

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/Discipline related (Part B)
01	Pipe Fitter	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Tools -Marking /Fitting / Fastening • Marking and developing • Method of joining - Welding/Soldering/Brazing • Pipe fittings/joints and their usage • Pipe Classes and Grades • Properties of Steel/Alloys • Numerical ability - Mass/Volume/Density/unit conversion/unit system/ Ratio/ Proportion/ Mensuration • Material estimation for the piping layout • Piping symbols • Template and their preparation • Hydrostatic/hydraulic testing of Piping systems • Erection of piping systems and valves • Pipe fastening methods and bending of pipes • Safety procedures /First aid • Types of material handling equipments
02	Welder	<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/Austenetic 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
03	Electrician	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Basic electrical technology • DC and AC circuits • AC & DC machines, theory, speed control • AC & DC instruments, Basic electronics technology including power electronics • Operational amplifiers, Basic digital electronics, Microprocessor • Instrumentation fundamentals & measurement of Motion, Pressure, Flow, Level, Temperature, PH • Process instrumentation & control – Recorders, PID controller • Basic Pneumatic & Hydraulic theory, components & circuits • Basic knowledge on PLC, HART, DCS, SCADA, Computer networking, field bus

		<p>technology</p> <ul style="list-style-type: none"> • Basic pneumatics principle • Basic measuring tools & measuring instruments Basics – electricity (Current, Voltage, Resistance) & electrical components
04	Machinery Fitter	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Measurement tools- Vernier calipers/ dial gauges etc. • Lathe, Drilling & Milling machines • Tools nomenclature • Bench tools • Drawings and standards- Limits / fit / clearances etc. • Types of Materials related to ship Building • Industrial safety