2017

BCA

4th Semester Examination

C++ LAB

PAPER—2296 (SET-1)

(Practical)

Full Marks : 100

Time : 3 Hours

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer any *two* questions (*on Lottery Basis*) :   2×25

1. Write a C++ program to implement stack using array.

2. Write a C++ program to overload new and delete operator.

3. Write a C++ program to perform the following series :

   S = 1 + 1! + 2! + 3! + 4! + ………. + n!

4. Write a C++ program to draw a circle, square, rectangle using multiple inheritance with virtual function.

(Turn Over)

5. Write a C++ program to print first 100 non-Fibonacci numbers.

6. Write a C++ program to display student details using single inheritance.

7. Write a C++ program to print the following. Take the number of lines as input.

    1
    2 3
    4 5 6
    7 8 9 10

8. Write a C++ program to add two complex numbers using object as arguments.

9. Write a C++ program to convert a decimal number to binary number.

10. Write a C++ program for unary operator overloading.

11. Write a C++ program to read a square matrix and display its transpose.

12. Write a C++ program to convert centimeter to meter using basic to class type.

13. Write a C++ program to perform matrix multiplication using friend function.

14. Write a C++ program to implement inline function.

15. Write a C++ program to calculate the area and perimeter of a rectangle using multiple inheritance.

(Continued)

16. Write a C++ program to print a number in reverse order.

17. Write a program in C++ to search an element from an array using binary search.

18. Write a C++ program for bubble sort using template.

19. Write a C++ program to find the sum of individual digits of a positive number.

20. Write a C++ program to overload >>, << and ++ operators.

21. Write a C++ program for overloading the unary minus (–) operator.

22. Write a C++ program to write and read text in/from file.

23. Write a C++ program to implement queue using array.

24. Write a C++ program to calculate the sum of the following series :

$$1 + \frac{2}{2!} + \frac{3}{3!} + ... + \frac{n}{n!}$$

25. Write a C++ program to find Armstrong numbers between 100 to 500.

26. Write a C++ program to print the triangle :

```
1
2 3
4 5 6
7 8 9 10
```

(Turn Over)

27. Write a C++ program to implement constructor and destructor.

28. Write a C++ program to overload the 't' operator and use it for string concatenation.

29. Write a C++ program to show the use of friend function within a class.

30. Write a C++ program to implement matrix multiplication using operator overloading.

31. Write a C++ program to add two integers, two floating point numbers, and two string using function overloading.

32. Write a C++ program to read and write *n* numbers from a file.

INSTRUCTIONS

Distribution of Marks —

Practical Note Book	:	**05**
Viva-Voce	:	**15**

Experiments —

Any two	:	**50**
Internal Assessment	:	**30**
TOTAL	:	**100**