

IOCL Recruitment of Executives — CBT 2026 Syllabus

Source: Official IOCL website (iocl.com/latest-job-opening) — Indicative Syllabus PDFs

Section A — General Aptitude (Common for ALL Posts)

Subject	Topics
Verbal Ability of English Language	Basic English grammar (tenses, prepositions, articles, adjectives, conjunctions, verb-noun agreement, parts of speech); Basic vocabulary (words, idioms, phrases in context); Reading & comprehension; Narrative sequencing
Quantitative Aptitude	Data interpretation (bar graphs, pie charts, other data graphs); 2D & 3D plots, maps, tables; Numerical computation & estimation (ratios, percentages, powers, exponents, logarithms, permutations & combinations, series); Mensuration & geometry; Elementary statistics & probability
Logical Reasoning	Logic (deduction & induction), analogy, numerical relations & reasoning; Transformation of shapes (translation, rotation, scaling, mirroring, assembling, grouping); Paper folding, cutting, patterns in 2D & 3D

Section B — Domain Knowledge (Post/Discipline-wise)

1. Graduate Engineer (Grade A)

Discipline	Syllabus Topics
Chemical	Engineering Mathematics; Process Calculation & Thermodynamics; Fluid Mechanics & Mechanical Operations; Chemical Reaction Engineering; Instrumentation & Process Control; Plant Design and Economics; Heat Transfer; Mass Transfer; Chemical Technology
Civil	Engineering Mathematics; Structural Engineering; Geotechnical Engineering; Water Resources Engineering; Environmental Engineering; Transportation Engineering; Geomatics Engineering
Computer Science & IT	Engineering Mathematics; Digital Logic; Computer Organization and Architecture; Programming and Data Structures; Algorithms; Theory of Computation; Compiler Design; Operating System; Databases; Computer Networks
Electrical	Engineering Mathematics; Electrical Machines; Power Systems; Control Systems; Electric Circuits; Electromagnetic Fields; Signals and Systems; Electrical and Electronic Measurements; Analog and Digital Electronics; Power Electronics
Electronics & Communication	Engineering Mathematics; Networks, Signals and Systems; Electronic Devices; Analog Circuits; Digital Circuits; Control Systems; Communications; Electromagnetics
Instrumentation	Engineering Mathematics; Control Systems; Analog Electronics; Digital Electronics; Electricity and Magnetism; Electrical Circuits and Machines; Signals and Systems; Measurements; Sensors and Industrial Instrumentation; Communication and Optical Instrumentation
Mechanical	Engineering Mathematics; Engineering Mechanics; Mechanics of Materials; Theory of Machines, Vibrations & Machine Design; Fluid Mechanics; Heat Transfer, Thermodynamics & Power Engineering; Fluid Mechanics and Thermal Sciences; Materials, Manufacturing and Industrial Engineering

2. Officer (Law) — Grade A

Category	Laws / Topics
Substantive Laws	Indian Contract Act 1872; Specific Relief Act 1963; Sale of Goods Act 1930; Transfer of Property Act 1882; Companies Act 2013; Insolvency & Bankruptcy Code 2016; Constitution of India (esp. Articles 32 & 226); Digital Personal Data Protection Act 2023; Competition Act 2002; Consumer Protection Act 2019; Right to Information Act 2005; Essential Commodities Act 1955; Legal Metrology Act 2009; Public Premises (Eviction of Unauthorised Occupants) Act 1971; Relevant SEBI guidelines applicable to IndianOil (LODR, Prohibition of Insider Trading, etc.)
Procedural Laws — Major	Arbitration & Conciliation Act 1996; Mediation Act 2023; Code of Civil Procedure 1908; Bharatiya Nagarik Suraksha Sanhita 2023; Bharatiya Sakshya Adhinyam 2023
Procedural Laws — Minor	Limitation Act 1963; Commercial Courts Act 2015

Note: Test is not purely theoretical — includes practical domain knowledge from the syllabus.

