

### Part I

## **OHPC Technical Trainee Syllabus - General Aptitude**

### **Quantitative Aptitude**

- Ratio and Proportion
- Simple Interest
- Chain Rule
- Permutation and Combination
- Decimal Fraction
- Time and Work
- Stocks and Share
- Probability
- Logarithm
- Average
- Numbers
- Problems on Ages
- Area
- Square Root and Cube Root
- Height and Distance
- Surds and Indices
- Boats and Streams
- Allegation or Mixture
- Banker's Discount
- Races and Games
- Time and Distance
- Volume and Surface Area
- Simplification
- Pipes and Cistern
- Partnership
- Problems on HCF, LCM



• Compound Interest

#### Reasoning

#### **Verbal Reasoning**

- Puzzle test
- Machine input
- Inequalities
- Decision making
- Sequential output tracing
- Direction sense test
- Number series
- Analogy
- Coding-decoding
- Logical Venn diagram
- Alphabet test
- Alpha-numerical sequence puzzle
- Mathematical operations
- Numbers, ranking & time sequence test
- Logical sequence test
- Arithmetical operations
- Inserting the missing characters
- Data Sufficiency
- Eligibility test
- Assertion and reason
- Syllogism
- Sitting arrangement
- Classifications
- Blood relations
- Situation reaction test
- Verification of truth of the statement



#### **Non-Verbal Reasoning**

- Figure matrix
- Paper folding
- Paper cutting
- Rule detection
- Grouping of identical figures
- Cubes and dice
- Series
- Analogy
- Dot situation
- Water-image
- Spotting out the embedded figures
- Classification
- Analytical reasoning
- Mirror-image
- Completion of incomplete pattern
- Construction of squares and triangles

#### **General Awareness**

- Inventions and Discoveries
- Current Affairs
- Sports
- Indian Parliament
- Indian History
- Famous Books & Authors
- Rivers, Lakes and, Seas
- Famous Days & Dates
- Tourism
- Indian Politics
- Indian Economy
- Biology



- Civics
- Artists
- Famous Places in India
- Environmental Issues
- Countries and Capitals
- Geography
- General Science
- Literature
- Heritage

## English

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

## Part II

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#### Electrical

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

#### Mechanical

- Engineering Mechanics
- Energy conservation
- Engineering Materials
- The Strength of Materials
- Management Information System
- Machining and Machine Tool Operations
- Thermodynamics
- Meteorology and Inspection
- Product design and Development
- Fluid Machines
- Heat Transfer
- Fluid Mechanics
- Theory of Machines
- Operations Research
- Machine Design



- Industry Safety
- Inventory Control
- Machining and Machine Tool Operations
- Metal Casting
- Production Planning and Control
- Computer Integrated Manufacturing Design
- Inventory Control

### Civil

- Building Planning
- Valuation
- Hydraulic Structure
- Professional practice
- Transportation Engineer 1 & 2 (Road)
- Quantity Estimation
- Building Code
- Town Planning
- GIS
- Structural Analysis
- Soil Mechanics