**TCS Technical interview Questions**

1. What is your strongest programming language (Java, ASP, C, C++, VB, HTML, C#, etc.)? 

2. Basic concepts of C++ like --- pointer, function overloading, friend function & its advantage ?  
   Pointer is a variable in a program is something with a name, the value of which can vary. The way the compiler and linker handles this is that it assigns   
   a specific block of memory within the computer to hold the value of that variable.

Function overloading is a feature of C++ that allows us to create multiple functions with the same name, so long as they have different parameters.Consider the following function:  
   int Add(int nX, int nY)  
    {  
      return nX + nY;  
    }  
  
A friend function for a class is used in object-oriented programming to allow access to public, private, or protected data in the class from the outside.  
Normally, a function that is not a member of a class cannot access such information; neither can an external class. Occasionally, such access will be advantageous for the programmer. Under these circumstances, the function or external class can be declared as a friend of the class using the friend keyword.

3.What is the difference between null and void pointer?  
   A Null pointer has the value 0. void pointer is a generic pointer introduced by ANSI. Generic pointer can hold the address of any data type.   
      
4. Write a program to add two numbers in C++ using classes.

5. Tell me something about abstract classes?

6. Can you list out the areas in which data structures are applied extensively?

7. what are the two integrity rules used in DBMS?

8. Tell something about deadlock and how can we prevent dead lock?

9. What is Insertion sort, selection sort, bubble sort( basic differences among the functionality of the three sorts and not the exact algorithms)  
10. What is Doubly link list?

11. Write a program that takes a 3 digit number n and finds out whether the number 2^n + 1 is prime, or if it is not prime find out its factors.    

12. What is the best algorithm to sort out unique words from a list of more than 10 million words(1 crore+)? we need the best technique in the terms of execution         time.

13. What is scope of a variable?     

14. What is data Abstraction? Explain three levels of data abstraction and give example    

15. How to swap two numbers with out using temp variable?    

17. What is the Maximum Size that an Array can hold?    

18.What is debugger?  
   A debugger or debugging tool is a computer program that is used to test and debug other programs

19. Const char \* char \* const What is the difference between the above two?    

20. What is Memory Alignment?     

21.Explain the difference between 'operator new' and the 'new' operator?    

22. Difference between delete and delete[]?    

23. What is conversion constructor?    

24. What is a constructor initializer list and when we use constructor initializer list?    

25. What is the order of initialization for data?

26. Explain Linux file types?    

27. Why should we use data ware housing and how can you extract data for analysis with example?

28.Explain recursive function & what is the data structures used to perform recursion?

29.What are the different cost elements involved in implementing a process in an organization?

30.16.What is an interrupt?