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MCS–401/DCA–101

(MSCIT/DCA) Ist Semester Examination Dec., 2023

INTRODUCTION TO PROGRAMMING USING C

Time : 2 Hours]   [**Max. Marks :** 70

Note **:–** This paper is of Seventy (70) marks divided into two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given there in. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.***

Section–A

Long Answer Type Questions   2×19=38

Note **:–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. Describe the concept of "Function with arguments and with return with type" and "Function with arguments and no return type" with examples.

2. Write and explain the syntax of switch statement with an example.

3. Describe different Relational, Logical, Bitwise and Arithmetic operators available in C Programming Language.

4. Write a program in C to find out sum of digits of a given number using function.

5. How can you declare a single character "@" in terms of Character and String ? Write a program in C to read a String and count the number of words.

Section–B

Short Answer Type Questions   4×8=32

Note :– Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. Write a C-program using function to check whether the given number is prime or not.

2. Explain structure within a structure with an example.

K–987   (2)

3. Write a program in C to find the sum and mean of all elements in an array using pointers.

4. Explain different categories of pre-processor directives used in C.

5. Explain string manipulation library functions with their syntaxes. Write a program to check whether a string is palindrome or not.

6. What is an array ? How a single dimension and two dimension arrays are declared and initialized ?

7. Write an algorithm and develop a C program that reads N integer numbers and arrange them in ascending order using selection Sort.

8. Show how break and continue statements are used in a C-program, with example.

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K–987 (3)