**C++ Question Bank**

1. Explain different programming paradigms.
2. Explain Preprocessor directives with examples.
3. List and Explain operators in C. Also write operator precedence.
4. What is Macro? List and explain different types of Macros with examples.
5. What is C++ ? Compare C with C++. Justify how C++ is better than C.
6. Explain the features of object oriented programming language**. OR** Explain in brief characteristics of OOPs **.OR** Explain the features of object oriented programming language and also write the difference between C++ and C language.
7. Explain OOP principles.
8. Explain all control structures with suitable example.
9. Define constructors and destructors in C++.Explain different types of constructors with example. **OR** What is constructor? Explain types of constructor with example.
10. What is inline function? What is its use? In what situations inline functions are not recommended?
11. Explain the use of static function in a class with example. **OR** Explain static variable and static function.
12. Write a program to create class Person with age , name, address as a member variables and write functions getdata and putdata to accept and display the details.
13. What is constructor? Write a program to overload copy constructor.
14. Explain concept of method overloading and constructor overloading in C++.
15. Create account class. Add methods to create account ,deposits, withdraw money. Provide sample run of the program.
16. Define a class CHARARRAY with an array of characters. The class should contain a member function to reverse the array and print. Write a C++ program to implement above mentioned class.
17. Define a class stack with the following members :-
    1. Data members
       1. Char array
       2. Int top
    2. Member Functions
       1. Constructor
       2. Push()
       3. POP()
       4. Check-overflow()
       5. Check-underflow()

Write a program in C++ to implement above mentioned stack class.

1. Define static data. Explain how static variables are declared and used.
2. Difference between Constructors and member functions(5)
3. Difference between local variables and global variables(5)
4. Write Time(HH:MM:SEC) class. Implement functions to add minutes, subtract minutes from the given time object. Use proper validations to accept correct time.
5. Define a class to represent a Bank account. Include following members:-
   1. Data members
      1. Name
      2. Account-No
      3. Balance
   2. Member functions
      1. To assign initial values
      2. To deposit an amount
      3. To withdraw an amount
      4. To display the balance

Use a static variable to store the No of accounts created. Write the main function to implement the class

1. Explain the concept of pass by reference and return by reference.
2. When is a copy constructor invoked? Write a program with a class ABC, with integer type data member. Overload the copy constructor.
3. What are C-type strings? How are they different from strings defined by standard C++ string class?
4. Explain the use of string functions.
5. Write a program to display first n Fibonacci numbers.
6. Write a program to reverse the read string.
7. Write a program to covert a decimal into it’s binary representation using recursion.
8. Write a program to read 10 numbers from keyboard and display them in ascending order after sorting.
9. Write a program to display sum and count of all numbers between 100 and 200 which is divisible by 7.
10. Write a program to check the given no is prime or not.
11. Difference between Call by reference and Call by Value
12. What is structure? How to initialize structure variable? Explain array of structures with suitable example.
13. Difference between Union and Structure.
14. Difference between Actual parameter and Formal parameter.
15. Write a short note on:
    1. Inline function
    2. Constant data members and Functions
    3. Access modifiers
    4. Control structure
    5. Function overloading
    6. Multidimensional array
    7. Data types in C++
    8. OOP concepts
    9. Constants in C++
    10. Abstract Classes
    11. Scope resolution operator
    12. Manipulators
    13. Preprocessor directives
    14. Operators in C++