21222

3 Hours / 70 Marks

Seat No.

15 minutes extra for each hour

Instructions : (1) All Questions are *compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

(5) Preferably, write the answer in sequential order.

Marks

1. Attempt any FIVE of the following : **10**

(a) Define the terms (i) Compiler (ii) Interpreter.

(b) Give syntax of if-else.

(c) Give use of break statement.

(d) Give any two math function.

(e) Define array and its syntax.

(f) State any four features of pointer.

(g) Define structure.

2. Attempt any THREE of the following : **12**

(a) Explain algorithm & flowchart.

(b) Write a program to find whether given number is positive, negative or zero.

(c) Explain strlen( ) & strcpy( ) function with example.

(d) Write a program to add two numbers using the call by value.

3. **Attempt any THREE of the following :** **12**

(a) Enlist any four types of arithmetic operator used in C and give one example of each.

(b) Write a program to add two matrices of 3×3 size, store addition in third matrix for given data element.

(c) Write a program to access the array elements using pointer.

(d) Explain how structure can be initialized with suitable example.

4. **Attempt any THREE of the following :** **12**

(a) Explain conditional and bitwise operator with example.

(b) Write a program to perform addition. subtraction, multiplication, and division using switch case statement for given data.

(c) Explain strcat( ) strcmp( ) with a suitable example.

(d) Write a program to display hexadecimal, decimal, octal, binary format of entered number.

(e) Write structure DATE having members day, month, year & assign initial values to that structure.

5. **Attempt any TWO of the following :** **12**

(a) (i) Differentiate between while( ) & do while( ).

(ii) Write a program to display even numbers in 1 to 100 using while( ).

(b) Write a C program to count the number of character present in the entered text without using string function.

(c) Explain call by reference with suitable example.

6. **Attempt any TWO of the following :** **12**

(a) Write a program to find highest marks in a class of n students using array.

(b) Explain scope of variable with suitable example.

(c) Write a program to access structure members using pointers.

_____