



RAN-2411001103020001

B.Sc. (IT) (Sem.- III) Examination November - 2025 Object Oriented Programming (NEP) Major - 2 (Paper - 304)

Time: 2 Hours]

[Total Marks: 50

સૂચના : / Instructions

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

Seat No.:

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Student's Signature

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

[5]

- 1) overriding
- 2) class
- 3) exception
- 4) function overloading
- 5) ostream
- 6) cout

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

[5]

- 1) Explain use of setw.
- 2) What is function template?
- 3) When should you use const data member?
- 4) When should you use an inline function?
- 5) How to use default arguments?
- 6) List out the operators that cannot be overloaded.

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

[14]

- 1) What is OOP? Explain its main principles.
- 2) What are static data members and static member functions? Explain their working with examples.
- 3) Define containership. How is it different from inheritance?

Q.3. Answer the following questions in detail [Any Two]

[14]

- 1) Develop a program in C++ to demonstrate constructor and destructor execution order in inheritance of two classes.
- 2) Develop a C++ program to overload both pre-increment and post-increment operators (++) and explain their difference.
- 3) Explain runtime polymorphism in C++.

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

[12]

- 1) Differentiate seekg() and seekp() functions with a small program example.
- 2) Explain class templates in C++. Develop a program to implement a generic "Number" class.
- 3) Explain the concept of C++ streams using suitable program.