

Syllabus for Computer Based Written Test for various Non-executive Posts in S-7 & S-5 Grade w.r.t Advt. no GAIL/OPEN/SRD/3/2022

1. SR. SUPERINTENDENT (HINDI)

<u>#</u>	<u>Syllabus</u>
<u>Part I</u>	<ul style="list-style-type: none"> - Knowledge of Official Language policy and OL act 1963 and provisions thereof - OL rules 1976 and various provisions and rules framed under it - Comprehension in Hindi & English - Administrative terminology (Hindi & English) - Hindi literature - Hindi Grammar
<u>Part II</u>	General Aptitude Test (Viz. General Knowledge, Logical Reasoning, Current Affairs, Visual Reasoning, English Comprehension, Mathematics)

2. SENIOR ACCOUNTANT

<u>#</u>	<u>Syllabus</u>						
<u>Part I</u>	<table border="1"> <tbody> <tr> <td>➤ Accountancy</td> <td> <ul style="list-style-type: none"> ○ Accounting concepts and conventions ○ Depreciation, Depletion and Amortisation(Concepts & Methods) ○ Inventory Valuation ○ Capital and Revenue expenditure/receipts ○ Bank Reconciliation Statement & Rectification of Errors ○ Lease/ Hire Purchase Accounting ○ Revenue Recognition </td> </tr> <tr> <td>➤ Basic of Mercantile Law</td> <td> <ul style="list-style-type: none"> ○ Contract Act, 1872 ○ Sale of Goods act, 1930 ○ Negotiable Instruments Act, 1881 </td> </tr> <tr> <td>➤ Company's Act 2013</td> <td> <ul style="list-style-type: none"> ○ Accounts & Audit ○ Schedule II (Depreciation) ○ Schedule-III (Financial Statements) ○ CSR provision </td> </tr> </tbody> </table>	➤ Accountancy	<ul style="list-style-type: none"> ○ Accounting concepts and conventions ○ Depreciation, Depletion and Amortisation(Concepts & Methods) ○ Inventory Valuation ○ Capital and Revenue expenditure/receipts ○ Bank Reconciliation Statement & Rectification of Errors ○ Lease/ Hire Purchase Accounting ○ Revenue Recognition 	➤ Basic of Mercantile Law	<ul style="list-style-type: none"> ○ Contract Act, 1872 ○ Sale of Goods act, 1930 ○ Negotiable Instruments Act, 1881 	➤ Company's Act 2013	<ul style="list-style-type: none"> ○ Accounts & Audit ○ Schedule II (Depreciation) ○ Schedule-III (Financial Statements) ○ CSR provision
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<p>➤ Income Tax Act 1961</p>	<ul style="list-style-type: none"> ○ Income Tax - Basic Concepts , Residential Status ○ Exempted Income and Income Tax Deductions (Chapter-VI A of Income Tax 1961) ○ Heads of Income (concepts & key provisions) ○ Provision relating to TDS & Forms to be filed with Income Tax Department
<p>➤ Goods & Services Act</p>	<ul style="list-style-type: none"> ○ Fundamental Concepts of GST including ○ GST Input Tax credit provisions / documentations
<p>➤ Cost accounting & Management Accounting</p>	<ul style="list-style-type: none"> ○ Cost Accounting basic – Material, Labour & Overhead ○ Fixed Cost & Variable Cost ○ Marginal & Relevant / Incremental Costing, Decision Making ○ Methods of Costing
<p>➤ Financial Management</p>	<ul style="list-style-type: none"> ○ Basic Concepts ○ Financial Ratio Analysis
<p>➤ Computer (MS – Office) and financial packages proficiency</p>	
<p>Part II</p>	<p>General Aptitude Test (Viz. General Knowledge, Logical Reasoning, Current Affairs, Visual Reasoning, English Comprehension, Mathematics)</p>

