

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) strlen()
- ☐ **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