

# Debug With Shubham Notes

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NQT 2025

# Interview Questions

## Prime Role 2025

# Interview Structure for All Roles

Introduction round

2 Technical questions

HR questions

Role-specific questions

Opportunity for candidate to ask questions

## Role-Specific Interview Questions

### 1. TCS Prime Role Questions Technical Questions (Expert Level)

Data Structures and Algorithms (DSA)

Project Question Deep

Problem Solving & Competitive Coding

system Design (For Prime)

Core CS Subjects

HR Interview Questions (Prime Candidates)

managerial round

# Data Structures and Algorithms (DSA)

Implement LRU Cache.

Kth largest element in an unsorted array.

Find the shortest path in a weighted graph (Dijkstra's Algorithm)

Design a stack that supports getMin() in O(1) time.

Explain Trie and implement basic insert/search operations.

Explain CAP theorem.

# **Problem Solving & Competitive Coding**

Solve a dynamic programming problem like Longest Increasing Subsequence (LIS)

Sliding Window Technique: Maximum sum subarray of size k

Bit Manipulation: Count the number of set bits in an integer.

Dynamic Programming: 0/1 Knapsack

Graph: Dijkstra, BFS/DFS, Topological Sort

Backtracking: N-Queens Problem.

# **System Design (For Prime)**

How would you design an online ticket booking system?

Design a rate limiter (like in APIs).

Explain scalability and availability with examples.

# Core CS Subjects

Operating System:

What is a thread? Difference between thread and process?

Explain deadlock detection and prevention.

DBMS:

What is a transaction? Explain ACID properties.

Write SQL queries for complex joins and nested subqueries.

Computer Networks:

Explain TCP 3-way handshake.

How does DNS work?

## **HR Interview Questions (Prime Candidates)**

Introduce yourself with emphasis on your projects and leadership skills.

Why TCS Prime and not Ninja/Digital?

How do you stay updated with technology?

Tell us about a technical challenge you overcame.

How do you prioritize work under pressure?

Any internship or open-source contributions you're proud of?

# Project-Based Questions

1- Explain your project in detail.

What problem does it solve?

What technologies did you use?

How did you contribute specifically?

2- What was the architecture of your project?

Can you draw the flow or explain using a diagram?

Was it monolithic or microservices?

3- Why did you choose this tech stack?

Why React over Angular?

Why MySQL instead of MongoDB?

4- What challenges did you face, and how did you solve them?

Eg: API failures, large dataset handling, performance issues

5- How did you handle security in your project?

Did you implement authentication/authorization?

What about input validation or HTTPS?

6- How did you optimize the performance of your project?

Any caching, lazy loading, or query optimization?

7- If your project had multiple modules, how did you manage them?

Modular design? MVC pattern?

8- Did you use version control tools like Git?

How did you manage branches, conflicts?

9- How did you test your project?

Unit tests? Integration tests? Manual testing?

# Managerial round

## Decision making scenarios

What would you do if you're assigned a task that you've never done before and the deadline is very tight?

If you have multiple high-priority tasks, how do you decide what to do first?

What will you do if a teammate isn't contributing enough and it's affecting the project timeline?

You realize your code caused a bug in production. What steps will you take?

## Product mindset questions

If you were designing an app for online grocery delivery, what features would you prioritize?

Your team suggests a technically cool feature, but it adds no value to the end user. What do you do?

How do you ensure the product you're building is user-friendly and scalable?

Tell us about a time you thought of a better way to improve your project or feature.

## Leadership examples

Tell me about a time you led a team or initiative

How do you motivate a demotivated team member?

Share an instance where you resolved a conflict in your team.

What does ownership mean to you in a professional setting?