

2023
B.A./B.Sc.
First Semester
CORE – 1
COMPUTER SCIENCE
Course Code: CSC 1.11
 (Programming Fundamentals Using C)

Total Mark: 70

Pass Mark: 28

Time: 3 hours

Answer five questions, taking one from each unit.

UNIT-I

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| 1. | (a) How can you write comments in a program? | 2 |
| | (b) Explain the scope of variables in C. | 4 |
| | (c) Explain the two types of data type casting in C. | 4 |
| | (d) Explain any two built-in mathematical functions in C. | 4 |
| 2. | (a) Write down the rules in naming a variable. | 2 |
| | (b) Explain keywords. | 3 |
| | (c) Explain symbolic constants. | 4 |
| | (d) Write down the various relational operators in C. | 5 |

UNIT-II

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| 3. | (a) Write a program that computes the sum of all positive numbers entered by the user. | 3 |
| | (b) Write a program to compute the sum of digits of a number and also reverses the number. | 5 |
| | (c) Explain the different loops in C. | 6 |
| 4. | (a) Explain the precedence of arithmetic operators. | 4 |
| | (b) Explain the switch control statement in C. | 4 |
| | (c) Explain the break and continue statements. | 6 |

UNIT-III

5. (a) Write a program that determines whether a string is a palindrome or not. 4
(b) Explain recursive function. 5
(c) Write a program that computes the transpose of a matrix. 5
6. (a) Write a program that counts the length of a string without using built-in function. 4
(b) Explain how array is passed as argument to a function. 5
(c) Explain the various types of arrays in terms of dimension. 5

UNIT-IV

7. (a) Write a program that accesses the members of a structure through the structure pointer. 4
(b) Explain the working of nested structure. 4
(c) Differentiate between structure and union. 6
8. (a) Explain the typedef data type. 3
(b) Discuss the union data type in C. 5
(c) Explain the two methods of passing structure to a function. 6

UNIT-V

9. (a) Explain the malloc() function. 4
(b) Explain the operators that are used with pointer variables. 4
(c) Explain the 6(six) file opening modes in C. 6
10. (a) Write a program that writes data to the text file in a program. 4
(b) Differentiate between static and dynamic memory allocation. 4
(c) Explain the 6(six) file handling functions in C. 1×6=6