3. SR. SUPERINTENDENT (HR)

#	<u>Syllabus</u>
<u>Part I</u>	<ul style="list-style-type: none">- General Management & School of Management thoughts- Broad Functions of Personnel Management/ HRM (Function; Org. Structure; Manpower Planning; Recruitment & Selection; Wage & Salary Administration; Grievance Handling- Broad Functions of HRD (PMS; Training & Development; Workers Education Programmes; Training Effectiveness)- Organizational Behaviour & Organizational Development- Industrial Relations & Trade Unions (Participative Management)- Labour Laws (Objective; Principles; Evolution of Labour Law in India; Details on Factories Act 1948; ESI Act 1948; Employee Provident Fund & Miscellaneous Provisions Act 1952; Payment of Gratuity Act 1972; Employee Compensation Act 1923; Maternity Benefit Act 1961; Min. Wages Act 1948; Payment of Wages Act 1936 ; Contract Labour (Regulation & Abolition) Act, 1970; Industrial Disputes Act 1947; The Industrial Employment (Standing Orders) Act, 1946; Ind. Disputes Act 1947; Payment of Bonus Act 1965 etc.)- Disciplinary Proceedings- Information Technology (IT) and use of applications in HR (ERP; HR Analytics etc.)- Business Communication; Record Management; Data analysis & Interpretation
<u>Part II</u>	General Aptitude Test (Viz. General Knowledge, Logical Reasoning, Current Affairs, Visual Reasoning, English Comprehension, Mathematics)

4. SR. CHEMIST

<u>#</u>	<u>Syllabus</u>
<u>Part I</u>	<ul style="list-style-type: none">- Polymer chemistry- Inorganic chemistry- Physical chemistry- Organic chemistry- Water chemistry- Environmental Chemistry- Analytical chemistry- Group theory and spectroscopy- Principle of chromatography- Quantum chemistry- Testing equipment in Labs- Classification of elements
<u>Part II</u>	General Aptitude Test (Viz. General Knowledge, Logical Reasoning, Current Affairs, Visual Reasoning, English Comprehension, Mathematics)

5. FOREMAN (ELECTRICAL)

<u>#</u>	<u>Syllabus</u>
<u>Part I</u>	<ul style="list-style-type: none">- Fire Fighting Equipment- Basic Physics & Ohm's Law, Kirchoff's law etc.- Tool Box Management- Electrical Insulation- Electrical circuits and Fields- Electrical machines-Transformers, Generators, AC & DC Motors etc.- Electrical Power system- Electrical measurements and measuring instruments- Electrical Protection system- HT & LT Switchgear Panel & it's accessories- Winding technique- Wiring and lighting- Electrical earthing system- Battery Banks system- Power Electronics- Electrical Wiring and Jointing- Safety Gears & PPEs
<u>Part II</u>	General Aptitude Test (Viz. General Knowledge, Logical Reasoning, Current Affairs, Visual Reasoning, English Comprehension, Mathematics)

6. FOREMAN (INSTRUMENTATION)

#	<u>Syllabus</u>
<u>Part I</u>	<ul style="list-style-type: none">- Fire Fighting Equipment- (Preliminary) Physics- Tool Box Management- Electrical Insulation- Basics of circuits and Measurement systems- Transducers, mechanical measurement and industrial instrumentation- Analog electronics- Digital electronics- Electrical and electronic measurements- Control system and process control including control valves, pressure safety valves etc.- Analytical, optical and biomedical instrumentation- Measuring instruments - Pressure gauges, temperature gauges, flowmeters, level gauges, pressure transmitters, temperature transmitters etc.- Calibration of instruments- Instrument tubings- PLC/DCS- Loop checking- P & ID diagrams- Electrical Wiring and Jointing- Safety Gears & PPEs
<u>Part II</u>	General Aptitude Test (Viz. General Knowledge, Logical Reasoning, Current Affairs, Visual Reasoning, English Comprehension, Mathematics)

7. FOREMAN (MECHANICAL)

#	<u>Syllabus</u>
<u>Part I</u>	<ul style="list-style-type: none"> - Basic Physics & Measurement systems like Vernier Callipers, Micrometers, Wire Gauge - Tool Box Management - Cutting & Threading - Scrapping and Abrasive Operations - Pipe Joints – Flanged or welding - Machining - Fire Fighting Equipment - Engineering mechanics (Preliminary) - Strength of materials (Preliminary) - Hydraulics and fluid mechanics (Preliminary) - Hydraulic Machines (Practical aspects) - Heat transfer, refrigeration and air conditioning(Preliminary) - Theory of Machines (Basics) - Workshop technology - Production engineering - Engineering Metrology and measurements - Machine design - Engineering Materials - Welding Science - Safety Gears & PPEs
<u>Part II</u>	General Aptitude Test (Viz. General Knowledge, Logical Reasoning, Current Affairs, Visual Reasoning, English Comprehension, Mathematics)

- There will be a total of 100 questions in the Computer Based Written Test. Each question has equal mark i.e. 1 mark per question and total of 100 marks.
- There will be negative marking in the written test. 1/4th mark will be deducted for each wrongly answered question. No marks will be deducted for un attempted question.