2016

BCA

4th Semester Examination

C++ LAB

PAPER—2296 (SET-2)

(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 display student details using single inheritance.

2. Write a C++ program to print first 100 non-Fibonacci numbers which are prime.

3. Write a C++ program to display the account number and balance using constructor overloading.

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

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

$$S = 1 + \frac{1}{\lfloor 2} + \frac{1}{\lfloor 3} + \frac{1}{\lfloor 4} + \cdots + \frac{1}{\lfloor n}.$$

6. Write a C++ program to overload new and delete operators.

7. Write a C++ program that reads several names from the keyboard and displays only those names starting with 'A' or 'B'.

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

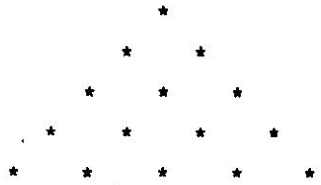
9. Write a C++ program to read a square matrix and displays its transpose.

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

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

12. Write a C++ program to add two complex numbers using object as argument.

13. Write a C++ program that print :



14. Write a C++ program to print the given number in reverse order.

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

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

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

18. Define a class array which can hold 10 elements of type int. Define a member function int Get (int index); which return indexth element of the array of index is between 0 to 9 and throws an exception if index is out of bounds. Catch the exception in the main program and print an error.

19. Write a C++ program to search an element of an array using binary search technique.

20. Write a C++ program in which a class has three data members : name, roll no., marks of subjects and a member function Assign () to assign the streams on the basis of table given below :

Avg. Marks	*Stream*
90% or more	Computers
80% — 89%	Electronics
75% — 79%	Mechanical
70% — 74%	Electrical

INSTRUCTIONS

Distribution of Marks —

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

Experiments —

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

1. Each candidates have to perform two experiments.
2. Selection of experiment will be done by lottery or drawing cards.
3. Normally two changes will be given for each candidate for drawing card, but not at a time (by rotation).
4. Third and the last chance may be given by deducting 2 marks (for each group).
5. Marks on PNB will be given proportionately to the number of experiments performed properly.
6. In case of any ambiguity relating to questions or evaluation, Examiners should contact to Head Examiner.