Time : Three hours   Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1.   List the function elements.

2.   Define keyword and name any two-keyword used in C++.

3.   What is the need of friend function?

4.   Distinguish constructor and destructor.

5.   How I/O operations are performed on console?

6.   State the use of pointer.

7.   What is command line arguments?

8.   Define asymptotic notation.

9.   Draw the structure of doubly linked list.

10.   What is the advantage of circular queue?

11.   Write the Post order sequence of tree traversal.

12.   Define height of a tree.

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Explain call by reference with an example.

14. Elaborate C++ tokens with an example.

15. Write a program to swap two variables using function overloading.

16. Explain Multiple inheritance with an example.

17. Write a C++ program to read the contents from a file.

18. Write an algorithm to perform Linked list deletion with an example.

19. List and explain any six key terms associated with the Graph.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Elaborate various control structures in detail.

21. Discuss binary operator overloading with an example.

22. Explain how insertion, deletion and search operations performed on array in detail.

23. Write the applications of stack. Explain stack operations in detail.

24. Discuss Breadth First Search(BFS) and Depth First Search (DFS) with an example.

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