



# ગુજરાત જાહેર સેવા આયોગ

છ-૩ સર્કલ પાસે, છ રોડ, સેક્ટર-૧૦/એ, ગાંધીનગર-૩૮૨૦૧૦

જા.ક.૧૩/૨૦૨૦-૨૧

જગ્યાનું નામ: મુખ્ય ઔદ્યોગિક સલાહકાર, વર્ગ-૧

(ઉદ્યોગ અને ખાણ વિભાગ)

ભાગ-૧ અને ભાગ-૨ ના ૧૮૦ મિનિટના સંયુક્ત પ્રશ્નપત્રની પ્રાથમિક

કસોટીનો અભ્યાસક્રમ

પ્રાથમિક કસોટીનો અભ્યાસક્રમ	
ભાગ-૧	
માધ્યમ: ગુજરાતી	
કુલ ગુણ : ૧૦૦	
૧	ભારતની ભૂગોળ- ભૌગોલિક, આર્થિક, સામાજિક, કુદરતી સંસાધન અને વસ્તી અંગેની બાબતો- ગુજરાતના ખાસ સંદર્ભ સાથે
૨	ભારતનો સાંસ્કૃતિક વારસો- સાહિત્ય, કલા, ધર્મ અને સ્થાપત્યો- ગુજરાતના ખાસ સંદર્ભ સાથે
૩	ભારતનો ઇતિહાસ- ગુજરાતના ખાસ સંદર્ભ સાથે
૪	ભારતની અર્થવ્યવસ્થા અને આયોજન
૫	<u>ભારતીય રાજનીતિ અને ભારતનું બંધારણ:</u> (૧) આમુખ (૨) મૂળભૂત અધિકારો અને ફરજો (૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો (૪) સંસદની રચના

	(૫) રાષ્ટ્રપતિની સત્તા (૬) રાજ્યપાલની સત્તા (૭) ન્યાયતંત્ર (૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ (૯) એટર્ની જનરલ (૧૦) નીતિ આયોગ (૧૧) પંચાયતી રાજ (૧૨) નાણા પંચ (૧૩) બંધારણીય તથા વૈધનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્ટ્રોલર એન્ડ ઓડિટર જનરલ; કેન્દ્રીયસતર્કતા આયોગ, લોકપાલ તથા લોકાયુક્ત અને કેન્દ્રીય માહિતી આયોગ
૬	સામાન્ય બૌદ્ધિક ક્ષમતા કસોટી
૭	સામાન્ય વિજ્ઞાન, પર્યાવરણ અને ઈન્ફર્મેશન એન્ડ કોમ્યુનિકેશન ટેકનોલોજી
૮	ખેલ જગત સહિત રોજબરોજના પ્રાદેશિક, રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય મહત્વના બનાવો

<b>Syllabus of Preliminary Test</b>	
<b>Part-1</b>	
<b>Medium: Gujarati</b>	<b>Total Marks-100</b>
1	Geography of India-Physical, Economic, Social, Natural Resources and population related topics- with special reference to Gujarat
2	Cultural heritage of India-Literature, Art, Religion and Architecture- with special reference to Gujarat
3	History of India with special reference to Gujarat
4	Indian Economy and Planning
5	<u>Indian Polity and the Constitution of India:</u> 1. Preamble 2. Fundamental Rights and Fundamental Duties 3. Directive Principles of State Policy 4. Composition of Parliament 5. Powers of the President of India 6. Powers of Governor 7. Judiciary 8. Provisions for Scheduled Castes, Scheduled Tribes and backward classes of the society 9. Attorney General 10. NITIAayog

	11. Panchayati Raj Institutions 12. Finance Commission 13. Constitutional and Statutory Bodies: Election Commission of India, Union Public Service Commission, State Public Service Commission, Comptroller and Auditor General; Central Vigilance Commission, Lokpal and Lokayukta, Central Information Commission
6	General Mental Ability
7	General Science, Environment and Information & Communication Technology
8	Daily events of Regional, National and International Importance including Sports

## Part-2

# Syllabus for the preliminary test for the recruitment on the post of Chief Industrial Advisor, Class-I under Industries and Mines Department

**Marks – 200**

**Questions – 200**

**Medium - English**

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### **1. Important Engineering Materials**

Properties of materials, Ferrous & Nonferrous materials and other important engineering materials such as Timber, Abrasive material, silica, ceramics, glass, graphite, diamond, plastic, polymer and composite material.

**Lubricants:** Definition, Types, classification and their properties, Functions.

**Natural and Synthetic Fibres:** Introduction, Definition of Fibre, Types of fibres – Natural, semi synthetic, synthetic fibres. Physical properties of fibres. Essential requirement for fibre for formation. Preparation, properties and uses of Cellulose acetic, Viscose Rayon, Nylon, Polyesters acrylic, Glass fibres etc. Differentiate between wool and silk fibres. Spinning processes – Melt and Wet spinning.

### **2. Elements of Mechanical Engineering**

**Introduction:** Prime movers, Sources of energy, Types of prime movers, Force and mass, Pressure, Work, Power, Energy, Heat, Temperature, Units of heat, Specific heat capacity, Interchange of heat, Change of state, Mechanical equivalent of heat, Internal energy, Enthalpy, Entropy, Efficiency, Statements of Zeroth Law, First law and Second Law of Thermodynamics.

