# **Assistant Loco – Pilot**

## 1. CBT 1: Screening Test Syllabus

This stage is a qualifying round.

## a. Mathematics

- Number System
- Decimals and Fractions
- Percentages
- Ratio and Proportion
- Time and Work
- Time, Speed, and Distance
- Simple and Compound Interest
- Profit and Loss
- Mensuration (Area, Volume)
- Algebra
- Geometry and Trigonometry

## b. General Intelligence & Reasoning

- Analogies
- Coding-Decoding
- Blood Relations
- Syllogism
- Decision Making
- Direction Sense
- Puzzles
- Data Interpretation
- Statement-Conclusion
- Logical Reasoning

#### c. General Science

• Physics, Chemistry, and Life Sciences (up to 10th standard level).

## d. General Awareness & Current Affairs

- Indian Railways Updates
- Sports
- Politics and Economy
- Culture
- Science and Technology
- Recent National and International Events

## 2. CBT 2: Advanced Test Syllabus

This stage has Part A and Part B.

## **Part A: General Topics**

- 1. Mathematics
  - o Same as CBT 1.
- 2. General Intelligence & Reasoning
  - o Same as CBT 1.
- 3. Basic Science & Engineering
  - Engineering Drawing (Basics)
  - Units and Measurements
  - o Work, Power, and Energy
  - Speed and Velocity
  - Laws of Motion
  - Current and Resistance
  - Conductors and Insulators
  - Thermodynamics
  - Heat and Temperature
  - Basic Engineering Materials

#### 4. General Awareness

o Same as CBT 1, with an emphasis on Indian Railways-related knowledge.

## Part B: Trade-Specific Syllabus

• Questions are based on the candidate's trade or field of study (as per ITI/Diploma qualification). Below are some trade examples:

## 1. Electrical Trade

- o Basics of Electricity
- DC/AC Circuits
- Transformers
- Motors and Generators
- Power Systems
- o Electrical Measurements

## 2. Mechanical Trade

- Thermodynamics
- Workshop Technology
- Strength of Materials
- Fluid Mechanics
- o IC Engines

#### 3. Electronics Trade

- Digital Electronics
- Communication Systems
- Microprocessors
- Semiconductors

#### 4. Automobile Trade

- Transmission Systems
- Engine Systems
- Braking Systems
- o Fuel Systems

# 3. Computer-Based Aptitude Test (CBAT) (if applicable)

This stage focuses on psychological and cognitive abilities for Loco Pilot posts.

## **Topics Assessed:**

- Memory Test
- Spatial Scanning
- Concentration Test
- Perceptual Speed
- Following Directions

## 4. Document Verification & Medical Standards

 No syllabus but ensure to meet the vision and physical requirements for A-1 medical fitness.