12526

3 Hours / 70 Marks   Seat No. ☐☐☐☐☐☐☐☐

Instructions – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

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

(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) Differentiate between do-while and while loop. (Any two points)

b) Define Algorithm and Flowchart.

c) Define array and list its types.

d) Explain '*' and '&' operator in pointer.

e) List any four math functions.

f) Enlist any four keywords used in 'C'.

g) Draw different symbols used in flowcharts.

Marks

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

  a) Explain following functions.

     i) getch ( )

     ii) putch ( )

  b) Write a program that accepts marks of 5 subjects. Calculate percentage and display grade of student from percentage. (Grade : Distinction, first class, second class, pass class, fail)

  c) Explain continue and break statements with example.

  d) Explain pointer arithmetic with example.

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

  a) Explain recursion with example.

  b) Write C program to find largest number among three numbers.

  c) Write a C program that will accept 5 data elements in array and arrange them in ascending order.

  d) Explain any two string functions with example.

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

  a) Define general structure of 'C' program.

  b) Differentiate between call by value and call by reference. (Any four points)

  c) Write a program to demonstrate concept of pointers to array.

  d) Explain two dimensional array with example.

  e) Write a program to calculate sum of all even numbers between 1 to 20.

Marks

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

a) Write a program using for loop to print

1

2   2

3   3   3

4   4   4   4

b) Write a program to print values of variables and their addresses.

c) Explain local variables and global variables with example.

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

a) Write a program to declare structure employee having data members name, age, street, city. Accept data for two employee and display it.

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

c) Write a C program to demonstrate how function returns a pointer.

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