

**NEW**

**2015**

**BCA**

**1st Semester Examination**

**C PROGRAMMING LAB**

**PAPER—1196 (Set-3)**

**(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  
taking *one* from each group.

2×25

**Group—A**

1. Write a program to check whether a given number is Prime.
2. Write a program to display the Armstrong number from 100 to 1000.

*(Turn Over)*

3. Write a program to find the factorial of a given number.
4. Write a program to check if a given string is palindrome or not.
5. Write a program to sort the following numbers in descending order :  
12    6    14    10    3    7    5
6. Write a program to check whether a given input is alphanumeric or not.
7. Write a program to swap the values of two variables using call by reference method.
8. Write a program to find the second highest number from an array of numbers.
9. Write a program to extract each digit from a given number and multiply them and also find the number of digits.
10. Write a program to calculate the GCD and LCM of two given numbers.

**Group-B**

11. Write a program to find first 10 numbers in Fibonacci series using recursion.
12. Write a program to calculate the Mean and Standard Deviation of the following data :  
60    10    26    15    30    45    12    6
13. Write a program to check whether a given Matrix is symmetric or not.
14. Write a program to read a set of numbers and store them in a file.
15. Write a program to display the abbreviation form a given string.  
Example :  
Input : Vidyasagar University  
Output : V.U.

16. Write a program to print the following Sequence :

1

2 3

4 5 6

7 8 9 10

17. Write a program to convert a decimal number into its equivalent octal form.

18. Write a program to find the roots of any quadratic equation  $ax^2 + bx + c = 0$

19. Write a program to compute  $1 + \frac{2^2}{2} + \frac{3^3}{3} + \frac{4^4}{4} + \dots$

20. Write a program to multiply two matrices.

*Viva* — 15

*PNB* — 5

*Internal Assessment* — 30