

**MAY 2023**

**P/ID 16301/PIT1A/  
PCATA**

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Time : Three hours

Maximum : 80 marks

PART A — ( $10 \times 2 = 20$  marks)

Answer any TEN questions.

1. Define the term keyword. List out any four keywords.
2. Define the term friend function. Write syntax to define a friend function.
3. Write the rules for making an identifier name?
4. What is the use of operator overloading?
5. What is the use of virtual function?
6. What are input and output streams?
7. List out stream classes for file operations.
8. What is the purpose of seekg() function? Give an example for its use.
9. What is the postfix form of the expression  $A+B*(CD)/(PR)$ ?

10. Write a pseudocode to insert an element at the end of a linked list.
11. What is a hash table?
12. Give few applications of BFS.

PART B — ( $5 \times 6 = 30$  marks)

Answer any FIVE questions.

13. Discuss on function prototype with a suitable program.
14. Explain destructors with an example program.
15. Define the term function overloading. Illustrate with a C++ program.
16. Discuss on various operations performed on Arrays.
17. What is a stack? Write down the procedure for implementing various stack operations.
18. Explain the representation of a Polynomial.
19. How to convert a Forest to Binary Tree. Explain with an example.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

20. Elaborate various control statements available in C++ with suitable code examples.
21. Explain any three types of inheritance with neat diagram and code examples.
22. How to handle the errors during file operations? Illustrate with code examples.
23. What is Queue? Explain the operations on Queues with algorithm and examples.
24. Discuss various types of Graphs with suitable illustrations.

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