# **SAIL Durgapur Exam Pattern**

Sl.No	Subject Name	Mark	Type of Exam
1.	Quantitative Aptitude	25	
2.	Logical Reasoning	25	
3.	English	25	Objective
4.	General Knowledge	25	type
5.	Engineering Stream	100	
Total		200	

# SAIL Durgapur Syllabus 2020-Topics Wise

### **Quantitative Aptitude**

- 1. Decimal Fraction
- 2. Time and Distance
- 3. Average
- 4. Chain Rule
- 5. Time and Work
- 6. Simplification
- 7. Logarithm
- 8. Height and Distance
- 9. Partnership
- 10. Ratio and Proportion
- 11.Banker's Discount
- 12.Problems on Ages
- 13. Allegation or Mixture
- 14.Numbers
- 15.Permutation and Combination
- 16.Area
- 17. Problems based on H.C.F & L.C.M
- 18. Stocks and Share
- 19. Pipes and Cistern
- 20.Compound Interest
- 21.Probability
- 22. Boats and Streams

- 23.Square Root and Cube Root
- 24. Volume and Surface Area
- 25.Surds and Indices
- 26.Races and Games
- 27.Simple Interest

### Logical Reasoning

- 1. Blood Relations
- 2. Statements & Arguments
- 3. Number Ranking
- 4. Arithmetical Reasoning
- 5. Number Series
- 6. Non-Verbal Series
- 7. Alphabet Series
- 8. Statements & Conclusions
- 9. Data Interpretation
- 10. Analogy
- 11.Syllogism
- 12.Directions
- 13.Clocks & Calendars
- 14. Decision Making
- 15.Mirror Images
- 16.Cubes and Dice
- 17.Coding-Decoding

### English

- 1. Fill in the blanks
- 2. Sentence Arrangement
- 3. Sentence Completion
- 4. Error Correction
- 5. Active Voice and Passive Voice
- 6. Spotting Errors
- 7. Para Completion
- 8. Joining Sentences
- 9. Antonyms
- **10.Idioms and Phrases**
- 11. Passage Completion
- 12. Substitution

- 13.Synonyms
- 14.Error Correction
- 15.Prepositions
- 16.Sentence Improvement

### **General Knowledge**

- 1. Indian National Movement
- 2. International & National Organizations
- 3. General Science
- 4. Countries & Capitals
- 5. Abbreviations
- 6. Science Inventions & Discoveries
- 7. Awards and Honors
- 8. Indian History
- 9. Important Days
- 10.Indian Economy
- 11.Science & Technology
- 12. General Polity
- 13. Budget and Five Year Plans
- 14.Sports
- 15. Current Affairs, National & International
- 16. Books and Authors

# **Electronics and Communication Engineer**

- 1. Electromagnetic Fields and antennas
- 2. VLSI and Embedded Systems
- 3. Computer Engineering
- 4. Analog electronic circuits
- 5. Communication Systems
- 6. Control Systems and instrumentation
- 7. Signals and Systems
- 8. Electronic Communication
- 9. Semiconductor Theory and Electronic Devices
- 10.Circuit Theory
- 11. Digital Signal and Image Processing

# **Mechanical Engineering**

- 1. Probability & Statistics
- 2. Engineering Mechanics
- 3. Operations
- 4. Operations Research
- 5. Vector Calculus
- 6. Fluid Mechanics
- 7. Refrigeration and air-conditioning
- 8. Engineering Materials
- 9. Turbomachinery
- 10. Theory of Machines
- 11.Metal Casting
- 12.Calculus
- 13. Thermodynamics
- 14.Differential Equations
- 15. The design of Machine Elements
- 16.Tool Engineering
- 17. Joining Processes
- 18.Forming Processes
- 19. Numerical Methods
- 20. The Strength of Materials

### **Civil Engineering**

- 1. Structural Engineering/Steel/ Reinforced Cement Concrete
- 2. Transportation Engineering
- 3. Fluid Mechanics
- 4. Engineering Mechanics
- 5. Civil Engineering Materials
- 6. Environmental Engineering
- 7. Concrete/ Construction Technology
- 8. The Strength of Materials
- 9. Survey estimating
- **10.Soil Mechanics**
- 11.Structural Engineering/RCC design

### **Electrical Engineering**

- 1. Electrical Engineering Materials
- 2. Machines
- 3. Instruments
- 4. Power Systems
- 5. Electrical Measurements & Measuring
- 6. Microprocessor
- 7. Power Electronics & Drives
- 8. Circuit Theory
- 9. Analog Circuits/ Electronics
- **10.Digital Electronics**
- 11.Control System
- 12. Electrical Basics
- 13.Network theory
- 14. Power Systems

# **Chemical Engineer**

- 1. Mass Transfer
- 2. Process Calculations and Thermodynamics
- 3. Chemical Technology
- 4. Heat Transfer
- 5. Chemical Reaction Engineering
- 6. Instrumentation and Process Control
- 7. Fluid Mechanics and Mechanical Operations
- 8. Plant Design and Economics

