

XC9154 Programming In C

1. What are differences between 'a' and "a" ?
2. Write the logical expression to decide whether a given year is leap year ?
3. What are the difference between the postfix and prefix increment operators ?
4. Express for in terms of while statement?
5. Write a program to find the among a given set of numbers
6. Write a program to obtain the roots of quadratic equation $ax^2 + bx + c = 0$
7. Write a program to find the standard deviation of a set of given data
8. Write a program to find the difference between simple and compound interest for a principle amount p for n years at the rate of interest r.
9. What is the purpose of a function prototype?
10. Compare passing arguments by value and by address
11. What are the permissible pointer arithmetics?
12. What is the type of the name of an array?
13. Write a recursive function to find factorial of an integer and use it along with the built-in function pow(float,float) in a main program to evaluate $\cos x$ for a given value of x
14. Write a function swap to interchange two values and use it in a function to arrange a set of numbers in the ascending order and write a main program to use the above function
15. Explain the scope rules of variables with suitable examples
16. Compare array and structure
17. What is the difference between nested structure and self referential structure ?
18. Write down the prototypes of built-in file i/o function
19. What are effects of opening an existing file in the different modes "r","w","a"?
20. Write a data structure and use it in the main function to decide the elder person among two whose date of birth are given as date objects
21. Write a student structure with rollno, name, assessment and end semester marks and grade. Use it in a main function to receive the student data of a class and print the result with rollno, name and grade of each student
22. Write a program to read an existing text file and count the number of vowels present in it
23. Write a program to copy the contents of one file to another
24. How does modulus operator % work
25. What is the difference between a character constant and a string constant
26. Compare passing argument to a function by value and by address
27. Distinguish between built-in and user defined functions
28. How do you pass a function as a parameter to another function
29. What is a pointer
30. Distinguish between break and continue statements
31. What are permissible pointer arithmetics
32. What is a self referential structure
33. Write the prototypes of file i/o functions
34. Write a student structure with rollno, name, assessment and end semester marks and grades as members. Use it in a main function to receive the data of the student of a class and print the result with rollno, name and grade.
35.
 1. Write a program to find whether a given integer constant is prime or composite
 2. Write a program to multiply two compatible rectangular matrices
36.
 1. Write a program to find the smallest and greatest divisors of a given integer
 2. Write a program to obtain the sum of the digits of a positive integer constant n
37.
 1. Write a date structure and use it in a main function which takes the dates of birth of two

persons and decides who is elder or younger

2. Explain nested structures and self referential structures with simple suitable examples