

Seat No. **OCT-NOV 2025 WINTER EXAMINATION****11731 Bachelor of Technology (NEP-2.0)****Sub. Name: Object Oriented Programming(AIML)****Sub. Code: 114473/112925****Day and Date: Wednesday,10-12-2025****Total Marks: 60****Time: 02:30 PM To 05:00 PM**

- Instructions:**
- 1. All questions are compulsory**
 - 2. Assume suitable data wherever necessary and mention it boldly**
 - 3. Draw neat labelled diagrams wherever necessary**
 - 4. Figures to the right indicate full marks**

- Q1) Solve the following MCQ questions (Any 5) [5]**
- a.** Which of the following is NOT a basic concept of OOP? [1]
A) Encapsulation B) Inheritance
C) Polymorphism D) Compilation
- b.** Which of the following correctly defines an inline function in C++? [1]
A) Declared using keyword inline
B) Declared using keyword static
C) Defined inside a class only
D) Declared using extern
- c.** Which of the following correctly defines a destructor in C++? [1]
A) ~ClassName() B) ClassName()
C) delete ClassName() D) void destructor()
- d.** Which of the following is a pointer that stores the address of an object? [1]
A) Object pointer
B) Derived pointer
C) Base address
D) this pointer
- e.** Which of the following is a part of the Standard Template Library (STL)? [1]
A) scanner
B) vector
C) linker
D) debugger
- f.** Which class is used for writing to a file in C++? [1]
A) ifstream
B) ofstream
C) fstream

D) filewrite

Q2) Solve any three questions from the following. [15]

- a. Explain loops in OOP with Syntax , Flowchart and Example. [5]
- b. Explain the use of the scope resolution operator (::) in C++ with examples. [5]
- c. Explain in detail inheritance. [5]
- d. Explain access control specifiers in C++ (public, private, protected) with examples. [5]

Q3) Solve any three questions from following. [15]

- a. What is a virtual function? How does it help achieve run-time polymorphism in C++? [5]
- b. What are generic functions and generic classes . Explain with examples [5]
- c. Explain operator overloading. Which operators cannot be overloaded in C++? Justify . [5]
- d. Discuss the different types of exceptions in C++ in detail [5]

Q4) Solve any three questions from following. [15]

- a. What are the predefined stream classes in C++? Describe the role of istream, ostream, and fstream classes. [5]
- b. Explain Class Templates with Multiple Parameters in C++ with a suitable example. [5]
- c. Describe different file I/O modes available in C++. [5]
- d. What is the purpose of re-throwing an exception? Explain the concept of specifying exceptions and when it is used in C++. [5]

Q5) Write Short note (any 2) [10]

- a. Dynamic Memory Management [5]
- b. STL [5]
- c. File pointer manipulators [5]

End Of Question Paper

Important Note for Chief Exam Officer / SRPD Coordinator / Sr Supervisor/ Student -

This Question Paper may be distributed for following Subjects as common code.

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- 1] (1154) B.Tech. CBCS (114473) Object Oriented Programming(AIML) Part 2 SEM 3
- 2] (11731) Bachelor of Technology (NEP-2.0) (112925) Object Oriented Programming(AIML) Part 2 SEM 3

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