

2017**BCA 1st Semester Examination****C PROGRAMMING LAB.****PAPER—1196 (Set-I)****(Practical)****Full Marks : 100****Time : 3 Hours***The figures in the right-hand 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 through lottery basis.****2×25**

1. Write a C program to find the roots of a quadratic equation :

$$ax^2 + bx + c = 0, a \neq 0$$

2. Write a C program to print the following figure :

```
1
2 3
4 5 6
```

3. Write a C program to remove duplicate (repeated) numbers in an array.
4. Write a C program to check whether a number is palindrome or not.
5. Write a C program to print the prime numbers in between 10 and 200.
6. Write a C program to find the sum of the series :

$$1 + \frac{1}{12} + \frac{1}{23} + \frac{1}{34} + \dots + \dots + \frac{1}{(n-1)n}$$

for given $x = 12$.*(Turn Over)*

7. Write a C program to count number of vowels and consonant in a given string.
8. Write a C program to store some values into a file and display these values.
9. Write a C program to find HCF and LCM of two numbers.
10. Write a C program to find the sum of e^x series up to n where ($n \leq 10$) and
$$e^x = 1 + \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \dots$$
11. Write a C program to sort a set of integers using insertion sort.
12. Write a C program to find the GCD and LCM between two numbers using functions.
13. Write a C program to reverse a 5 digit number and find its sum.
14. Write a C program to convert a given upper-case string to lower-case string.
15. Write a C program to determine whether a given year is a leap-year or not.
16. Write a C program to find the factorial for a given number without using recursion.
17. Write a C program to find the length of the string without using the `strlen()` function.
18. Write a C program to arrange the given 5 strings in alphabetical order.

Viva — 15 Marks

PNB — 05 Marks

Internal Assessment — 30 Marks
