



RAN-2411001002022001/2411001002020021

F. Y. B. Sc. Computer Science Sem. - II

Examination October - 2025

Major-2 - CS - 204 : Object Oriented Programming Using C++

Time: 1 Hour]

[Total Marks: 25

સૂચના : / Instructions

(૧)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

F. Y. B. Sc. Computer Science Sem. - II

Name of the Subject :

Major-2 - CS - 204 : Object Oriented Programming Using C++

Subject Code No.: 2411001002022001

Seat No.:

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Student's Signature

Q.1. Attempt the following. (Any Five)

[05]

- (a) Which of the following best defines encapsulation?
- Hiding implementation details and exposing functionality
 - Inheriting properties from another class
 - Ability to use multiple forms of a function
 - Defining multiple functions with the same name
- (b) Which access specifier allows a member to be accessible only within the same class?
- Public
 - Private
 - Protected
 - Default
- (c) What happens when a constructor is declared as private?
- It cannot be inherited
 - It cannot be accessed outside the class
 - Object creation is restricted
 - It becomes a virtual function

- (d) Which type of inheritance involves a class inheriting from multiple base classes?
 - a) Single
 - b) Multilevel
 - c) Hybrid
 - d) Multiple
- (e) What is the purpose of a friend function?
 - a) To access private and protected members of a class
 - b) To provide direct memory access
 - c) To modify static members only
 - d) To create objects dynamically
- (f) What is the difference between text and binary files?
 - a) Text files store data in machine language, binary files store data in characters
 - b) Text files are readable by humans, binary files are not
 - c) Binary files take more space than text files
 - d) There is no difference
- (g) Which operator is used with dynamic memory allocation in C++?
 - a) malloc
 - b) free
 - c) new
 - d) delete

Q.2. Answer the following questions.

- (a) Explain the role of constructors and destructors in OOP. [04]

OR

- (a) What are access specifiers? Explain their significance with examples. [04]
(b) Describe hybrid inheritance. Give proper example. [04]

OR

- (b) Explain the role of constructors in inheritance. [04]

Q.3. Answer the following questions.

- (a) What is method overriding? How does it differ from method overloading? [04]

OR

- (a) Explain the concept of virtual functions with an example. [04]

(b) Discuss the advantages and disadvantages of binary files over text files. [04]

OR

(b) Explain file handling operations in C++ with examples. [04]

Q.4. Answer the following questions.

(a) Differentiate multilevel and multiple inheritance with example. [04]

OR

(a) What is function template? Explain with an example. [04]
