22226

23124

3 Hours / 70 Marks Seat No. ⬚⬚⬚⬚⬚⬚⬚⬚

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) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

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

a) Draw flowchart for checking whether given number is positive or negative.

b) list any four keywords used in 'C'.

c) State any two decision making statements.

d) Define array and list its type.

e) List the categories of user defined function.

f) Define pointer. Write syntax for pointer declaration.

g) Draw and label any four symbols used in flowcharts.

Marks

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

a) Draw flowchart for finding largest number among three numbers.

b) Write a program using switch statement to check whether entered character is VOWEL or CONSONANT.

c) Differentiate between character array and integer array with respect to size and initialization.

d) Explain pointer arithmetic operations with example.

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

a) State the use of print f( ) and scan f( ) with suitable example.

b) Explain any two string handling functions with syntax and example.

c) Describe the following terms:

   i) Keyword

   ii) Identifier

   iii) Variable

   iv) Constant

d) Write a program to find area of circle using user defined function.

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

a) Write algorithm and draw flowchart to print even numbers from 1 to 50.

b) Explain increment and decrement operator with example.

c) Write a program to sum all the odd numbers between 1 to 20.

d) Illustrate initialization of one dimensional array with example.

e) Difference between call by value and call by reference.

Marks

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

   a) Write a program to print fibonacci series starting from 0 and 1.

   b) Write a program for addition of two 3 × 3 matrices.

   c) Write a program to compute the sum of all elements stored in an array using pointer.

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

   a) Write a program to declare structure employee having data member name, age, city. Accept data for three employees and display it.

   b) Write a program to find factorial of a number using recursion.

   c) Write a program to accept two numbers from user and perform addition, subtraction, multiplication and division operations using pointers.

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