

- How do you write a program which produces its own source code as its output?
- How can I find the day of the week given the date?
- Why doesn't C have nested functions?
- What is the most efficient way to count the number of bits which are set in a value?
- How can I convert integers to binary or hexadecimal?
- How can I call a function, given its name as a string?
- How do I access command-line arguments?
- How can I return multiple values from a function?
- How can I invoke another program from within a C program?
- How can I access memory located at a certain address?
- How can I allocate arrays or structures bigger than 64K?
- How can I find out how much memory is available?
- How can I read a directory in a C program?
- How can I increase the allowable number of simultaneously open files?
- What's wrong with the call "fopen("c:\newdir\file.dat", "r")"?
- What is the output of printf("%d")
- What will happen if I say delete this
- Difference between "C structure" and "C++ structure".
- Difference between a "assignment operator" and a "copy constructor"
- What is the difference between "overloading" and "overriding"?
- Explain the need for "Virtual Destructor".
- Can we have "Virtual Constructors"?
- What are the different types of polymorphism?
- What are Virtual Functions? How to implement virtual functions in "C"
- What are the different types of Storage classes?
- What is Namespace?
- What are the types of STL containers?.
- Difference between "vector" and "array"?
- How to write a program such that it will delete itself after execution?
- Can we generate a C++ source code from the binary file?
- What are inline functions?
- Talk something about profiling?
- How many lines of code you have written for a single program?
- What is "stringstream" ?
- How to write Multithreaded applications using C++?
- Explain "passing by value", "passing by pointer" and "passing by reference"
- Write any small program that will compile in "C" but not in "C++"
- Have you heard of "mutable" keyword?
- What is a "RTTI"?
- Is there something that I can do in C and not in C++?
- Why preincrement operator is faster than postincrement?
- What is the difference between "calloc" and "malloc"?

- What will happen if I allocate memory using "new" and free it using "free" or allocate using "calloc" and free it using "delete"?
- What is Memory Alignment?
- Explain working of printf.
- Difference between "printf" and "sprintf".
- What is "map" in STL?
- When shall I use Multiple Inheritance?
- What are the techniques you use for debugging?
- How to reduce a final size of executable?
- Give 2 examples of a code optimization.
- What is inheritance?
- Difference between Composition and Aggregation.
- Difference: Sequence Diagrams, Collaboration Diagrams.
- Difference: 'uses', 'extends', 'includes'
- What shall I go for Package Diagram?
- What is Polymorphism?
- Is class an Object? Is object a class?
- Comment: C++ "includes" behavior and java "imports"
- What do you mean by "Realization"?
- What is a Persistent, Transient Object?
- What is the use of Operator Overloading?
- Does UML guarantee project success?
- Difference: Activity Diagram and Sequence Diagram.
- What is association?
- How to resolve many to many relationship?
- How do you represent static members and abstract classes in Class Diagram?
- What does static variable mean?
- What is a pointer?
- What is a structure?
- What are the differences between structures and arrays?
- In header files whether functions are declared or defined?
- What are the differences between malloc() and calloc()?
- What are macros? what are its advantages and disadvantages?
- Difference between pass by reference and pass by value?
- What is static identifier?
- Where are the auto variables stored?
- Where does global, static, local, register variables, free memory and C Program instructions get stored?
- Difference between arrays and linked list?
- What are enumerations?
- Describe about storage allocation and scope of global, extern, static, local and register variables?
- What are register variables? What are the advantage of using register variables?

- What is the use of typedef?
- Can we specify variable field width in a scanf() format string? If possible how?
- Out of fgets() and gets() which function is safe to use and why?
- Difference between strdup and strcpy?
- What is recursion?
- Differentiate between a for loop and a while loop? What are its uses?
- What are the different storage classes in C?
- Write down the equivalent pointer expression for referring the same element a[i][j][k][l]?
- What is the difference between Structure and Unions?
- What are the advantages of using Unions?
- What are the advantages of using pointers in a program?
- What is the difference between Strings and Arrays?
- In a header file whether functions are declared or defined?
- What is a far pointer? where we use it?
- How will you declare an array of three function pointers where each function receives two ints and returns a float?
- What is a NULL Pointer? Whether it is same as an uninitialized pointer?
- What is a NULL Macro? What is the difference between a NULL Pointer and a NULL Macro?
- What does the error 'Null Pointer Assignment' mean and what causes this error?
- What are near, far and huge pointers? How many bytes are occupied by them?
- How would you obtain segment and offset addresses from a far address of a memory location?
- Are the expressions arr and &arr same for an array of integers?
- Does mentioning the array name give the base address in all the contexts?
- Explain one method to process an entire string as one unit?
- What is the similarity between a Structure, Union and enumeration?
- Can a Structure contain a Pointer to itself?
- How can we check whether the contents of two structure variables are same or not?
- How are Structure passing and returning implemented by the compiler?
- How can we read/write Structures from/to data files?
- What is the difference between an enumeration and a set of pre-processor # defines?
- What do the 'c' and 'v' in argc and argv stand for?
- Are the variables argc and argv local to main?
- What is the maximum combined length of command line arguments including the space between adjacent arguments?
- If we want that any wildcard characters in the command line arguments should be appropriately expanded, are we required to make any special provision? If yes, which?

