

# CSM33 - 'C' Programming and Data Structures

663

REG. NO

OCTOBER 2021

Time: Three hours

Maximum Marks: 75

- Note:
1. Answer ALL the questions in PART-A (1 mark each)
  2. Answer any ONE question from each unit in PART-B (3 marks each)
  3. Answer any ONE question from each unit in PART-C (10 marks each)
  4. The question paper contains TWO Pages

## PART-A (1x10=10)

1. Give any two importance of flowchart.
2. What are the basic data types in C?
3. What is the use of goto statement?
4. Give the general form of defining 1- d array.
5. List out any two math functions.
6. What are the types of storage class?
7. List out the types of linked list.
8. What is recursive function?
9. Define searching.
10. What is the principle used in bubble sort?

## PART-B (3x5=15)

### UNIT-I

11. Draw the structure of C program.
12. Give the rules for declaring variables.

### UNIT-II

13. What are the differences between while and do...while?
14. Give the general form of array within structure.

### UNIT-III

15. List out any two need user defined functions.
16. How will you access the address of variable through pointers?

### UNIT-IV

17. What is reverse polish notation?
18. State difference between queue and circular queue.

### UNIT-V

19. What are the different types of traversal?
20. What is in degree and out degree?

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PART-C (10x5=50)

UNIT-I

21. Discuss about the program development cycle in detail.
22. Explain the operator in C with the example.

UNIT-II

23. Differentiate between exit control loop and entry control loop with example.
24. Explain 1D and 2D array processing with example.

UNIT-III

25. How will you create user define function? Explain with example.
26. With suitable example, explain the character oriented function.

UNIT-IV

27. Explain how to inserting a node at the front of a list.
28. Explain algorithm to perform PUSH and POP operation.

UNIT-V

29. Explain binary searching method with suitable example.
30. Explain merge sort algorithm.

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