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

GAIN MORE KNOWLEDGE REACH GREATER HEIGHTS

21C203.1C

REG NO: | | | | | | | | |

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

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. Define Flowchart.
2. Write any two characteristics of an algorithm.
3. Draw a flowchart for exchanging the values of two variables.
4. Write the syntax of conditional operator and give example.
5. Write the rules for declaring a variable in C.
6. What is function prototype?
7. How to declare and initialize two dimensional array?
8. Mention the types of parameters that can be passed to a function.
9. What is sorting? Mention any two sorting methods.
10. Write a note on command line arguments.

PART-B

Answer **any FOUR** *questions.* **Each** *question carries* **SIX** *marks.* **(4 X 6=24)**

1. Write an algorithm for reversing the digits of an integer and check whether the given integer is palindrome or not.

2. What is problem solving? Explain the steps followed by the computer to solve a given problem.

3. Define a String. Explain different operations that can be performed on a string with syntax and example.
4. Write a program to determine the Greatest Common Divisor of two integers.
5. Write a program to print the elements of an array in reverse order.
6. What is Bubble sort? With the given array elements {9, 3, 6, 1, 8} trace and perform sorting using Bubble sort.

PART-C

Answer **any TWO** *questions.* **Each** *question carries* **TEN** *marks.* **(2 X10=20)**

1. A) What is Flowchart? Explain the different symbols used in flowchart with an example.

   B) Write an algorithm to find the largest of two numbers.
2. A) What is an operator? Explain any two types of operators in detail.

   B) Explain in detail different iterative statements used in C.
3. Write a program in C to read, display and add two given matrices.
4. A) Write a program in C to perform Binary Search operation.

   B) Differentiate between Structure and Union.

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