- Does there exist any way to make the command line arguments available to other functions without passing them as arguments to the function?
- What are bit fields? What is the use of bit fields in a Structure declaration?
- To which numbering system can the binary number 1101100100111100 be easily converted to?
- Which bit wise operator is suitable for checking whether a particular bit is on or off?
- Which bit wise operator is suitable for turning off a particular bit in a number?
- Which bit wise operator is suitable for putting on a particular bit in a number?
- Which bit wise operator is suitable for checking whether a particular bit is on or off?
- which one is equivalent to multiplying by 2: Left shifting a number by 1 or Left shifting an unsigned int or char by 1?
- Write a program to compare two strings without using the strcmp() function.
- Write a program to concatenate two strings.
- Write a program to interchange 2 variables without using the third one.
- Write programs for String Reversal & Palindrome check
- Write a program to find the Factorial of a number
- Write a program to generate the Fibonacci Series
- Write a program which employs Recursion
- Write a program which uses Command Line Arguments
- Write a program which uses functions like strcmp(), strcpy()? etc
- What are the advantages of using typedef in a program?
- How would you dynamically allocate a one-dimensional and two-dimensional array of integers?
- How can you increase the size of a dynamically allocated array?
- How can you increase the size of a statically allocated array?
- When reallocating memory if any other pointers point into the same piece of memory do you have to readjust these other pointers or do they get readjusted automatically?
- Which function should be used to free the memory allocated by calloc()?
- How much maximum can you allocate in a single call to malloc()?
- Can you dynamically allocate arrays in expanded memory?
- What is object file? How can you access object file?
- Which header file should you include if you are to develop a function which can accept variable number of arguments?
- Can you write a function similar to printf()?
- How can a called function determine the number of arguments that have been passed to it?
- Can there be at least some solution to determine the number of arguments passed to a variable argument list function?
- How do you declare the following:
- An array of three pointers to chars

- An array of three char pointers
- A pointer to array of three chars
- A pointer to function which receives an int pointer and returns a float pointer
- A pointer to a function which receives nothing and returns nothing
- What do the functions atoi(), itoa() and gcvt() do?
- Does there exist any other function which can be used to convert an integer or a float to a string?
- How would you use qsort() function to sort an array of structures?
- How would you use qsort() function to sort the name stored in an array of pointers to string?
- How would you use bsearch() function to search a name stored in array of pointers to string?
- How would you use the functions sin(), pow(), sqrt()?
- How would you use the functions memcpy(), memset(), memmove()?
- How would you use the functions fseek(), fread(), fwrite() and ftell()?
- How would you obtain the current time and difference between two times?
- How would you use the functions randomize() and random()?
- How would you implement a substr() function that extracts a sub string from a given string?
- What is the difference between the functions rand(), random(), srand() and randomize()?
- What is the difference between the functions memmove() and memcpy()?
- How do you print a string on the printer?
- Can you use the function fprintf() to display the output on the screen?
- What is an object?
- What is the difference between an object and a class?
- What is the difference between class and structure?
- What is public, protected, private?
- What are virtual functions?
- What is friend function?
- What is a scope resolution operator?
- What do you mean by inheritance?
- What is abstraction?
- What is polymorphism? Explain with an example.
- What is encapsulation?
- What do you mean by binding of data and functions?
- What is function overloading and operator overloading?
- What is virtual class and friend class?
- What do you mean by inline function?
- What do you mean by public, private, protected and friendly?
- When is an object created and what is its lifetime?
- What do you mean by multiple inheritance and multilevel inheritance? Differentiate between them.

- Difference between `realloc()` and `free`?
- What is a template?
- What are the main differences between procedure oriented languages and object oriented languages?
- What is R T T I ?
- What are generic functions and generic classes?
- What is namespace?
- What is the difference between pass by reference and pass by value?
- Why do we use virtual functions?
- What do you mean by pure virtual functions?
- What are virtual classes?
- Does c++ support multilevel and multiple inheritance?
- What are the advantages of inheritance?
- When is a memory allocated to a class?
- What is the difference between declaration and definition?
- What is virtual constructors/destructors?
- In c++ there is only virtual destructors, no constructors. Why?
- What is late bound function call and early bound function call? Differentiate.
- How is exception handling carried out in c++?
- When will a constructor executed?
- What is Dynamic Polymorphism?
- Write a macro for swapping integers.