

**Diploma (One Year) (B. Voc.) Semester-I (Software Development) Examination**

**SKILL DEVELOPMENT COMPONENT (Programming in 'C')**

**Paper—V**

Time : Three Hours]

[Maximum Marks : 70

- N.B. :—** (1) All questions are compulsory and carry equal marks.  
 (2) Illustrate your answer with suitable diagram.

**EITHER**

1. (a) What is flowchart ? List flowchart symbols. Explain giving suitable example. 7
- (b) Write an algorithm to find largest number from given three numbers. 7

**OR**

- (c) Give advantages and disadvantages of flowchart. 7
- (d) Write an algorithm and draw flowchart to find the sum of digits of a three digit No.  
 (Ex.  $123 = 1 + 2 + 3 = 6$ ) 7

**EITHER**

2. (a) Explain token in C. What is the difference between a single character constant and a string constant ? 7
- (b) What are the Primary data types in C ? Discuss them. 7

**OR**

- (c) Write a program in C to input the salary of a person. Calculate the dearness allowance as 15% of the salary and house rent allowance as 5% of the salary. After this determine the total salary. 7

- (d) Write notes on :

- (i) For statement
- (ii) While statement 7

**EITHER**

3. (a) Explain array by giving suitable example. Write a program in C to delete an element in one dimensional array. 7
- (b) Write a function to find the product of two numbers and another function to find their quotient. Call both these functions from main and make them return values of type float. 7

OR

(c) What do you mean by call by value and call by reference ? Explain by giving suitable example. 7

(d) What is recursion ? Write a program in C to find factorial of a given number using recursion. 7

EITHER

4. (a) What are structures ? Describe the terms structure tag, structure members. 7

(b) Describe the various file opening modes. What happens when a file is closed ? 7

OR

(c) What do you mean by nesting of structure ? Explain by giving suitable examples 7

(d) Write notes on :

(i) Address operator (&)

(ii) Void pointers

(iii) Pointers to pointers. 7

5. (a) What is the use of connectors in flowcharts ? Explain. 3½

(b) Explain qualifiers by giving suitable example. 3½

(c) Explain parameter passing in functions. 3½

(d) Explain initialization of structure by giving suitable example. 3½