3. Officer (Marketing) — MBA Marketing Management — Grade A

#	Unit	Key Topics
1	Introduction to Marketing	Market, Marketing, Customer Needs/Wants/Demands, Marketing Orientations, Holistic Marketing, Marketing Mix, Recent Trends
2	Developing Marketing Strategy	Business Portfolio Strategies, Porter Generic Strategies, Value Chain Analysis, SWOT, Marketing Plan & Control, GTM Strategies, Customer Acquisition/Retention, Rural Marketing, B2B & B2C
3	Marketing Info & Forecasting	Marketing Environment Analysis, MIS, Demand Forecasting, Current/Future Demand Estimation
4	Marketing Research	Research Process, Instruments, Sampling Plan, Measuring Marketing Productivity
5	Consumer Behaviour & Industrial Markets	Factors Influencing Behaviour, Buying Decision Process/Behaviour, New Product Adoption, Business Buyer Behaviour, Key Account Management, Energy/Fuel Buying Behaviour
6	Segmentation, Targeting, Positioning	Market Segmentation, Targeting, Differentiation & Positioning
7	Product Decisions	Product Levels & Classification, NPD, Adoption Process, Product Life Cycle
8	Pricing Decisions	Pricing Strategies, New Product/Product-Mix Pricing, Price-Adjustment, Public Policy & Pricing
9	Services Marketing	Types, Managing, Gap Analysis, SERVQUAL, Customer Experience, Service Recovery
10	Distribution Decisions	Channel Management & Conflict, Integration, Logistics/SCM, Retail & Wholesale Management
11	Promotion Decisions	IMC, Communication Process, Promotion Mix, Advertising, Sales Promotion, Publicity, Personal Selling, Direct Marketing, Trade Promotion, Loyalty Programs, Digital Campaigns
12	Brand Management	Brand Equity Models, Brand Strategy, Portfolios, Corporate Branding, Brand Extension, Customer Perception
13	Marketing Ethics	Product/Price/Place/Promotion-related Ethics, Consumer Protection
14	Managing Marketing Organization	Organizing, Implementation & Control

15	Digital Marketing	Social Media, SEM/SEO, Mobile Marketing, Analytics, Digital Customer Journey
16	Social & Not-for-Profit Marketing	Socially Responsible Behaviour, Cause-Related & Sustainable Marketing
17	Customer Value & CRM	CLV, Profitability, Loyalty, Satisfaction, CRM, Database Marketing, CAC, Retention Metrics
18	International Marketing	International Decisions, Types of Global Firms
19	Competition Analysis	Competitive Strategies & Positions, Competitive Intelligence, Market Share Analysis, Benchmarking
20	Retail & Channel Management	Retail Models, Site Selection, Forecourt Retailing, Category Management, Visual Merchandising
21	Sales & Territory Management	Sales Forecasting, Territory Planning, KPIs, Dealer/Distributor Relations
22	Non-Fuel Retail (NFR) Marketing	NFR Models, Convenience Store Marketing, Partnerships, Footfall Monetization, Cross/Up-selling
23	Logos & Taglines	—
24	Strategic Management	Levels/Forms/Process of Strategy
25	External Analysis	PESTEL, ETOP, QUEST, Porter's 5 Forces, Impact Matrix, Strategic Group Mapping
26	Internal Analysis	Competitive Advantage, Value Chain, Benchmarking, SWOT, SFAS Matrix, SAP
27	Business Strategies	Generic Competitive Strategies, First Mover Advantage, Cooperative Strategies, Industry Life Cycle
28	Corporate Strategies	Growth, Stability, Retrenchment, Combination, Turnaround
29	Business Portfolio Analysis	BCG Matrix, IE Matrix, GE-McKinsey Matrix, Experience Curve, Grand Strategy Matrix, SPACE Matrix
30	Strategy Implementation & Evaluation	Structure, Control Mechanisms, McKinsey's 7S, Strategic Incentive Management
31	Managing Strategic Change	Barriers to Change, Change Models, Change Requirements

