

Must Solve C Programming Questions | All Basic C Programs Covered

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Explore 'C'

Articles

Practice Exercises

A promotional banner for FACE Prep's Data Structures & Algorithms Boot Camp. The background is a dark, grayscale image of two people shaking hands over a desk with papers. The text is white and orange. It asks if you want to land a 'Dream IT Product job?' and promotes the boot camp. The original price is crossed out as Rs.11,599, and the current price is Rs.5,999. There is an 'Enrol Now' button.

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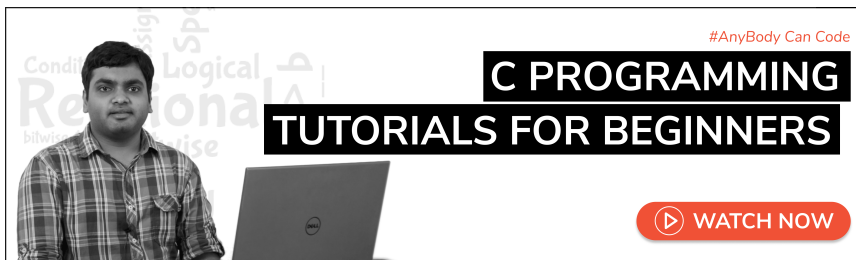
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Coding has become a crucial round of elimination in every company's recruitment process. Most beginners prefer to code in C than other languages like C++, Java, [Python](#), etc. With this in mind, we have exclusively listed **150+ most**

asked **C programming questions/examples** based on their difficulty level.

You can practice the below listed basic C programs in the order listed & in case you get stuck with the logic or the code, then revise your C programming basics with our [C programming Tutorials for Beginners](#).



Must Solve Basic C Programming Questions with Solutions

Basic C Programs on Control Statements (Looping) & Recursion

Easy

- [A character is a vowel or consonant](#)
- [A character is an alphabet or not](#)
- [Ascii values of a character](#)

- 1. Uppercase, Lowercase or special character
- 2. A number is positive or negative
- 3. A number is even or odd
- 4. Swap two numbers without third variable
- 5. Area of a circle
- 6. LCM of two numbers
- 7. GCD of two numbers
- 8. Greatest of two numbers
- 9. Greatest of three numbers
- 10. Number of digits in an integer
- 11. Sum of digits of a number
- 12. Sum of N natural numbers
- 13. Sum of numbers in a given range
- 14. Reverse a given number
- 15. Factorial of a number
- 16. Fibonacci series up to n
- 17. Leap year or not
- 18. Prime number or not
- 19. Palindrome or not
- 20. Armstrong number or not
- 21. Strong number or not
- 22. Perfect number or not
- 23. Friendly pair or not (amicable or not)
- 24. Automorphic number or not
- 25. Harshad number or not
- 26. Abundant number or not
- 27. Power of a number
- 28. Factors of a number
- 29. Add two fractions

Medium

- 1. Prime numbers in a given range
- 2. Armstrong numbers between two intervals
- 3. Can a number be expressed as a sum of two prime numbers?
- 4. Replace all 0's with 1 in a given integer
- 5. Binary to decimal conversion
- 6. Decimal to binary conversion
- 7. Decimal to octal conversion
- 8. Octal to decimal conversion
- 9. Binary to octal conversion
- 10. Octal to binary conversion
- 11. Maximum number of handshakes
- 12. Quadrants in which coordinates lie
- 13. Convert digit/number to words
- 14. Number of days in a given month of a given year
- 15. Permutations in which n people can occupy r seats in a theatre
- 16. Number of times digit 3 occurs in each and every number from 0 to n
- 17. Number of integers which has exactly 9 divisors
- 18. Roots of a quadratic equation
- 19. Count possible decodings of a given digit sequence

Pattern printing programs

- 1. Solid and hollow rectangle star pattern

- 2. Pyramid pattern using stars
- 3. Pyramid pattern using numbers
- 4. Palindromic pyramid pattern printing
- 5. Diamond pattern printing using stars
- 6. Diamond pattern printing using numbers
- 7. Floyd's triangle
- 8. Pascal triangle
- 9. All other pattern programs



