

2024

COMPUTER SCIENCE — HONOURS — PRACTICAL

Paper : DSCC-2P

(Problem Solving Using C Lab)

Full Marks : 25

*The figures in the margin indicate full marks.*

**Set - 3**

**Marks Distribution :**

Experiment	:	15 (Source Code : 8, Algorithm : 4, Output : 3)
Viva voce	:	05
Laboratory Notebook	:	05

Answer *any one* question.

1. Write a program in C to display all prime factor of a number in descending order.

2. Write a program in C to find the value of  $x$  from following series :

$\cos(x) = 1 - \frac{x^2}{2!} + \frac{x^4}{4!} - \dots$  for all value of  $x$ . The program must be corrected up to 3 decimal places of accuracy.

3. Write a program in C to convert any number into its Roman Equivalent with following notation :

[1 → I, 2 → II, 5 → V, .... 10 → X, 50 → L, 100 → C, 500 → D, 1000 → M]

4. Write a program in C to
    - (a) copy one string into another without string function.
    - (b) compare two strings without string function.
  
  5. Write a program in C to check whether a given number is an armstrong number or not using function.
  
  
  6. Write a C program to find fibonacci series till the value  $m$ .
  
  
  7. Write a program in C to take an integer array as input and perform insertion operation at desired index position entered by the user. The data to be inserted is also taken as input.
  
  
  8. Write a program in C to check whether a string entered by the user is palindrome or not.
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