



PRESIDENCY COLLEGE

(AUTONOMOUS)

AFFILIATED TO BENGALURU CITY UNIVERSITY, APPROVED BY AICTE, DELHI & RECOGNISED BY THE GOVT. OF KARNATAKA
RE-ACCREDITED BY NAAC WITH 'A+' GRADE

21C203.1C

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END TERM EXAMINATION DECEMBER 2022
BCA - I SEMESTER
GC203.1C: PROBLEM SOLVING TECHNIQUES

Duration: 2 Hours

Max Marks: 60

Instruction: Answers should be written in English only.

PART-A

Answer any **EIGHT** questions. Each question carries **TWO** marks.

(8 X 2 = 16)

1. What is an algorithm? Write its characteristics.
2. What is an Array? What are its types?
3. Write an algorithm to find square root of a number.
4. What is a pointer? How to declare a pointer in C?
5. Write the definition of time complexity and space complexity.
6. What are the rules for declaring variables in C?
7. What is sorting and searching?
8. Why C is called middle level language?
9. What is modular programming?
10. What is recursion? Give an example.

PART-B

Answer any **FOUR** questions. Each question carries **SIX** marks.

(4 X 6 = 24)

1. What is flowchart? Explain any five symbols used to draw flowchart.
2. Explain structure of C program with suitable example.
3. Write a C program to generate Fibonacci series.
4. Explain different types of user defined function.
5. Write a C program to find greatest common divisor of two integers.
6. Write the differences between structure and union in C.

PART-C

Answer **any TWO** questions. Each question carries **TEN** marks.

(2 X 10 = 20)

1. a) Explain any three different types of operators with examples.
b) What is String? Explain any two string functions.
2. Explain the features of C.
3. a) Explain different data types in C.
b) Write a C program to find kth smallest element in an array.
4. a) Write a C program to sort elements using bubble sort.
b) Write a note on command line arguments.
