BEL Probationary Engineer (CSE) – Exam Syllabus & Preparation Guide

■ Exam Pattern

- Total Questions: 125 (100 Technical + 25 Aptitude/Reasoning)
- Duration: 2 hours (120 minutes)
- Marking: +1 mark for correct answer, -0.25 mark for wrong answer
- Language: English & Hindi
- Selection: CBT + Interview/Document Verification

■ Syllabus for Computer Science Graduates

A. General Aptitude / Reasoning / English / GK

- Logical Reasoning: Analogy, Series, Blood Relations, Direction Sense, Seating Arrangement, Venn Diagrams
- Quantitative Ability: Areas, Averages, Ratio & Proportion, Time & Work, Time, Speed & Distance, Number System, P&C;, Data Interpretation
- English Language: Comprehension, Cloze Test, Error Spotting, Synonyms/Antonyms, Idioms & Phrases, Sentence Rearrangement
- General Awareness: Science & Technology, Economy, Awards, Personalities, National/International Affairs

B. Technical (Computer Science / IT)

- Computer Fundamentals & Programming (C / C++)
- Data Structures & Algorithms: Trees, Graphs, Heaps, Sorting, Searching, Hashing, Traversals
- Computer Organization & Architecture: Addressing modes, Cache, I/O, Memory interface, Pipelining
- Operating Systems: Process management, Deadlocks, Scheduling, Memory management, File systems
- Databases: ER models, Relational model, Normalization, Transactions, Query languages, Indexing
- Computer Networks: OSI/ISO model, Routing protocols, LAN/WAN, TCP/UDP, Network devices
- Theory of Computation / Compiler Design / Automata: finite automata, parsing, lexical analysis
- Web & Internet Technologies: HTML, CSS, JavaScript, Shell programming, Unix basics
- Cyber Law / Linux System Administration (as per notification)

■ Preparation Tips for Final-Year CSE Students

- Start with core subjects: DSA, OS, DBMS, Networks — major weightage.
- Don't ignore aptitude/reasoning — 25 questions matter for shortlisting.
- Revise coding fundamentals — especially logical programming and syntax-based questions.
- Go through previous year BEL papers for CSE discipline.
- Take timed mock tests — aim for 1 question per minute speed.
- Create a 2-hour daily study plan: 1.5 hours technical + 30 mins aptitude.
- Use your project knowledge (e.g., full-stack) to strengthen applied concepts.

- Stay updated on BEL's official website for announcements.