4. Assistant Quality Control Officer — Grade A0

Category	Topics
Testing & Analytical Equipment	HPLC, GC, UV-VIS Spectrophotometer, XRF, Micro-coulometer, CHNS, ICP (OES/MS), AAS, UV Fluorescence (Sulfur), Chromatography, FTIR, Karl Fischer Titration, DSC
Basic Chemistry Techniques	Titration types & indicators, Lambert-Beer Law, wet chemistry metal analysis, units of measurement, ppm-% conversion, repeatability/reproducibility/precision, analytical standards & CRMs, measurement uncertainty
Petroleum/Petrochemical Physical Properties	Flash Point, Pour Point, Aniline Point, Kinematic Viscosity & VI, Smoke Point, Octane Number, Cetane Number, Density, Distillation, Boiling Point Distribution, Aromatics, Melt Flow Index, UTM (polymer testing), Polymer additives
Product Specifications & Standards	LPG, Gasoline, HSD, Aviation Fuels, Bitumen, Lubes, PE & PP Polymers; ASTM/ISO/IS standards; ISO/IEC 17025

Water Chemistry	Physical/chemical properties, effluent & drinking water analysis, boiler water chemistry
Basic Chemistry (Domain Knowledge)	SI units, solution chemistry (Normality/Molarity/Molality/ppm/ppb), titration chemistry, name reactions, elementary thermodynamics, catalyst chemistry, states of matter, organic nomenclature, basic polymer chemistry & Ziegler-Natta catalyst, lab safety, glassware identification, calibration (spectrophotometer, balance), solvent polarity, chemical bonds & reactions
Basic Organic Chemistry	Hydrocarbons (alkanes/alkenes/alkynes); Functional groups (alcohols, ketones, acids)
Laboratory Safety	Chemical storage & labelling, PPE, safe glassware handling, safe/unsafe conditions & acts, near-miss reporting

5. Diploma Engineer — Grade E0

Discipline	Syllabus Topics
Electrical	Introduction to Electric Generation Systems; Electrical Circuit Theory; Electrical Machines; Electronic Devices & Circuits; Power Electronics; Electrical & Electronic Measurements; Digital Electronics; Transducers & Signal Conditioners; Electric Power Transmission & Distribution; Microcontroller, PLC & Microprocessor; Electrical Estimation, Energy Auditing & Conservation; Electrical Properties of Materials; Electrical Machine Controller; Control Systems (Analysis & Modelling); Signals and Systems; Illumination Practices; Building Electrification; Renewable Energy Power Plant
Mechanical	Basic Mechanical Engineering; Computer Aided Machine Drawing; Material Science and Engineering; Fluid Mechanics and Hydraulic Machinery; Manufacturing Engineering; Thermal Engineering; Measurements & Metrology; Strength of Materials; Advanced Manufacturing Processes; Theory of Machines & Mechanisms; Industrial Engineering & Management; Design of Machine Elements; Production and Operations Management; Pneumatic Tools and Systems
Safety	Introduction to Industrial Safety (SMS, HIRA, PPE, Emergency Response, Accident Investigation, Behavior-Based Safety); Industrial Hazards & Risk Management (physical/chemical/biological/ergonomic hazards, fire, electrical, confined space, working at heights, LOTO); Fire Prevention & Safety Management; Electrical Safety & Hazard Control; Mechanical Safety & Machine Maintenance; Chemical Safety & Hazardous Material Handling; Construction Safety; Maintenance Safety; Industrial Legislation & Labour Laws (Factories Act 1948 Ch. IV/IV-A/V, Environment Protection Act 1986, Petroleum Act, Explosives Act, BOCW Act)

Official source: IOCL detailed syllabus PDFs (indicative), hosted at iocl.com/latest-job-opening under "Recruitment of Executives... CBT 2026."