



- Notes :
1. All questions are compulsory and carry equal marks.
 2. Draw neat and labelled diagram and use supporting data whenever necessary.
 3. Avoid vague answer and write specific answer related to question.

Either:

1. a) Define user defined function. Give the need of user defined function. 4
- b) Write a program in C to find factorial of a number using user defined function. 4

OR

- c) List all the types of user defined functions in C. Explain any one in detail. 4
- d) Explain the following with example. 4
 - i) Function prototype.
 - ii) Function call.

Either:

2. a) Define structure. Explain how to declare structure with suitable example. 4
- b) What is Nested structure? Explain with suitable example. 4

OR

- c) Explain the following 4
 - i) Union
 - ii) Period operator
- d) Define the structure having members roll no, name and marks of 3 subject p, c, m. Accept the information of 10 students and print them along with total marks. 4

Either:

3. a) Explain the concept of pointer to pointer with suitable example. 4
- b) Write a program in C to swap the contents of two variables using call by address. 4

OR

- c) What is pointer? Explain how to declare and initialize the value to pointer variable. 4
- d) Write a note on: 4
 - i) The address operator (&)
 - ii) The indirection operator (*)

Either:

4. a) Explain how to declare, open and close a file with suitable example. 4
- b) List the various error during I/O operations. Explain 4
- i) `feof()` ii) `ferror()`

OR

- c) Write a note on: 4
- i) `ftell()` ii) `rewind()`
- d) Write a program in C to display the contents of a text file. 4
5. Solve all the questions.
- a) Explain the following. 2
- i) `auto()` ii) `register()`
- b) What is union? Give the characteristics of union. 2
- c) Explain the concept of call by value. 2
- d) Write a short note on command line arguments. 2
