

4294

B.C.A. (II Sem.) Examination, 2024

Paper : I

Object Oriented Programming Using C++

Time : Three Hours]

[Maximum Marks : 75

Note : Attempt any **five** questions. **All** questions carry equal marks.

1. ✓ How does the concept of classes & objects play vital role for object oriented programming? Explain with suitable example. 15
2. ✓ What is polymorphism? How does compile-time binding and runtime binding work? Give suitable example. 15

P.T.O.

- (2)
3. what is Operator overloading? Explain the concept of dynamic memory allocation in detail with example. 15
4. Define two classes woo, moo & koo. Each class must have data member and member function. Explain the concept of inheritance via these classes. 15
5. Explain the function overriding concept in detail? What are its benefits? 15
6. What is generic class? Write a class code in C++ for implementing traffic signal system. (Class only) 15
7. Write a C++ code to handle employee data in an educational institute. Write all classes, data members and methods required. 15

(3)

8. ✓ What is the concept of exception handling?
How does it help to implement fail-safe code?
Explain with example. 15

9. What are class hierarchy? Explain the public, private and protected class inheritance with suitable example. 15

10. ✓ Write short note on any **two** of the following : 15

(a) New and delete operators.

(b) Garbage Collection.

(c) Call by value and call by reference.