

Annexure I

DETAILED SYLLABUS OF PART A

Particulars	Syllabus - General (Part A)
General Knowledge	<ul style="list-style-type: none">• Facts about India and other countries: Basic facts / Geography / Tourism / Transport systems / Personalities / Places / History / Constitution / Economy / Writers / Literatures / Indian States & Union Territories / International Organizations.• General Science : Branches of studies / Scientific instruments and appliances / Physics / Chemistry / Biology• Sports & Games• Important Events/ Movements / Leaders / Places / Years• Writers – Authors – Biography - Autobiography• Abbreviations
Quantitative Aptitude	<ul style="list-style-type: none">• 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 & Combinations / Probability.

DETAILED SYLLABUS OF PART B

Sl. No	Name of Post	Syllabus – Trade related (Part B)
1.	Operator (Pipe Bending)	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none">• Measurement tools- Vernier callipers/ dial gauges etc.• Types of Material Handling Equipments• Maintenance aspects including Mechanical, Electrical and Electronics• Basics of Electrical and Electronics• Basics of Machineries• Pipe Bending processes.• Tools nomenclature• Bench tools• Drawings and standards- Limits / fit / clearances etc.• Types of Materials related to pipes.• Industrial safety & Safety Procedures.

Sl. No	Name of Post	Syllabus – Trade related (Part B)
2.	Welder Cum Fitter [Welder/ Welder (Gas & Electric)]	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Principle of welding • Welding positions & WPS/PQR/WPQ • Weld joint nomenclature and welding symbols • Welding and cutting tools • Welding techniques • Welding defects and remedial actions • Specification of Welding rods as per AWS • Gouging methods • Welding of Carbon steel/Al/Austenitic SS/High strength low alloys • Pipe welding – Cu, Ni and SS material • Modern welding procedures – SAW/ TIG/ CO2/ Electro gas welding • FCAW process with ceramic backing • One side welding for panel welding • Testing of weld joints • Safety procedures/First aid • Types of material handling equipment
3.	Operator (Crane)	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Types of Cranes and Crane operations • Different type of Lifting Methods. • Basic Rigging methods including various communication methods, Check and maintenance of Crane ropes, Rope pulleys, shackles Load hooks and end fittings , Standard safety practices while operating Different types of cranes • Basics of Electrical & Mechanical systems including various braking systems in Cranes, Operational interlocks, Safety devices used in Cranes, latest technologies etc. • Safety Procedures, First-aid and Awareness of Industrial Rules and Regulations. • Maintenance aspects in Cranes including Mechanical, Electrical and Electronics • Basics of Machineries including measuring methods • Types of Material Handling Equipment.
4.	Operator (Plate Preservation)	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Types of Painting • Different types of Blasting Methods • Safe operating Procedures in Painting and Blasting. • Maintenance aspects in Blasting and Painting including Mechanical, Electrical and Electronics • Different type of Lifting Methods, Tools, Ropes and rigging in cranes including maintenance aspects. • First aid

Sl. No	Name of Post	Syllabus – Trade related (Part B)
		<ul style="list-style-type: none"> • Basics of Machineries including measuring methods <p>Types of Material Handling equipment.</p>
5.	Welder Cum Fitter (Fitter)	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Tools Bench wise/Files etc • Marking and measuring tools • Limit/Fits/Tolerance • Numerical ability – Mass/Volume/density/unit conversion/unit system • Physical properties of metals and specific usage • Different Joining Methods • Welding Methods • Overhauling of machineries • Maintenance aspects • Shaft alignment and shaft sighting • Bedding or Chocking of machinery foundations • Safety procedures /First aid • Types of material handling equipment.