Reg. No. : ....

Name : ....

Fifth Semester B.Sc. Degree Examination, December 2022

First Degree Programme under CBCSS

Mathematics

Core Course VIII

MM 1545 : COMPUTER PROGRAMMING – I

(2013 Admission)

Time : 3 Hours   Max. Marks : 80

SECTION – I

All the first **ten** questions are compulsory. They carry **1** mark each.

1. Write the conditional iteration form.

2. What is a binary tree?

3. Explain shell.

4. What do you mean the shell csh?

5. What is a variable?

6. What is an operator?

7. Write the syntax of scanf statement.

8. Write the syntax of if statement.

9. What is a pointer variable?

10. Write the general format of structure definition.

(10 × 1 = 10 Marks)

SECTION – II

Answer any **eight** questions. **Each** question carries **2** marks.

11. Write the Treesort algorithm.

12. What is symbolic links?

13. State different data types supported by C language.

14. Write the relational operators supported by C language.

15. Explain the while statement.

16. Write a C program to find the sum of n numbers.

17. Explain strcmp( ) function.

18. Write a structure book_bank to hold the following informations title, author, pages, price.

19. Write the difference between the arrays and structures.

20. Explain arrays within structures.

21. Write a C program to find the factorial of a number.

22. Explain how to declare pointer variables.

(8 × 2 = 16 Marks)

SECTION – III

Answer any **six** questions. **Each** question carries **4** marks.

23. What is bubblesort? Write the bubblesort algorithm.

24. Explain vectors.

25. Explain the shells *ksh, sh.*

26. What permissions mean?

27. Write the rules for increment (++) operator?

28. Explain for statement with example.

29. What is one dimensional array? Write a C program to arrange 5 numbers in ascending order.

30. Explain (a) strcpy( ) function, (b) streln( ) function.

31. Explain structures and fucntions.

(6 × 4 = 24 Marks)

SECTION – IV

Answer any **two** questions. **Each** question carries **15** marks.

32. What is recursion? Explain how to find the solution of Towers of Hanoi problem?

33. Explain switch... case statement with example.

34. Write a C program to find the median of n numbers.

35. (a) Explain arrays of structures.
    (b) Write a C program using pointers to compute the sum of all elements stored in an array.

(2 × 15 = 30 Marks)

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