Round 1- Online Coding

Programming (3 - questions)

1. Easy question - You're given n apples of different weights and you have to put them in minimum number of bags. Each bag can hold 2 apples and the maximum weight it can hold is X kgs. Print the minimum number of bags required.
2. Medium - Given an integer array and a number k, find primeSum which is equal to sum of all the prime factors of each element in the array modulus 10^6. Find the number of ways in which a set of ‘primeSum’ number of 0’s can be divided into k subsets modulus (10^9 +7). - require O(nlogn)
3. Hard - Graph question (variant of travelling salesman) - there’s no polynomial time solvable exact solution, so you should just write a program giving approximate answer.

Essay (200 words)

1. What made you choose this course(CSE etc) and what are you planning to do?
2. Your friend was sick and somehow she got a copy of the question paper and she gave you a copy of it. What would you do?

Objective questions (18 questions)

Most of the questions were from quant (probability, permutation and combination) and very few from Operating Systems (semaphores and banker's algorithm. - see previous gate questions)

Interview Questions

The questions asked will be based on the answers you give to the previous questions.

1. Why GS?
2. Given an infinite stream of sorted numbers find a given element k --- (solution - exponential search)
3. They ask a lot of questions from the resume - focus on projects
4. Almost everyone is asked 3 questions
5. Reverse a linked list
6. Given a number and an array, find any two numbers which sum up to the given number in O(n)
7. Given a set of points with x and y coordinates write a program to find the two points with maximum slope.
8. Find mean, mode and median in the given graph --- (for those who had machine learning in their resume)
9. Time complexity of algorithms
10. Probability questions