

BCS-031

BACHELOR OF COMPUTER APPLICATIONS (BCAOL)

PROGRAMME IN C++

Time : Three Hours

Maximum Marks : 100

Note : There are three sections in this paper. Attempt all the Sections.

Section-I (Short Answer Type Questions) (5×4=20)

Attempt any five questions. Each question carries 4 marks.

1. Explain the term 'Abstraction' with an example.
2. What is multilevel inheritance? How does it differ from multiple inheritance?
3. What is Recursion? Explain it with an example.
4. List any four operators that cannot be overloaded in C++.
5. List any four keywords in C++. Also, explain their functions.
6. What is a static member function in C++? Explain with an example.
7. Explain the use of private access specifier with the help of an example.

Section-II (Medium Answer Type Questions) (5×10=50)

Attempt any five questions. Each question carries 10 marks.

8. Write a Program in C++ for the subtraction of two matrices.
9. What is a pure virtual function in C++? Explain with an example program.
10. Write a program in C++ to create a class STUDENT to keep information of all students in a university. The program should have constructor and member functions to get the details such as Name of the student, His/Her Enrollment Number, His/Her Programme of study etc. Make necessary assumptions.
11. What is an Abstract Class? Explain use of it with an example.

12. How are Strings handled in C++? Explain how a string can be revised with the help of a program.
13. What is a copy constructor? Explain its use with an example.
14. What is message passing? Explain how message passing is used in C++ with the help of an example.

Section-III (Long Answer Type Questions) (2×15=30)

Attempt any two questions. Each question carries 15 marks.

15. What are istream and ostream member functions? Create a base class named QUEUE and a derived class AQUEUE. Write a program in C++ to show the operations on the Queue. Make necessary assumptions.
16. Write a program in C++ to demonstrate how exceptions are handled.
17. What are templates in C++? Explain their advantages with example.