MAY 2021

P/ID 16301/ PIT1A/PCATA

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Define Pointer.

2. Distinguish between call by value and call by reference.

3. Write the uses of scope resolution operator in C++.

4. Give syntax of friend function in C++.

5. Compare overloading and overriding.

6. Why does virtual function be required in C++?

7. Mention the various file opening modes in C++.

8. List out the asymptotic notations.

9. What is circular queue?

10. Write an algorithm to count number of nodes in a linked list.

11. Specify graph representation methods.

12. Define binary tree.

PART B — ($5 \times 6 = 30$ marks)

Answer any FIVE questions.

13. State precedence rule. Discuss about precedence of operators in C++.

14. What is dynamic allocation? Explain.

15. Discuss the Scope of static variable in C++.

16. What is random access? Explain role of seekg( ) and seekp( ) in random access.

17. List out and briefly describe the applications of stack.

18. Write an algorithm to convert infix expression into postfix form.

19. Explain DFS with an example.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions

20. What is virtual function? Explain with an example.

21. What is function overloading? Explain with an example.

22. What are the operations on array? Explain.

23. Explain maze problem.

24. List out and explain various hashing methods.