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Basic C Programs on Strings

- 1. Basic string operations
- 2. Length of the string without using strlen() function
- 3. Toggle each character in a string
- 4. Count the number of vowels
- 5. Remove vowels from a string
- 6. String is a palindrome or not
- 7. Sorting a string in alphabetical order
- 8. Removing brackets from an algebraic expression
- 9. Remove characters in a string except alphabets

- 10. Remove spaces from a string
- 11. Count the sum of numbers in a string
- 12. Capitalize the first and last letter of each word of a string
- 13. Frequency of characters in a string
- 14. Non-repeating characters in a string
- 15. Check if two strings are Anagram or not
- 16. Patterns of $O(1+)$ 0 in the given string
- 17. Replace substring in a string
- 18. Count common subsequence in two strings
- 19. Reverse a string
- 20. Check if two strings match where one string contains wildcard characters

Arrays

1-D Arrays

- 1. Basic array operations (Insert, delete and search an element)
- 2. Smallest and largest element in an array
- 3. Sum of elements in an array
- 4. Check if two arrays are the same or not
- 5. Finding the array type
- 6. Sum of positive square elements in an array
- 7. Second smallest element in an array

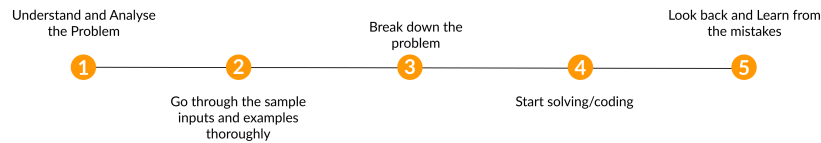
- 8. Sorting the elements of an array
- 9. Reversing an array
- 10. Longest palindrome in an array
- 11. Count distinct elements of an array
- 12. Non-repeating elements of an array
- 13. Repeating elements in an array
- 14. Remove duplicate elements in an array
- 15. Minimum scalar product of two vectors
- 16. Maximum scalar product of two vectors
- 17. Can the numbers of an array be made equal?
- 18. Missing elements of a range
- 19. Triplets with a given sum
- 20. Number of even and odd elements in an array
- 21. Frequency of each element of an array
- 22. Symmetric pairs in an array
- 23. Maximum product subarray in a given array
- 24. Arrays are disjoint or not
- 25. Array is a subset of another array or not
- 26. Can all numbers of an array be made equal
- 27. Minimum sum of absolute difference of given array
- 28. Sorting elements of an array by frequency
- 29. Sort an array according to the order defined by another array
- 30. Replace each element of the array by its rank in the array
- 31. Equilibrium index of an array
- 32. Array rotation - Left and right
- 33. Block swap algorithm for array rotation
- 34. Juggling algorithm for array rotation
- 35. Circular rotation of an array by K positions

- 36. Convert an array into a zig-zag fashion
- 37. Merge two sorted arrays
- 38. Longest subarray having an average greater than or equal to k
- 39. Rearrange positive and negative numbers in an array
- 40. Sum of all odd frequency elements in an array
- Median of two sorted arrays
- 0-1 Knapsack problem

2-D Arrays

- 1. Matrix operations (Addition, subtraction and multiplication)
- 2. Transpose of a matrix
- 3. Upper triangular matrix or not
- 4. Lower triangular matrix or not
- 5. The maximum element in a row
- 6. The maximum element in a column
- 7. Sum of each row and column of a matrix
- 8. Saddle point coordinates of a given matrix
- 9. Sum of elements in the zig-zag sequence of a matrix
- 10. Sum of boundary elements of a matrix
- 11. Matrix printing in spiral form
- 12. Rotate the matrix by K times
- 13. Matrix rotation by 90 degrees clockwise and anticlockwise
- 14. Maximum size of square submatrix with all 1s in a binary matrix

The Preferred Approach For Above Listed C Programming Questions



Suggestions :

- [Learn Python Programming for Beginners](#)
- [Learn Most Asked Data Structures Programs in C, C++, Java](#)

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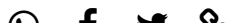
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