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Name : .....

Reg. No : .....

**SECOND SEMESTER B.Voc. DEGREE EXAMINATION, APRIL 2025**

(CBCSS-UG)

(Regular/Supplementary/Improvement)

**CC21U SDC2 PC04 - PROBLEM SOLVING USING C**

(Information Technology - Skill Component Course)

(2021 Admission onwards)

Time: 2 Hours

Maximum: 60 Marks

Credit: 3

**Part A** (Short answer questions)

Answer *all* questions. Each question carries 2 marks.

1. List any four importance of C.
2. What is the difference between j++ and ++j? Explain with example.
3. Explain with example the precedence of operators in arithmetic operations.
4. What are dynamic arrays?
5. Discuss the functions used for reading strings from terminal.
6. What is function prototype? Give the syntax of a function prototype.
7. Compare automatic and external variables.
8. What is structure? Explain the C syntax of structure declaration.
9. What are the rules of pointer operations?
10. What are the pointer variable and pointer expression?
11. Explain pointers and character strings.
12. Define malloc().

**(Ceiling: 20 Marks)**

**Part B** (Short essay questions - Paragraph)

Answer *all* questions. Each question carries 5 marks.

13. Explain with example, the various constants available in C language.
14. Define symbolic constants. What are the rules apply to #define statement which define a symbolic constant?
15. What is the purpose of scanf() and printf() statement ?
16. Explain the functioning of a switch statement. Illustrate with an example

17. Explain nesting of functions. Write a program to find the factorial of a number using recursion.
18. Write a C program to pass structure variable as function argument.
19. Discuss various input and output functions available in file.

**(Ceiling: 30 Marks)**

**Part C** (Essay questions)

Answer any *one* question. The question carries 10 marks.

20. What do you mean by precedence of operators? Explain with example.
21. Explain the different looping control structures available in C.

**(1 × 10 = 10 Marks)**

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