

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
General English	<ul style="list-style-type: none"> • Spotting Errors / Vocabulary usage / Sentence Completion / Synonyms / Antonyms / Reconstruction of sentences / One word substitution / Idioms & Phrases / Grammar / Correct usage of Articles / Prepositions / Singular and Plural
Reasoning	<ul style="list-style-type: none"> • Analogy / Classification / Series Completion / Coding-Decoding / Blood Relation / Direction Sense Test / Alphabet Test / Number and Ranking / Puzzle Test / Odd Man out / General Intelligence / Numerical ability & knowledge in Microsoft excel.
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

Name of Posts	Syllabus - Discipline related (Part B)
For all posts	<ul style="list-style-type: none"> • Organisational Skills- Role of a supervisor – Manpower management & resource planning – Work force motivation – Grievance handling at shop floor level – Code of Conduct & Discipline - Importance of time keeping & productivity. • Basic knowledge of computer applications. • Supervisory Duties:- <ul style="list-style-type: none"> ➤ Principles of Organization – Principles of organization; authority; responsibility; accountability; delegation; span of control; centralization; unity of command. ➤ Motivation – Meaning of motivation; understanding human behavior; factors of motivation; levels of motivation; methods of motivating people; brief on motivation theories. ➤ Communication – 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 communication. • HSE & IMS- Awareness on Industrial safety & PPEs – Importance of housekeeping – Knowledge of IMS – Quality Standards – 5 S – management of industrial hazardous wastes.

In addition to the above, following are the topics included for various posts:-

Sl No.	Name of Posts	Syllabus - Discipline related (Part B)
1.	Accountant	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Financial Accounting • Trading & Profit & Loss Accounts and Balance Sheet • Bank Reconciliation Statement • Depreciation, Reserves and Reserve Funds, Ratio Analysis • Capital and Revenues, Revenue Accounts, Receipts & payments Accounts, Income & Expenditure Accounts • Company Accounts • Financial Statements and Reporting • Cost Accounting, Cost Records and Cost Audit • Direct and Indirect Taxes- Income Tax Act, Central Sales Tax Act, Service Tax Act, Central Excise Act • Contracts Act, Payment of Gratuity Act, Payment of Bonus Act, ESI Act, EPF Act. • Companies Act, Factories Act, ID Act • FEMA, SCRA and SEBI Act. • Company Audit, preparation of Auditors Report and other requirements. • Familiarity with Word. • <u>Familiarity with Excel:-</u> <ul style="list-style-type: none"> ➤ PivotTables and Charts ➤ Lookups, Ranges and Dates ➤ Conditional Formatting ➤ Managing Worksheets ➤ Built formulas and Understanding Formulas ➤ Changing Views

Sl No.	Name of Posts	Syllabus - Discipline related (Part B)
		<ul style="list-style-type: none"> ➤ AutoFill and Custom Lists ➤ Conditional Logic, Tables & Data Tools ➤ Referencing Formulas ➤ Ranges and Dates ➤ Introduction & Formatting Charts ➤ Adding Graphics to Spreadsheets ➤ Outline, Sort, Filter, and Subtotal ➤ Protecting Data ➤ Printing ➤ Saving a Workbook
2.	Assistant Engineer (Painting)	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Surface preparation for painting – methods – tools used – standards of preparation – effect of climate – application of paint, methods – on Ships and other marine vessels • Marine Paints and Systems • Quality control and Inspection / tests for Surface preparation and Painting • Corrosion and Cathodic protection • PSPC regulations • Practical maths – Estimation of paint and areas • Marine coating defects • HSE policy – Marine environment and Paints / surface preparation • Equipment used in blasting and painting • PPE for blasting and painting • Disposal of Hazardous wastes • First aid in painting environment
3.	Assistant Engineer (Welding)	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Welding symbols and interpretation of weld drawings. • Welding processes- Shielded Metal Arc welding, Gas metal Arc welding, Gas tungsten arc welding, plasma arc welding, One sided welding, Submerged arc welding, flux cored arc welding, Electro slag welding and mechanised welding. • Weld sequences. • WPS, PQR and WPQ. • Testing and inspection of Welds-Tensile properties, Bend Tests, NDT • Weld defects-Undercuts, cracks, porosity, slag inclusion, lack of fusion, lack of penetration • Electrode nomenclatures. • Distortion control methods. • Basic knowledge of IMS. • Economics of welding. • Safety requirements related to welding. • Aluminium welding (in the lights of new ships made of Aluminium super structure)

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4.	Assistant Engineer (Structural)	<p><u>Theoretical and application knowledge on</u></p> <ul style="list-style-type: none"> • Measurement tools (Vernier, dial gauges etc.) • Marking tools • Cutting processes/ Cutting gases/ Cutting tools • Press/Forming/Lofting • Types of joints/ joint preparation/ edge preparation and fitting processes • Welding processes and related works • Heat Treatment processes • Material Handling equipments • Tools nomenclature • Drawings and quality standards • Metallurgy (Materials related to Ship Building) • Quality standards (ISO, IMS, etc) • Industrial safety and safety at work
