D1ACS2104 **(2 Pages)** **Name.....**
Reg.No.....

FIRST SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2021
(Regular/Improvement/Supplementary)

COMPUTER SCIENCE
FCSS1C04 – THE ART OF PROGRAMMING METHODOLOGY

Time: 3 Hours **Maximum Weightage: 30**

Section A: Short answer questions. Answer any *four* questions. Each carries *two* weightage.

1. What are the advantages of using *call by reference* method over *call by value* method?
2. Describe type conversion with example.
3. Write a short note on various jump statements in C.
4. What are the different storage class specifiers?
5. Describe how bit fields are defined in C.
6. What are preprocessor directives?
7. What is destructor? Illustrate the use of destructor in C++.

(4×2 = 8 weightage)

Section B: Short essay questions. Answer any *four* questions. Each carries *three* weightage.

8. Illustrate various operators in C.
9. Explain how a C program is created and compiled in Linux platform.
10. Compare one dimensional array and two dimensional array. Illustrate how multi-dimensional array is represented in memory.
11. What is recursive function? Write a C program to find the reverse of a string using recursion.
12. Write a program to add two complex numbers using friend function.
13. What is a union and structure? How they differ from array?
14. Illustrate with example how pointers are passed to a function.

(4×3 = 12 weightage)

(P.T.O.)

Section C: Essay questions. Answer any *two* questions. Each carries *five* weightage.

15. Explain Algorithm and Flow chart. Draw Flow chart and Algorithm to find second largest number from the list of N numbers.
16. What is string library function? Explain various string functions. Write a C program to perform various string searching functions.
17. Explain OOP Concepts in C++.
18. What is file? What are various file modes? Explain I/O operations on file.

(2×5 = 10 weightage)