Unit I: Introduction to C, Basics

5-Mark Questions

1. List out formatted and unformatted functions in c with examples.
2. Define variable and constant in C. List the rules of a variable?
3. Difference between compiler and interpreter.
4. Explain about flowchart and its symbols? Give a suitable example.
5. What is an algorithm? Explain with example?

10 -Mark Questions

1. Explain the basic structure of a C program with a simple example.
2. Explain in detail the different types of operators in C with suitable examples.
3. What are the different data types in C? List and explain them briefly.
4. Explain input and output functions in C (scanf, printf, getchar, putchar) with examples.

Unit II: Control Structures

5-MarkQuestions

1. Differentiate between while and do-while loops with examples.
2. What is a switch statement? Write its syntax and mention two advantages.
3. Explain the use of break and continue statements with examples.
4. What is a nested loop? Give a simple C example using nested for loops.
5. Describe the use of switch–case with an example program.

10-Mark Questions

1. Explain in detail the different looping constructs in C (for, while, do-while) with syntax and examples.
2. Write a C program to display the multiplication table of a given number.
3. Write a C program to check whether a given number is even or not.
4. Explain about Decision making statements in C with suitable examples.

Unit III: Arrays and Strings

5-Mark Questions

1. Define an array in C. How do you declare and initialize a one-dimensional array?
2. What is a two-dimensional array? Give declaration and an example of accessing its elements.
3. Explain any 10 standard string functions from string.h with examples.
4. What is a string and write its declaration and initialization in C.

10-Mark Questions

1. Write a C program to read n numbers into an array and find the largest and smallest elements.
2. Explain in detail one-dimensional and two-dimensional arrays with examples.
3. Write a C program to add two matrices and display the result.
4. Discuss various string handling functions with syntax and examples.

Unit IV: Functions and Pointers

5-MarkQuestions

1. Explain about functions in C?
2. Write about scope of variables in C with examples.
3. Define a pointer. How do you declare and initialize a pointer variable?
4. Explain the relationship between arrays and pointers in C.

10-Mark Questions

1. Write a C program using a function to calculate the factorial of a number.
2. Discuss pointers in detail, including pointer arithmetic and pointers to variables. Give suitable examples.
3. Explain about recursive function with a program.
4. Write about parameter passing techniques in C.

Unit V: Structures and Files

5-Mark Questions

1. Define a structure in C. How do you declare and access structure members?
2. Differentiate between structure and array.
3. Write about structures using pointers with example.
4. Write the syntax of fopen, fclose, fscanf, and fprintf functions and state their purpose.
5. What is enum and explain with example.

10- Mark Questions

1. Explain structures in detail and write a C program to store and display information of n students using structures.
2. Discuss the concept of structure within structure (nested structures) with a suitable example.
3. Explain file handling functions in C for opening, reading, writing, and closing files, with examples.
4. Differentiate between Structures and Unions with suitable examples.
5. Explain structures and function with example.