

2025

COMPUTER APPLICATION / INFORMATION TECHNOLOGY

Paper : CIT0100204-N

(Introduction to C-Programming)

Full Marks: 45

Time: 2 Hours

*The figures in the margin indicate full marks for the questions*

1. Answer the following questions: 1×5=5
- a) \_\_\_\_\_ is used to close a file. (*Fill in the blanks*)
  - b) There can be only one default case in the switch - case statement. (*State True or False*)
  - c) Which return type cannot return any value to the caller? (int / float / void)
  - d) A function must have at least one argument. (*State True or False*)
  - e) Why are arrays needed?
2. Answer the following questions (*any five*): 2×5=10
- a) What are the differences between constant and variable?
  - b) List the rules to define valid identifiers.
  - c) What is meant by associativity? What is the associativity of unary operators?
  - d) What is the difference between ++a and a++?
  - e) Why header files are included in 'C' programming?
  - f) What is the difference between an array and pointer?
  - g) What is the purpose of the function main()?
  - h) What are the statements used for reading a file.
  - i) How do function help to reduce the program size?
  - j) Distinguish between scanf() and fscanf().

(Turn Over)

3. Answer the following questions: (*any four*)

5×4=20

- a) What are bitwise operators? List them and explain their purpose.
- b) Explain switch case statement with suitable example.
- c) Explain the use of three loop control statements.
- d) Write difference between local and global variable with suitable programming examples.
- e) What is recursion? Explain a recursive function with suitable programming examples.
- f) Distinguish between call by value and call by reference.
- g) Compare structures and unions.
- h) Explain the use of break and continue statements in loops with a suitable example.
- i) Explain malloc() and calloc() operations in C Programming.

4. Answer the following questions: (*any one*)

10×1=10

- a) Write a C program to swap the values of two variables without using third variable.
  - b) Write a C program to store 10 numbers in an array. Then find out Sum, Maximum and Average of these 10 numbers.
  - c) Write a C program to find the transpose for a matrix.
  - d) Write a C program using pointers to determine the length of a character string.
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