(180-CU-404031)　　　　Roll No. ....

PAPER ID—10598

B.C.A. EXAMINATION, 2024

(Fourth Semester)

OBJECT ORIENTED PROGRAMMING

USING C++

Code : BCA-208

Time : 3 Hours　　　　　Maximum Marks : 80

Before answering the question-paper candidates should ensure that they have been supplied to correct and complete question-paper. No complaint, in this regard, will be entertained after the examination.

Note : Attempt *Five* questions in all, selecting *one* question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.

(Compulsory Question)

1. (a) Define Object oriented programming.

　(b) What do you mean by flow control ?

　(c) What is Private visibility in C++ ?

　(d) Which operator is used for dynamic memory allocation ?

　(e) Explain virtual function.

　(f) Can we use multiple inheritance in C++ ? How ?

　(g) What is the term denoting resource capture ?

　(h) What is namespace in C++ ?　　**8×2=16**

Unit I

2. (a) Explain the following :　　　　　8

　　(i) Polymorphism

　　(ii) Encapsulation.

　(b) What are the differences between POP and OOP ?　　　8

3. Explain the following : **16**

   (a) Recursion

   (b) String data type

   (c) Array

   (d) Resolution and Ternary Operator.

Unit II

4. What do you mean by constructor ? Explain in detail its types with example. Also explain destructor with example. **16**

5. (a) What do you mean by memory management ? How is it implemented in C++. **10**

   (b) Explain "This" and Assignment operator with example. **6**

Unit III

6. (a) How inheritance play role in reusing the code ? Explain Multilevel inheritance in detail with example. **8**

   (b) Write a program to overriding member function in C++. **8**

7. Explain in detail with suitable programming example :

   (a) Friend function **8**

   (b) Static Function. **8**

Unit IV

8. What is Exception ? How is it handled in C++ ? Explain in detail. **16**

9. Explain the following with example : **16**

   (a) Template class

   (b) Template function

   (c) Iterators and hash

   (d) Namespace.