

# Heavy Engineering Corporation Limited (HECL) Syllabus

## HEC Limited Non-Executive Trainee Syllabus - Aptitude

- Average
- Number System
- Profit and Loss
- Time and Distance
- Clocks and Calendars
- Problems on Trains
- Percentages
- Ratios and Proportion
- H.C.F. and L.C.M
- Pipes and Cisterns
- Problems on Ages
- Data Interpretation
- Mixture and Allegation
- Boats and Streams
- Simple & Compound Interest
- Time and Work
- Discounts

## Heavy Engineering Corporation Limited (HECL) Reasoning Syllabus

### Verbal Reasoning

- Analogy
- Series Completion
- Verification of truth of the Statement
- Situation Reaction Test
- Direction Sense Test
- Classification
- Data Sufficiency
- Alpha- Numeric Sequence Puzzle
- Puzzle Test
- Blood Relations
- Coding- Decoding
- Assertion and Reasoning
- Arithmetical Reasoning
- Operations of Mathematics
- Venn Diagrams
- Word Sequence
- Missing Characters
- Sequential Output training
- Directions

## **Heavy Engineering Corporation Limited (HECL) Syllabus**

- Test on Alphabets
- Eligibility Test

### **Non-Verbal Reasoning**

- Dot Situation
- Identical figure groupings
- Forming figures and analysis
- Construction of squares and Triangles
- Series
- Analogy
- Analytical Reasoning
- Paper Folding
- Paper Cutting
- Cubes and Dice
- Water Images
- Mirror Images
- Figure Matrix
- Completion Incomplete Pattern
- Spotting embedded figures
- Classification
- Rules Detection

### **www.hecltd.com Non-Executive Trainee Syllabus - Mathematics**

- Relations and Functions
- Logarithms
- Complex Numbers
- Quadratic Equations
- Sequences and Series
- Trigonometry
- Cartesian System of Rectangular Coordinates
- Statistics
- Differentiation
- Introduction to Three Dimensional Geometry
- Straight Lines
- Circles
- Conic Sections
- Permutations and Combinations
- Vectors
- Exponential and Logarithmic Series
- Sets and Set Theory
- Probability Function

## **Heavy Engineering Corporation Limited (HECL) Syllabus**

- Limits and Continuity
- Applications of Derivatives
- Indefinite Integrals Binomial Theorem
- Matrices
- Determinants
- Definite Integrals

### **भारी इंजीनियरिंग निगम लिमिटेड Syllabus - General English**

- Substitution
- Sentence Arrangement
- Transformation
- Prepositions
- Fill in the blanks
- Para Completion
- Joining Sentences
- Error Correction (Underlined Part)
- Antonyms
- Spelling Test
- Synonyms
- Idioms and Phrases
- Passage Completion
- Error Correction (Phrase in Bold)
- Spotting Errors
- Sentence Completion
- Active and Passive Voice
- Sentence Improvement

### **HEC Limited Non-Executive Trainee Syllabus - Concerned Subjects**

- Fitter
- Welder
- Machinist
- Foundry
- Electrician
- RCC
- Turner
- Forger / Forger cum Heat Treater

### **HEC Limited Non-Executive Trainee Syllabus - Mechanical**

- Engineering Mechanics
- Engineering Materials
- Mechanisms and Machines

## **Heavy Engineering Corporation Limited (HECL) Syllabus**

- Fluid Mechanics
- IC Engines, Refrigeration and Air conditioning
- Turbo Machinery
- Thermodynamics and Heat transfer
- Power Plant Engineering
- Renewable Sources of Energy
- Design of Machine Elements
- Manufacturing
- Industrial and Maintenance Engineering
- Mechatronics and Robotics

### **Heavy Engineering Corporation Limited (HECL) Syllabus - Electrical**

- Analog and Digital Electronics
- Systems and Signal Processing
- Control Systems
- Electrical Machines
- Electrical and Electronic Measurements
- Engineering Mathematics
- Electric Circuits and Fields
- Computer Fundamentals
- Basic Electronics Engineering
- Electrical Materials
- Power Systems
- Power Electronics and Drives

### **www.hecltd.com Non-Executive Trainee Syllabus - Civil**

- A Flow of Fluids, Hydraulic Machines, and Hydro Power
- Fluid Mechanics, Open Channel Flow, Pipe Flow
- Hydraulic Machines and Hydropower
- Hydrology and Water Resources Engineering
- Environmental Engineering
- Water Supply Engineering
- Building Materials
- Structural Analysis
- Design of Steel Structures
- Design of Concrete and Masonry structures
- Construction Practice
- Planning and Management
- Waste Water Engineering
- Solid Mechanics
- Solid Waste Management

## **Heavy Engineering Corporation Limited (HECL) Syllabus**

- Air, Noise pollution, and Ecology
- Geotechnical Engineering and Foundation Engineering
- Surveying and Geology
- Transportation Engineering
- Highways
- Tunneling
- Railways Systems
- Harbours
- Airports

### **भारी इंजीनियरिंग निगम लिमिटेड Syllabus - Metallurgy**

- General Metallurgy
- Welding & Corrosion
- Mechanical Metallurgy
- Physical Metallurgy
- Material Science
- Extractive Metallurgy
- Foundry Technology

### **HEC Limited Non-Executive Trainee Syllabus - Chemical**

- Atoms and Molecules.
- Reaction Dynamics.
- Electrochemistry.
- Stereochemistry.
- Spectroscopic Techniques.
- Organic Reactions.
- Photochemistry.
- Transition Metal Chemistry.