

## CSIR IITR Technical Assistant Exam Pattern

Paper	Subject	Number Of Questions	Maximum Marks	Time Duration	Negative Marking
Paper I	Mental Ability Test (General Intelligence, Quantitative Aptitude, Reasoning Problem Solving, situational Judgement)	50	100 (Each Question 2 Marks)	1 Hour	No Negative Marking
Paper-II	General Awareness	25	75 (Each Question 3 Marks)	30 Minutes	1 Mark for one Wrong answer
	English Language	25	75 (Each Question 3 Marks)		
Paper III	Technical Subjects	100	300 (Each Question 3 Marks)	90 Minutes	1 Mark for one Wrong answer

## CSIR IITR Technical Assistant Syllabus - Topic Wise

### Quantitative Aptitude

- Problems on Ages.
- Data Interpretation
- Average.
- Time and Distance.
- Interest.
- Percentages.
- Number System.
- Decimal and Fractions.
- Simplification.
- Ratios and Proportions.
- Profit and Loss.

- Time and Work.
- HCF & LCM.
- Mixtures and Allegations.

### **General Intelligence & Reasoning**

- Statement and Conclusions
- Syllogism
- Puzzles
- Paper Folding
- Mirror and Water Images
- Odd One Out
- Statement and Assumptions
- Calendars
- Cause and Effect
- Clocks
- Reasoning Analogies
- Artificial Language
- Blood Relations
- Coding-Decoding
- Alphanumeric series
- Seating Arrangements
- Shape Construction
- Decision Making
- Deductive Reasoning/Statement Analysis
- Critical path
- Cubes and cuboids
- Data Sufficiency
- Embedded Images
- Figure Matrix
- Input-Output
- Picture Series and Sequences
- Dices
- Directions
- Pattern Series and Sequences
- Order & Ranking

### **General Awareness**

- Physics, Chemistry & Biology
- General Polity
- Static GK
- Current Affairs
- General Science
- Governors in India
- Geography

- Culture
- Economics
- History
- Indian Constitution
- Scientific Research
- Sports
- Inventions & Discoveries
- Neighboring Countries of India
- Countries, Capital & Currency
- Indian Financial System

### **General Science**

- Biology
- Physics
- Chemistry

### **English Language**

- One word substitution
- Sentence correction
- Spot the error
- Fill in the blanks
- Close passage
- Antonyms
- Reshuffle of a road
- Conversion to direct/indirect statement
- Idioms and phrases
- Synonyms / phrases
- Sentence shuffling
- Active/passive voice
- Spelling/misspelling – detecting words

### **Civil Engineering**

- Canal Head Works
- Cross Drainage Works
- Dams
- Water Logging and Drainage
- Flood Protection
- Irrigation Management
- Fluid Mechanics
- The strength of Materials & Theory of Structures
- Design of Reinforced concrete structures
- Steel & Machinery structures
- Soil Mechanics and Foundation Engineering

- Surveying
- Building Materials and construction
- Water supply and sanitation for public building
- Water Resources Engineering
- Rain Fall & Run-off
- Water Requirement of Crops
- Lift Irrigation
- Flow Irrigation

### **Electrical Engineering**

- Functions of capacitors & reactors.
- Performance of line fault analysis.
- Measurement of Electrical Power.
- Power Engineering.
- Low Voltage constraint & resolving thereof.
- Distribution Network Installation & load studies.
- Present Power Sector scenario in India and other Electrical Engineering topics etc.
- Switchgear & protection (MC/LV) & LT Switchgear design and testing etc.
- Analysis of Dist. Transformers, Meters & Testing
- Distribution HT/LT Line parameters.
- Non-conventional Energy sources like Wind, Solar, Biomass, etc.