

NCR Corporation Technical Questions Paper

Programming in C/C++/MFC/Java

Q1. Program for rotation of a string (program finds out & prints the number of ways the letters of a given string may be arranged).

Q2. Write a program that uses merge sort to sort a specific list (Array).

OS Concepts

Q1. What is concurrency. Explain with example deadlock & starvation

Q2. Explain Multi Tasking, Multi Programming, Multi Threading. Specify the difference between MultiTasking & MultiThreading.

Q3. What is MUTEX. Specify differences between thread & process. Explain threads, critical section, MT safety, Lightweight process.

Q4. Program for Multi Threaded file reading.

Q5. Different tasks of Lexical Analysis. Different functions of syntax phase, scheduler.

OOPS/C++

Q1. What is Namespace, use of “using” declaration. Define Virtual class & friend class. Base Virtual class & friend class. When to use Multiple Inheritance.

Q2. Explain STL containers & stringstream. When is a template better solution than a base class?

Q3. How do know that your class needs a virtual destructor?

Q4. Difference between assignment operator & copy constructor. How to handle error when the constructor fails?

Q5. What are public, private, protected, friendly? Explain.

Q6. Difference between C++ struct & C++ class. When is template a better solution than a base class?

RDBMS

Q1. Given five queries. Have to find the output/error.

Q2. Given three table structures. Queries on the given data.

Unix:

Q1. Program to work on semaphores.

Q2. Program to print processID, ParentProcessID & GroupID.

Q3. Program to find , maximum number of concurrent process.

Q4. Program such that output of one program is input of another program using pipes

Q5. Implement a single client server program using FIFO.

Q6. Implement Cat command using system calls.

Q7. Two questions on merge sort using message queues.

Q8. Explain case statements with example.

Q9. Shell program to determine last day of month.