

**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 - 4**

**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 swap maximum and minimum elements in a matrix (2D-array). The matrix should be taken as input from user.
2. Write a program in C to add two complex numbers using structure. Display the result in proper format of complex number.
3. Write a program in C to find the number of characters, words and lines in a text file.
4. Write a program in C to find all prime-fibonacci numbers within the range  $m$  to  $n$ .  $m$  and  $n$  should be taken as input from user.

( 2 )

**B(2nd Sm.)-Computer Sc.-II/Pr./DSCC-2P/CCF/Set-4**

5. Write a program in C to find sum of the series,  $S = \frac{x}{1!} + \frac{x^2}{2!} + \frac{x^3}{3!} + \frac{x^4}{4!} + \dots$  up to  $n$  terms.  
 $x$  and  $n$  should be taken as input from user.
6. Write a program in C to find the largest word(s) from the content of a file.
7. Define a structure named 'student' which contains following fields :  
roll, name, marks in subject1 and marks in subject2.  
Write a program in C to find the name and roll no. of the student who achieved highest marks in each subject.
8. Write a program in C to find the longest line along with its length in a text file.
-