

**NEW**

**2015**

**BCA**

**1st Semester Examination**

**C PROGRAMMING LAB**

**PAPER—1196 (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 : 2×25**

1. Write a C program to check whether a given number is armstrong or not.

*(The number should be provided by the examiner and should be more than three digit number).*

*(Turn Over)*

2. Write a C program to find the sum of  $\cos(x)$  series upto  $n$  where  $n \leq 10$ , and

$$\cos(x) = 1 - x^2/2! + x^4/4! - x^6/6! + \dots - x^n/n!$$

3. Write a C program to **merge** two arrays.
4. Write a C program to to sort the elements of an array using Insertion sort :

12    7    1    9    4    6    2    4    11    5

5. Write a C program to find the sum of factorials of all digits of a number using recursion.
6. Write a C program to count the different characters and print each character along with their number of occurrence in a string.
7. Write a C program to **sort** the following strings in alphabetic order

*Input* : Pen, Book, Keyboard, Duster, Artlinemarker,  
Printer, Mouse, Clip, Stapler.

8. Write a C program to check a given number is existing or not and print its position using any searching algorithm.

9. Write a C program to sort all elements of a matrix using bubble sort.
10. Write a C program to perform matrix multiplication.
11. Write a C program to Count number of vowels and consonant in a given string.
12. Write a program to find the GCD and LCM of two numbers.
13. Write a C program to separate each digit from a number and multiply them and also find the number of digits.
14. Write a program to display a name in abbreviated forms :  
*Example* : Amal Kumar Maity  
          A. K. Maity.
15. Write a C program to convert a dicimal number into its equivalent octal number.
16. Write a C program to print the following figure :

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1
2 3
4 5 6
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17. Write a C program to display first 10 fibonacci numbers using recursion.
18. Write a program to check whether a string is palindrome or not :

*Input* : PALINDROME, NAYAN.

*Viva* — 15

*PNB* — 5

*Internal Assessment* — 30

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