB:

1. All questions are COMPULSORY.
2. Figures to the right indicate FULL marks for the question.
3. Draw neat labelled diagrams WHEREVER necessary.
4. Assume suitable data, if necessary.

- Q. 1 Differentiate between for, while, and do-while loops with syntax and examples. (10)
- OR**
- Q. 1 List and explain different fundamental data types in C++ with examples. (10)
- Q. 2 What is a friend function? How does it differ from a member function? (10)
- OR**
- Q. 2 Explain the concepts of Encapsulation and Abstraction with examples. (10)
- Q. 3 List and explain various inbuilt functions of string class. (10)
- OR**
- Q. 3 Explain binary operator overloading with suitable example. (10)
- Q. 4 What is a virtual base class? Why is it used? Illustrate with an example. (10)
- OR**
- Q. 4 Explain the concept of pointer to object with an example. (10)
- Q. 5 Discuss the following file stream operations with suitable examples: (10)
- (i) Opening and closing a file.
(ii) Reading from and writing to a file.
- OR**
- Q. 5 What are file pointers? How can they be manipulated using seekg(), seekp(), tellg(), and tellp()? Illustrate with code snippets. (10)
- Q. 6 What is the Standard Template Library (STL)? Name any three major components of STL and briefly explain their purpose. (10)
- OR**
- Q. 6 Explain the concept of rethrowing an exception suitable example. (10)

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