

SYLLABUS FOR JUNIOR SUPERVISOR- MECHANICAL SAFETY

PART I- GENERAL MANAGEMENT APTITUDE (Marks – 20)

1. Mental Ability & Reasoning (Intelligence & Critical Reasoning)

- **Logical Reasoning:** Syllogisms, statement & conclusions, statement & arguments, course of action, decision making.
- **Analytical Reasoning:** Puzzles, seating arrangements, complex arrangements, linear and circular arrangements.
- **Verbal Reasoning:** Series completion (alphanumeric, number, symbol), analogies, classification (odd one out), coding-decoding, blood relations, direction sense test.
- **Non-Verbal Reasoning:** Visual reasoning, paper folding/cutting, mirror images.

2. English Language & Comprehension (Language Comprehension)

- **Reading Comprehension:** Understanding and interpreting passages.
- **Grammar:** Rules for tenses, prepositions, articles, subject-verb agreement, active and passive voice, direct and indirect speech, spotting errors.
- **Vocabulary:** Synonyms, antonyms, idioms & phrases, one-word substitutions, words often confused and misused.
- **Verbal Ability:** Sentence correction, sentence completion/fill in the blanks, para jumbles/sentence rearrangement.

3. Data Analysis & Interpretation (Data Analysis & Sufficiency)

- **Data Interpretation (DI):** Analysis of data from sources such as bar graphs, line graphs, pie charts and tables.
- **Data Sufficiency & basic Statistics**

4. Numerical Ability (Mathematical Skills/Quantitative Aptitude)

- **Arithmetic:**
 - Number systems, HCF and LCM.
 - Percentages, profit & loss, simple & compound interest.
 - Ratio & proportion, averages, problems on ages.
 - Time & work, time & distance, pipes & cisterns.
 - Mixtures and allegations, partnership.
- **Algebra:** Basic algebra, linear equations, inequalities, logarithms, permutations and combinations (occasionally).
- **Geometry & Mensuration:** Basic geometry (triangles, circles) and mensuration (area and volume).

- **Simplification:** Square roots, cube roots, surds & indices

5. General Knowledge & Current Affairs

DISCIPLINE – MECHANICAL SAFETY (Marks – 55)

1. Industrial Safety Legislation: Factories Act 1948, Goa Factories Rules 1985 as amended,
2. and Indian Standard (IS) safety codes. HIRA, JSA (Job Safety Analysis),
3. Root Cause Analysis (RCA), and safety audit procedures.
4. Operational Safety: Machine guarding, hot work permits, Height works,
5. confined space entry protocols, Scaffoldings and pressure vessel safety.
6. Safe Working Load (SWL) for cranes/hoists, wire rope inspection, and EOT
7. crane safety. types and use of Fire extinguishers and MSDS/hazardous material storage.

Disclaimer: The Above syllabus is broadly indicative but not exhaustive. Examination paper will be related to the qualification and relevant experience as per the post advertised

