Roll No. .....

97675

BCA 4th Semester (Full & Re-Appear) Examination – May, 2024

OBJECT ORIENTED PROGRAMMING USING C++

Paper : BCA-208

Time : Three Hours] *[Maximum Marks : 80*

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

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

1. Explain the following :

(a) Friend Function

(b) Virtual Functions

(c) Iterators

(d) Differentiate between Procedural Language and Object Oriented Approach

(e) Namespace in C++

(f) Object copying

(g) Abstract class

(h) Polymorphism

UNIT – I

2. (a) What is C++ Programming language ? Explain its syntax and data types in detail.

(b) What is Object Oriented Programming ? Discuss the characteristics of Object-Oriented of OOP in detail.

3. (a) What is Flow control ? Explain the types of flow control statement in C++.

(b) Explain the following in detail :

(i) Array and pointer

(ii) Variables and string

UNIT – II

4. What are Constructors and Destructors in C++ ? What are the advantages of using constructors ? Explain in detail.

5. What is Memory management ? Explain the concept of copy constructer and assignment operator in detail.

UNIT – III

6. Explain the following in detail :

(a) Overriding member function through suitable example

(b) Ambiguity in Multiple inheritance

7. What is inheritance ? Explain the types and need of inheritance with example.

UNIT – IV

8. What are templates ? Why are they needed ? Explain the concept of Class Templates with multiple parameters and overloading of Template function in detail.

9. What are exceptions ? How is an exception handled in C++ ? What is the need of exception handling ? Explain in detail.