

**RAN-2411001103020001**

B.Sc. (IT) NEP (Sem.- III) Examination February - 2026
Object Oriented Programming - Major - 2 (Paper - 304)

Time: 2 Hours]**[Total Marks: 50****સૂચના : / Instructions**

- (1) ઉપરોક્ત દશાવિલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
 Fill up strictly the above details on your answer book

Seat No.:

----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

Student's Signature

Q.1. [A] Explain the following. [Any Five]**[5]**

- | | |
|----------------|-------------|
| 1) try | 2) private |
| 3) inheritance | 4) instance |
| 5) scope | 6) istream |

Q.1. [B] Answer following questions in short [Any Five]**[5]**

- Can we overload the destructor in C++?
- Which C++ feature allows the same function name to perform different tasks?
- What is an abstract class?
- Which keyword is used to prevent overriding of a virtual function in a derived class?
- When should you use the friend function?
- What is the use of inline function?

Q.2. Answer the following questions in detail [Any Two]**[14]**

- What is a destructor? Develop a program to show how destructors are called automatically when an object goes out of scope.
- Explain use and working of static data members and member functions in C++. Write a program that demonstrates their use.
- Explain use cases of manipulators in C++ with suitable code and examples.

Q.3. Do as directed. [Any Two]**[14]**

- Explain inheritance in C++. Develop a program in C++ to demonstrate constructor and destructor execution order in inheritance.
- Develop a C++ program to overload the '==' operator to compare two string objects.
- Demonstrate base class pointer and derived class object concept in runtime polymorphism with a program.

Q.4. Do as directed [Any Two]**[12]**

- Explain function templates in C++. Develop a program to find the maximum of two values using a template function.
- Demonstrate formatted output using ostream and istream operators for a "Product" class.
- Develop a C++ to read data from the console and write it to a file.