

2026

COMPUTER SCIENCE

Course Name : Object Oriented Programming Through C++

Course Code : COM-MAJ-2014

Full Marks : 45

Time : 2 Hours

1. Answer the following questions : 1×5=5
- i) Which of the following keyword is used to create a class in C++
 - a) struct
 - b) class
 - c) object
 - d) define
 - ii) Which concept allows the same function name to perform different tasks ?
 - a) Encapsulation
 - b) Inheritance
 - c) Polymorphism
 - d) Abstraction
 - iii) Which operator is used to allocate memory dynamically in C++?
 - a) malloc
 - b) alloc
 - c) new
 - d) create
 - iv) Which of the following is used to write data into a file ?
 - a) ifstream
 - b) ofstream
 - c) cin
 - d) getline

(Turn over)

- v) Destructor is called automatically when an object goes out of scope. (True/False)
2. Answer the following questions (any five): 2x5=10
- a) What is encapsulation ?
 - b) Define object in C++
 - c) What is function overloading ?
 - d) What is the use of destructor ?
 - e) What is dynamic memory allocation ?
 - f) What is multilevel inheritance ?
 - g) Define access specifiers in C++
3. Answer the following questions (any four): 5x4=20
- a) Explain different types of constructors with examples.
 - b) Describe single inheritance with a suitable example.
 - c) What are tokens in C++ ? Explain with examples.
 - d) Explain compile-time polymorphism with examples.
 - e) Discuss the difference between structure and class in C++.
 - f) Explain file handling operations in C++.
4. Answer the following questions (any one): 10x1=10
- a) Explain polymorphism in detail. Discuss both compile-time and runtime polymorphism with examples.
 - b) What is inheritance ? Explain its various types with suitable diagrams and examples.
 - c) Explain constructors and destructors in C++ with examples and their importance in OOP.
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