

**Annexure I**

**DETAILED SYLLABUS OF PART A**

<b>Particulars</b>	<b>Syllabus - General (Part A)</b>
<b>General Knowledge</b>	<ul style="list-style-type: none"><li>• Facts about India and other countries: Basic facts / Geography / Tourism / Transport systems / Personalities / Places / History / Constitution / Economy / Writers / Literatures / Indian States &amp; Union Territories / International Organizations.</li><li>• General Science : Branches of studies / Scientific instruments and appliances / Physics / Chemistry / Biology</li><li>• Sports &amp; Games</li><li>• Important Events/ Movements / Leaders / Places / Years</li><li>• Writers – Authors – Biography - Autobiography</li><li>• Abbreviations</li></ul>
<b>General English</b>	<ul style="list-style-type: none"><li>• Spotting Errors / Vocabulary usage / Sentence Completion / Synonyms / Antonyms / Reconstruction of sentences / One word substitution / Idioms &amp; Phrases / Grammar / Correct usage of Articles / Prepositions / Singular and Plural</li></ul>
<b>Reasoning</b>	<ul style="list-style-type: none"><li>• Analogy / Classification / Series Completion / Coding-Decoding / Blood Relation / Direction Sense Test / Alphabet Test / Number and Ranking / Puzzle Test / Odd Man out / General Intelligence</li></ul>
<b>Quantitative Aptitude</b>	<ul style="list-style-type: none"><li>• Number system / Fraction and Decimals / Simplification / Volume and surface areas / Square roots and Cube roots / Problems based on numbers, Speed, Time and Distance, Simple Interest / Compound Interest / Boats and Streams / Problems on Trains / Percentage - Interest / HCF and LCM / Average / Ratio and Proportion / Time and Work / Problems based on ages / Profit, Loss and Discount, Statistics / Permutations &amp; Combinations / Probability.</li></ul>

**DETAILED SYLLABUS OF PART B**

Name of Post	Syllabus - Trade/Discipline related (Part B)
<p><b>Assistant Engineer (Mechanical)</b></p>	<ul style="list-style-type: none"> <li>• <b>Organisational Skills-</b> Role of a supervisor – Manpower management &amp; resource planning – Work force motivation – Grievance handling at shop floor level – Code of Conduct &amp; Discipline - Importance of time keeping &amp; productivity.</li> <li>• Basic knowledge of computer applications.</li> <li>• Supervisory Duties:-             <ul style="list-style-type: none"> <li>➤ <b>Principles of Organization</b> – Principles of organization, authority, responsibility, accountability, delegation, span of control, centralization, unity of command.</li> <li>➤ <b>Motivation</b> – Meaning of motivation, understanding human behavior, factors of motivation, levels of motivation, methods of motivating people, brief on motivation theories.</li> <li>➤ <b>Communication</b> – Purpose of communication, communication process, methods of communication written, oral, audio – visual, report writing, channels of communication namely formal and informal, art of giving instructions, barriers of communication, guidelines for effective.</li> </ul> </li> <li>• <b>HSE &amp; IMS-</b> Awareness on Industrial safety &amp; PPEs – Importance of housekeeping – Knowledge of IMS – Quality Standards – 5 S – management of industrial hazardous wastes.</li> </ul> <p><b>Theoretical and application knowledge on</b></p> <ul style="list-style-type: none"> <li>• Thermodynamics, Energy cycles, IC Engines, Four stroke &amp; two stroke engines</li> <li>• Refrigeration &amp; Air conditioning, Psychrometrics</li> <li>• Welding – types &amp; defects, Gas flames, Soldering &amp; Brazing</li> <li>• Manufacturing processes &amp; Machine tools.</li> <li>• Corrosion &amp; its prevention.</li> <li>• Renewable &amp; Non- renewable energy sources</li> <li>• Pumps &amp; its types</li> </ul>