MAY 2022 **P/ID 17601/PCA1A**

Time : Three hours Maximum : 80 marks

PART A — (10 × 2 = 20 marks)

Answer any TEN questions.

1. Differentiate between character constant and character string.

2. Write an example for nested if else ladder.

3. Write two different ways of passing parameters.

4. Name the variables that stores command line arguments and number of arguments.

5. Write variable declaration for array of structures.

6. What are file opening modes?

7. Which object is pointed by 'this' pointer?

8. What is the purpose of destructor?

9. Write the uses of new and delete operators.

10. Define the term virtual function.

11. How will you format strings in fixed column width?

12. List out any two POS class functions.

PART B — (5 × 6 = 30 marks)

Answer any FIVE questions.

13. Write an example program to pass an array to a function.

14. Define the term recursion. Explain how a recursive function executes.

15. Write a program to store 10 integers using pointers instead of array and display the elements.

16. Write a program that passes and returns an object to and from a function.

17. What are default arguments in function? Illustrate their use.

18. What is function template? How will you add two numbers of any data type? Give example.

19. Write code to create your own manipulator that formats a number 234.68 as 'Rs. 234.68'.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

20. Explain in detail about two-dimensional arrays with suitable example.

21. Write a program to create bank customer file to store customer_number, Name Address, Principal, Period of deposit, Interest rate for each customer. Read the file to compute simple interest and display customer data along with simple interest for the money deposited.

22. Explain the use of static data and member function with an example program.

23. Write a program that overloads + and – operator to add and subtract two matrices.

24. Explain pure virtual function and overriding concept in C++ with illustrative example.

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