IFFCO GEA Syllabus 2024

Candidates who meet the IFFCO Graduate Engineer Apprentice eligibility Criteria and have applied for the exam should follow the basic syllabus specified by the board. Read the section below to learn about the Technical and Aptitude syllabus.

IFFCO GEA Syllabus for Electrical Engineering

Topic	Description
Basic Electronics	Fundamental principles of electronics
Magnetic Circuit	Theory and applications of magnetic circuits
Power Electronics & Drives	Power control and drive mechanisms
Estimation and Costing	Cost assessment in electrical projects
AC Fundamentals	Basic principles of alternating current
Power Systems	Study of electrical power systems
Network Theory	Analysis of electrical networks
Electrical Machines	Study of machines like motors and generators
Measurement and Measuring Instruments	Tools and techniques for electrical measurements

Analog and Digital Electronics	Principles of analog and digital circuits
Utilization of Electrical Energy	Efficient use of electrical energy
Basic Electrical Engineering Concept	Foundational concepts of electrical engineering

IFFCO GEA Syllabus for Mechanical Engineering

Topics for Mechanical Engineering covered in IFFCO GEA Syllabus	
Air Conditioning Systems	Automobile Engines (Power Plant)
Vapour Compression System Components	Auto-Electric System
Fuel Systems for Petrol Engine	Introduction (Vehicle Layouts and Types)
Fuel System for Diesel Engines	Vapor Compression Cycle
Automobile Engines (Power Plant)	Air Distribution Systems
Auto-Electric System	Refrigerant
Introduction (Vehicle Layouts and Types)	Steering & Front Axle

Vapor Compression Cycle	Air Refrigeration Cycles
Air Distribution Systems	Vapour Absorption System
Refrigerant	Estimation of Material Cost
Steering & Front Axle	Final Drive & Rear Axle
Air Refrigeration Cycles	Air Conditioning & Psychrometric Processes
Vapour Absorption System	Wheels and Tyres
Estimation of Material Cost	Automobile Emissions and its Control
Final Drive & Rear Axle	Cooling Load Calculation
Air Conditioning & Psychrometric Processes	Suspension Systems
Wheels and Tyres	Fundamentals of Estimating
Automobiles Emissions and its Control	Transmission & Propeller Shaft

IFFCO GEA Syllabus for Civil Engineering

Topics for Civil Engineering covered in IFFCO GEA Syllabus	
Steel Structures	Civil Engineering Materials and Construction
Surveying	Soil Mechanics and Foundation Engineering
Hydraulic Structures	Environmental Engineering
Reinforced Concrete Structures	Construction and Project Management
Transportation Engineering	Hydrology & Water Resources Engineering
PSC Structures	Estimation, Costing, and Specifications
Fluid Mechanics	Solid Mechanics, Structural Analysis
Bridge Engineering	Concrete Technology
Environmental Studies	-

IFFCO GEA Syllabus for Electronics Engineering

Topics for Electronics Engineering covered in IFFCO GEA Syllabus

Network Signals Systems	Transducers, Mechanical Measurement, and Industrial Instrumentation
Electronic Devices	Analytical, Optical Instrumentation
Analog and Digital Circuits	Electrical and Electronic Measurements
Electromagnetics	Communications
Control Systems	-

IFFCO GEA Syllabus for Instrumentation Engineering

Topics for Instrumentation Engineering covered in IFFCO GEA Syllabus	
Braingate System	BiCMOS Technology
Direct Torque Control	Raid Technology
SMS-Based Electronic Notice Board	Spinning LED Display
Combined Cycle Power Plant	Cryogenic Engine

IFFCO GEA Syllabus for Chemical Engineering

Topics for Chemical Engineering covered in IFFCO GEA Syllabus	
Separation processes	Petroleum Engineering
Thermodynamics	Fluid mechanics
Heat, mass, and momentum	Industrial Chemistry
Environmental management	Cell Biology

IFFCO GEA Syllabus for General Aptitude

The General Aptitude syllabus contains topics like reasoning, mental capacity, and so forth. Check out the subject-specific IFFCO Graduate Engineer Trainee Aptitude Syllabus for General Aptitude below.

Subject	**Topic**
IFFCO GEA Syllabus for Analytical Ability	Missing Characters
	Sequential Output Training
	Directions
	Test on Alphabets
	Eligibility Test
	Alpha-Numeric Sequence Puzzle
	Puzzle Test
	Blood Relations

	Coding-Decoding
	Assertion and Reasoning
	Arithmetical Reasoning
	Analogy
	Series Completion
	Verification of Truth of the Statement
	Situation Reaction Test
	Direction Sense Test
	Classification
	Data Sufficiency
	Operations of Mathematics
	Word Sequence
IFFCO GEA Syllabus for English Language	Homonyms
	Spotting Errors
	Antonyms & Synonyms
	Phrases and Idioms
	Word Formation
	Direct and Indirect Speech

	Spelling
	Active / Passive Voice
	Reading Comprehension
	Fillers
	Para jumbles
	One-word substitution
IFFCO GEA Syllabus for Reasoning	Paper Cutting
	Cubes and Dice
	Completion of Incomplete Pattern
	Dot Situation
	Water Images
	Analytical Reasoning
	Identical Figure Groupings
	Forming Figures and Analysis
	Construction of Squares and Triangles
	Series
	Paper Folding
	Figure Matrix

	Mirror Images
	Spotting Embedded Figures
IFFCO GEA Syllabus for Numerical Ability	Averages
	Mensuration
	Indices and Surds
	Simple Equations
	Profit and Loss
	Problems on Numbers
	Pipes and Cisterns
	Probability
	Time and Distance
	Quadratic Equations
	Numbers and Ages
	Permutations and Combinations
	Interest
	Problems on Trains
	Ratio and Proportion
	Areas

	Volumes
	Percentages
	Boats and Streams
	Simplification and Approximation
	Mixtures and Allegations
	Problems with LCM and HCF
	Time and Work Partnership
	Problems on Ages