Analysis of CEI Placement Drive

# Eligibility

* B.Tech / M.Sc in CS only
* Minimum 60% in 10th, 12th, and Degree

# Role & Required Skills

* **Position**: Trainee Software Engineer
* **Required Skills**:
  + C, C++, .NET, Java (any one or more)
  + OOPS concepts
  + Problem-solving
  + SQL/Oracle
  + SDLC knowledge
  + Basic algorithms, data structures
  + Programming arrays
  + Web development (basic understanding)
  + Knowledge of Testing Life Cycle

## Salary: CTC ₹5 LPA

# Selection Process Breakdown

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| --- | --- | --- |
| Round | Type | Focus Area |
| 1st | Written Test | Logical Aptitude, Technical MCQs, OOPS, C/C++/Java Basics |
| 2nd | Algorithm Test | Coding problems (DSA basics, array, string, logic building) |
| 3rd | Technical Interviews | OOPS, SQL, SDLC, projects, programming knowledge |
| 4th | HR Interview | Communication, attitude, behavioral fit |

# Comprehensive Study Plan (3-Week Track)

**Time Required**: ~4-5 hours/day for 3 weeks

## Week 1: Core Foundations & Aptitude

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| Day | Topics |
| 1-2 | Logical Reasoning, Aptitude (Time, Work, Probability, Number Series) – Practice from IndiaBix or PrepInsta |
| 3-4 | OOPS Concepts in Java/C++/.NET (Classes, Inheritance, Polymorphism, Abstraction, Encapsulation) |
| 5 | C/C++ Syntax + Pointers + Memory Management |
| 6 | Java Basics + Exception Handling + Collections overview |
| 7 | .NET and/or Python (Basics if time permits) |

## Week 2: Coding, SQL, and SDLC

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| Day | Topics |
| 1-2 | Arrays, Strings – Practice 10-15 problems on each from LeetCode (Easy Level) |
| 3 | Basic Sorting, Searching, Recursion |
| 4 | SQL (Joins, Aggregates, Subqueries) – Use HackerRank SQL practice |
| 5 | Oracle/Database concepts (Normalization, Indexing, Transactions) |
| 6 | SDLC – Waterfall, Agile, Phases (Requirement, Design, Testing, Maintenance) |
| 7 | Project-based prep – Prepare to talk about your college project (motivation, tech stack, challenges) |

## Week 3: Mock Tests, Interview Prep, Web + Testing Basics

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| Day | Topics |
| 1 | Attempt full-length Aptitude + Technical Mock Test |
| 2 | Coding round mock (2 problems – Arrays, HashMap, Recursion) |
| 3 | Behavioral Questions – “Tell me about yourself,” “Strengths,” “Why CEI?” |
| 4 | Web Dev basics (HTML, CSS, JS – just fundamentals) |
| 5 | Testing Life Cycle + Manual Testing Basics |
| 6 | Revise SDLC + Database + Projects |
| 7 | Final HR Prep + Technical Revision (Flashcards, formulae, notes) |

# Smart Tips to Crack CEI Drive

* **Project Confidence**: Prepare to explain your **college project** in technical terms. Diagram if needed.
* **Choose a Strong Language**: Pick **Java/C++** or **.NET**, and practice in that consistently.
* **DSA Focus**: Arrays, Strings, Loops, Recursion – not advanced topics but clear, clean logic is expected.
* **OOPS is Key**: Most technical interviews will revolve around **OOP Design**. Practice class diagrams.
* **SQL Questions**: Expect queries around JOIN, GROUP BY, nested SELECT – practice 10-15 queries.
* **Be Interview-Ready**: Prepare 1–2 mins pitch about yourself, tech skills, and future goals.
* **SDLC Diagram**: Requirement → Design → Implementation → Testing → Deployment → Maintenance