

Time: 2 hour

Max. Marks: 60

NB: 1) Question No.1 is compulsory.

2) Attempt any three questions from question no. 2 to 6.

- Q1 Solve any three out of the following.** **15**
- A** Define Flowchart? Explain different symbols used in drawing Flowchart. **05**
- B** Difference between while loop & do-while loop. **05**
- C** Explain Different data type modifiers available in C language. **05**
- D** Write a program to print the following pattern for number of rows given by the user. **05**
- ```

1
21
321
4321

```
- E** Write a program to display all prime numbers from 1 to 50. **05**
- Q2** **15**
- A** Differentiate between break and continue. **05**
- B** Explain the following functions with proper example. **05**
- i) pow( ) ii) ceil( ) iii) floor( )
- C** Write a program to find value of y using recursive function , where  $y = x^n$  **05**
- Q3** **15**
- A** Explain the sizeof( ) operator with proper example. **05**
- B** Write a program to find the factorial of a given number. **05**
- C** Write a program to store and display the name, roll no. and fees of 100 students using structure. **05**
- Q4** **15**
- A** Write a short note on Structure. **05**
- B** Write a program to find the largest of 'n' numbers taken from user. **05**
- C** Explain conditional Operator with proper example. **05**
- Q5** **15**
- A** Explain flowing functions with proper example. **05**
- i) strcmp( ) ii) strcat ( ) iii) strlwr( )
- B** Write a program to accept the elements of square matrix and to find sum of elements present on, above and below principal diagonal. **05**
- C** Write a program to find square root of a accepted perfect square integer number **without** using standard sqrt( ) function. **05**
- Q6** **15**
- A** Write a program to add two numbers using user defined function. **05**
- B** Define array? Explain the static and dynamic initialization of 1D array. **05**
- C** Draw flowchart to find largest of Three numbers, accepted from user. **05**