

## **BHEL Engineer Trainee Exam Pattern For Exam**

S.no	Type of Exam	Sections	Subjects	No. of questions	time Duration
1	Objective Type	Aptitude Test	Aptitude	240	2 Hrs 30 min
2			Reasoning		
3			Logical thinking		
4			English		
5			General Awareness		
6		Technical Test	Elect /Electronics/ Mech engg		

## **BHEL Engineer Trainee Syllabus-Topic Wise**

### **Electricals**

- Micro Processors and Micro Controllers.
- Power System Protection.
- Analog theory.
- Digital Electronics.
- Power Electronics and Electric Devices
- Control Systems.
- IC Technology.
- Non-Conventional Energy Sources and Energy Management.
- Power Systems: Analysis and Control.
- Measurement and Instrumentation.
- Electrical Engineering Materials.
- Electrical Circuits – Theory and Application.
- M Theory.
- Energy Conversion.

### **Electronics**

- Advanced Communication Topics
- Electronic Measurements and Instrumentation
- Network Theory
- Computer Organization and Architecture

- Electro Magnetism
- Basic Electrical Engineering
- Materials Science
- Analog and Digital Communication Systems
- Control Systems
- Basic Electronics Engineering
- Advanced Electronics Topics
- Analog and Digital Circuits

### **Mechanical**

- Theory of Machines.
- Manufacturing science.
- Manufacturing Management.
- Mechanics of Solids.
- Engineering Materials.
- Machine Design.
- Thermodynamic Cycles.
- Fluid Mechanics and Power Plants.
- Heat Transfer, Refrigeration and Air Conditioning.
- Fluid Mechanics.
- I.C Engines, Fuels and Combustion.

### **Aptitude**

- Ratio & Proportion
- Ratio and Time
- Use of Tables and Graphs Mensuration
- Interest & Discount
- Decimals and Fractions
- Averages
- 'The relationship between Numbers
- Time and Work
- Computation of Whole Numbers

### **Reasoning**

- Coding-Decoding.
- Mirror Images.
- Directions.
- Cubes and Dice.
- Non-Verbal Series.
- Embedded Figures.
- Arithmetical Reasoning.
- Clocks & Calendars.
- Decision Making.

- Analogy.
- Blood Relations.

### **English**

- Select the correct Tense
- Blanks with correct 'Homophones.'
- Comprehension
- Identify the correct Degree
- Fill in the blanks with suitable Article
- Choose the exact 'Antonyms' for the underlined word from the options given
- Find out the odd words (Verb, Noun, Adjective, Adverb)
- Choose the correct 'Synonyms' for the underlined word from the options given
- Select the correct word (Prefix, Suffix)
- Fill in the blanks (Infinitive, Gerund, Participle)
- Fill in the blanks with suitable Proposition
- Identify the sentence (Simple, Compound, Complex Sentence)
- Select the correct Question Tag

### **General Awareness**

- Indian Constitution.
- Important Days.
- Important Financial & Economic News.
- Books and Authors.
- General Politics.
- Awards and Honors.
- Current Affairs – National & International.
- Abbreviations.