

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 - 2

Marks Distribution :

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

Answer *any one* question.

1. Write a C program to evaluate the sum of first  $n$  terms of the following series :

$$A = 1 + \frac{1}{2!} + \frac{1}{3!} + \frac{1}{4!} + \dots$$

2. Write a C program which accept 20 integers and display the frequency of occurrence of each distinct integer.
3. Write a program in C to print the following pattern. Take number of rows as input. For example, here the number of rows is 5. Also, include validity checking, i.e., this pattern is not possible for even number of rows.

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

4. Write a program in C to find maximum and second maximum numbers from an array with integers. Then swap these two numbers. Do not use any sorting technique.
  
  5. Write a program in C to input a sentence and print the words not containing vowels. For example, Input : Sky is blue, Output : sky.
  
  6. Write a program in C to multiply two matrices and store the result in a third matrix.
  
  7. Define a structure named Time with members hours, minutes and seconds. Write a C program to input two times, add them and display the result in proper time format.
  
  8. Define a structure named point, which contains two members  $x$  and  $y$  co-ordinates. Define another structure line, which contains two points  $p1$  and  $p2$  as members. Write a program in C to take two lines as input and check whether they are parallel or not.
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