1. Basic Programs

1. Write a program to print “Hello World”.
2. Write a program to add two numbers.
3. Write a program to swap two numbers using a temporary variable.
4. Write a program to find the size of int, float, char, and double.
5. Write a program to calculate the area of a circle.
6. Write a program to convert Celsius to Fahrenheit.
7. Write a program to find the ASCII value of a character.
8. Write a program to find the sum of two floating numbers.

2. Conditional Statements

1. Write a program to check whether a number is even or odd.
2. Write a program to check whether a number is positive, negative, or zero.
3. Write a program to find the largest among three numbers.
4. Write a program to check whether a year is a leap year or not.
5. Write a program to check whether a character is a vowel or consonant.
6. Write a program to find whether a number is divisible by 5 and 11 or not.
7. Write a program to calculate the grade of a student based on marks.

3. Looping (for, while, do-while)

1. Write a program to print numbers from 1 to 10.
2. Write a program to find the sum of first N natural numbers.
3. Write a program to find the factorial of a number.
4. Write a program to generate multiplication table of a number.

5. Write a program to count the digits in a number.
6. Write a program to reverse a number.
7. Write a program to check whether a number is palindrome or not.
8. Write a program to check whether a number is a prime number or not.
9. Write a program to find the sum of digits of a number.
10. Write a program to print Fibonacci series up to N terms.

4. Operators

1. Write a program to demonstrate the use of arithmetic operators.
2. Write a program to demonstrate relational operators.
3. Write a program to demonstrate logical operators.
4. Write a program to increment and decrement a variable.
5. Write a program to find the remainder without using the modulus operator.

5. Arrays

1. Write a program to store and display elements of an array.
2. Write a program to find the sum of array elements.
3. Write a program to find the maximum and minimum element in an array.
4. Write a program to count even and odd numbers in an array.
5. Write a program to copy elements of one array to another.
6. Write a program to sort an array in ascending order.
7. Write a program to search an element in an array (Linear Search).
8. Write a program for binary search.

6. Strings

1. Write a program to find the length of a string.
2. Write a program to copy one string into another.
3. Write a program to concatenate two strings.
4. Write a program to compare two strings.
5. Write a program to reverse a string.
6. Write a program to count vowels, consonants, digits, and spaces in a string.
7. Write a program to check whether a string is palindrome or not.

7. Functions

1. Write a function to find the factorial of a number.
2. Write a function to calculate the sum of digits of a number.
3. Write a function to check whether a number is prime.
4. Write a function to find the largest number among three numbers.
5. Write a recursive function to find Fibonacci series.
6. Write a function to swap two numbers using call by reference.

8. Pointers

1. Write a program to demonstrate pointer basics (declaring, initializing, and dereferencing).
2. Write a program to swap two numbers using pointers.
3. Write a program to demonstrate pointer to pointer.
4. Write a program to access array elements using pointers.
5. Write a program to demonstrate pointer arithmetic.

9. Dynamic Memory Allocation

1. Write a program to allocate memory for an array using malloc.
2. Write a program to allocate and initialize memory using calloc.
3. Write a program to reallocate memory using realloc.
4. Write a program to free dynamically allocated memory using free.
5. Write a program to dynamically create a 2D array.

10. Structures and Unions

1. Write a program to define and access a structure.
2. Write a program to initialize a structure and display its members.
3. Write a program to pass a structure to a function.
4. Write a program to demonstrate a union and show how memory is shared.
5. Write a program to use an array of structures.

11. File Handling

1. Write a program to create a file and write text to it.
2. Write a program to read text from a file.
3. Write a program to append text to an existing file.
4. Write a program to copy content from one file to another.
5. Write a program to count the number of characters, words, and lines in a file.