### **3. Elements of Electrical Engineering**

**D.C. Circuits:** Effect of Temperature upon Resistance, Solutions of series, in brief, star-delta combination of Resistances, KVL & KCL.

**Single Phase A.C. Circuits:** Generation Of Alternating Voltages & Currents, Their Equations, Definitions, R.M.S. And Average Values , Vector Representation Of Alternating Quantities , Addition And Subtraction Of Vectors , Complex Algebra., Phasor Relations Between Voltage And Current In Each Of Resistance, Inductance And Capacitance , A.C. Series And Parallel Circuits ,Power And Power Factor ,

Methods Of Circuit Solution (Analytically & Vectorially), Resonance In Series And Parallel Circuits.

**Electrical Wiring:** Connectors & switches, system of wiring, domestic wiring installation, sub circuits in domestic wiring, simple control circuit in domestic installation, industrial electrification.

**Illumination:** Types of lamps, fixtures & reflectors, illumination schemes for domestic, industrial & commercial premises, Lumen requirements for different categories.

**Safety & protection:** Safety, electric shock, first aid for electric shock other hazards of electrical laboratories & safety rules, use of multi meters, grounding, importance of grounding, equipment of grounding for safety. Circuit protection devices, fuses, MCB, ELCB & relays.

4. **Energy:** types, classification and resources; Clean energy resources; Destruction and Conservation.

#### 5. Elements of Computer and IT Engineering

Introduction, Basic block Diagram and functions of various components of computer. Concept of Hardware and Software. Concept of basic types of software. Introduction to programming and programming languages. Flow charts and algorithms. Computer Networks. Computer Organization and Architecture.

#### 6. Economic System and Business

Economic System: capitalism, socialism and mixed economy, National Income, Monetary and Fiscal Policy (finance commission), Industrial Policy, Union Budget, Social Environment, Technological Environment, International Business Environment.

#### 7. Small Business & Management of MSMEs

Concept & Definition, Role of Small Business in the modern Indian Economy, Small entrepreneur in International business; Steps for starting a small industry, registration as SSI, Role of SIDBI; advantages and problems of SSIs; Institutional Support mechanism in India; Incentives & Facilities, Govt. Policies for SSIs, Setting MSMEs- location of enterprise - steps in setting - Problems of entrepreneurs - Sickness in small industries - reasons and remedies – Incentives and subsidies - Evaluating entrepreneurial performance - Rural entrepreneurship - Women Entrepreneurship.

**8. Organizational setup and functions of various departments/ divisions/ institutions/ boards under** Ministry of Commerce and Industry, Ministry of Micro, Small and Medium Enterprises, Ministry of New and Renewable Energy, Ministry of Power and Ministry of Food Processing Industries.

**9. Various Government Policies and Acts:**

Gujarat Industrial Policy 2020; Gujarat Vibrant Summit; State Government's Cluster Development Policy and various R & D institutions; State Government's Cottage and Rural Industries Policy 2016; The Micro, Small and Medium Enterprises Development Act, 2006; Gujarat Micro, Small and Medium Enterprises (Facilitation of Establishment and Operation) Act, 2019; Comprehensive Agro Business Policy (2016-21) of Government of Gujarat; The Gujarat Special Economic Zones Act, 2004; Special Economic Zones Act 2005 of Government of India; The Gujarat Industrial Development Act, 1962; Electronics & IT ITeS Start Up Policy(2016-21); Gujarat Textile Policy 2012; Gujarat Mining Policy, 2003; Industrial Park, Logistic Park, Textile Parks; Diamond Industry; National Pollution Prevention Policy and Laws; Technology up gradation Scheme; Central and State Government's Various Policies of energy sector including Solar Power Policies.

**10. Mega industrial infrastructure projects**

Delhi - Mumbai Industrial Corridor (DMIC), Dholera Special Investment Region (D-SIR), Mandal Becharaji Special Investment Region (MBSIR), Mumbai Ahmedabad High Speed Rail, Petroleum, Chemicals and Petrochemicals Investment Region (PCPIR), Gujarat International Financial Tech (GIFT) City, Diamond Research and Mercantile (DREAM) City, 30,000 MW Renewable Energy Target by 2022

**11.Environment Aspects: Issues and Global Response to it, Various Acts, Rules & International Conventions**

Pollution - types, global warming, green house effects, ozone layer depletion, acid rain, impact and control measures, environmental monitoring; concept of sustainable development. Environmental policy and legislation in India.

Global conventions related to Environment including UNCED (United Nations Conference on Environment and Development), UNFCCC (United Nations Framework

Convention on Climate Change). India's response to the Global Conventions and treaties. Institutional Framework in India for conservation of Environment.

- 12. Economic Reforms since 1991. Ease of Doing Business. FDI Policy in India.**
- 13. Rehabilitation of Sick enterprises. Green practices and improving environmental infrastructure.**
- 14. Various Schemes for Industrial Development of Central Government and Gujarat State Government.**
- 15. Industrial Finance in India: An Overview, Challenges and Recent Trends**
- 16. Application of E-Governance and ICT in Industries.**
- 17. Current Trends and Recent Advancements in the field of Industrial Development.**