

# C programming Final Test

1. What is an array? What are the merits and demerits of array in C? Differentiate between one dimensional and two dimensional arrays with suitable example.
2. write a program to compute the sum of diagonal elements of a square matrix.
3. Write a program to read two integer X and Y and swap the contents of the variable x and Y using pointers.
4. What are embedded structure? Give an appropriate example for embedded structure.
5. Write C program to implement the following library function in C.

(i) strcpy

(ii) strcmp

6. Write a program in C that takes a string as input and find out the frequency of each character in the string.
7. Mention the difference between “call by value” and “call by reference” by writing a C program.
8. Write a C function isprime(num) that accepts an integer argument and returns 1 if the argument is a prime or 0 otherwise. Write a program that invokes this function to generate prime numbers between the given ranges
9. Write a program to find GCD and LCM of two numbers using concept of functions
10. Explain recursion. and write a program to find nth term of Fibonacci series.
11. Write a c-program using recursive function for Binary to Decimal Conversion.
12. Write a C program using pointers to compute the Sum, Mean and Standard deviation of all elements stored in an array of “n” real numbers
13. WAP to find the list of Armstrong numbers for a given range of number.
14. Check whether a string is Anagram or not. (Hint: Anagram: - if the letters from one string can be rearranged to form the other string e.g., Cola and coal is anagram hey and yah is not anagram)
15. Take 5 student data using structure array and print student info according to roll no. given by the user.
16. Take a 3 or more-digit number from user and check whether it is Armstrong or not.
17. Take input in a 2D array and pass it as a parameter in a function which transpose that array.