

પ્રાથમિક કસોટીનો અભ્યાસક્રમ

પ્રશ્નપત્ર-૧

જાહેરાત ક્રમાંક :-

જાહેરાતનું નામ :- એનેસ્થેટિસ્ટ, (કા.સા.વિ.ચો) વર્ગ-૦૧

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	<p>ભારતીય રાજનીતિ અને ભારતનું બંધારણ:</p> <p>(૧) આમુખ</p> <p>(૨) મૂળભૂત અધિકારો અને ફરજો</p> <p>(૩) રાજ્યનીતિના માર્ગદર્શક સિદ્ધાંતો</p> <p>(૪) સંસદની રચના</p> <p>(૫) રાષ્ટ્રપતિની સત્તા</p> <p>(૬) રાજ્યપાલની સત્તા</p> <p>(૭) ન્યાયતંત્ર</p> <p>(૮) અનુસૂચિત જાતિ, અનુસૂચિત જનજાતિ અને સમાજના પછાત વર્ગો માટેની જોગવાઈઓ</p> <p>(૯) એટર્ની જનરલ</p> <p>(૧૦) નીતિ આયોગ</p> <p>(૧૧) પંચાયતી રાજ</p> <p>(૧૨) નાણા પંચ</p> <p>(૧૩) બંધારણીય તથા વૈધનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, સંઘ લોક સેવા આયોગ, રાજ્ય લોક સેવા આયોગ, કોમ્પ્ટ્રોલર એન્ડ ઓડિટર જનરલ; કેન્દ્રીય સતર્કતા આયોગ, લોકપાલ તથા લોકાયુક્ત અને કેન્દ્રીય માહિતી આયોગ</p>
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

Syllabus of Preliminary Test
Paper-1

Adv. No. :

The post of : Anesthetist, (E.S.I.S) Class – 01

Medium: Gujarati

Total Marks- 100

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) NITI Aayog (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

**Syllabus for the preliminary test for the recruitment on the post of
Anaesthetist (Specialist Service), Class I in Gujarat Medical Services and
Services under Employees State Insurance Scheme**

Marks – 200

Questions - 200

Medium - English

1. Anatomy related to:

- Diaphragm, upper and lower airway.
- Regional anaesthesia, field block, central neuraxial, blockade, block for acute painstates.
- Intramuscular injections, arterial and venous cannulations and positioning.

2. Physics related to:

- Anaesthesia machine - assembly of necessary items.
- Airway equipment including laryngoscopes, airway devices.
- Breathing systems.
- Monitoring in anaesthesia with concepts of minimum monitoring
- Gas laws, medical gas supply system
- Fluidics
- Electricity and diathermy
- Oxygen therapy
- Theories of anaesthesia
- Respiratory, cardiovascular, hepatobiliary, renal and endocrine system, pregnancy, blood, muscle and N-M junction, Nerve impulse transmission, ECG, regulation of temperature and metabolism, stress response, cerebral blood flow and ICP.
- Central, autonomic and peripheral nervous systems.
- Metabolic response to stress and trauma equipment's used in anaesthesia monitors, ventilators, vaporizers, fibroptics Laser, Pacemaker and defibrillator, Monitoring equipment used for assessment of cardiac functions, temperature, respiratory functions,

blood gases, intracranial pressure, depth of anaesthesia and neuromuscular block.

- Sterilization of equipment
- Computers in anaesthesia
- Pharmacology of drugs used in cardiovascular, respiratory, endocrine, renal diseases and CNS disorders.
- Interpretation of blood gases and other relevant biochemical values, various function tests and basics of measurement techniques, ECG.
- Blood coagulation mechanism, disturbances, and blood components.
- Special anaesthetic techniques as relevant to: Outpatient anaesthesia, hypotensive anaesthesia, anaesthesia in abnormal environments including rural area and calamitous situations
- Associated medical disorders in surgical patients
- Geriatric and paediatric anaesthesia
- Emergency, ENT, orthopaedic, ophthalmology, obstetrics, dental, radio-diagnosis and radiotherapy.
- Medical statistics relevant to data collection, analysis, record keeping in anaesthesia, comparison and estimation of significance.
- Care of terminally ill, Hospices management. Do not resuscitate orders.
- Postures and anaesthesia.
- Induced hypothermia, incidental, and environmental safety of patient.
- Malignant hyperthermia, myasthenia gravis, GB syndrome and other neuromuscular diseases, obesity, COPD, Diabetes mellitus, bronchial asthma and hypertensive crises
- Third world anaesthesia.
- Inherited metabolic diseases and anaesthesia.
- Anaesthesia for patients with severe cardiac, respiratory, renal and hepatobiliary disorder posted for unrelated surgery Shock, types, pathogenesis and management of patients in shock, renal failure, critically ill and/or on ventilator, multiple organ failure, Infection control, cross contamination in OT and ICU.

- Selection, maintenance and sterilization of anaesthesia and related equipment
- Chronic pain therapy and therapeutic nerve blocks.
- Acupuncture, acupressure and other non-conventional methods of treatment.
- Principles of neonatal resuscitation, ventilation and critical care.
- Principles of human resources and material management.
- General principles of medical audit. Critical incident reporting
- Ethics and clinical trial.
- Hospital, ICU and OT design and planning.
- Medical education including evidence based medical education.
- Anaesthesia machine - assembly of necessary items.
- Airway equipment including laryngoscopes, airway devices
- Breathing systems
- Monitoring in anaesthesia with concepts of minimum monitoring
- Gas laws, medical gas supply system
- Fluidics
- Electricity and diathermy
- Oxygen therapy
- Theories of anaesthesia
- Respiratory, cardiovascular, hepatobiliary, renal and endocrine system, pregnancy, blood, muscle and N-M junction, Nerve impulse transmission, ECG, regulation of temperature and metabolism, stress response, cerebral, blood flow and ICP. Central, autonomic and peripheral nervous systems.
- Metabolic response to stress and trauma.
- Principles of anaesthetic management of neuro/ cardiac/ thoracic/ vascular/ transplantation/ burns and plastic surgery.
- Multiple organ failure
- Infection control, cross contamination in OT and ICU.
- Immune response and anaesthesia.
- Concept of cytokines, and other enzymes.

3. **Pharmacology related to**

- General principles, concepts of pharmacokinetics and pharmacodynamics
- Drug interactions in anaesthesiology, anaphylactic reactions
- Drugs used for premedication, induction of anaesthesia, general anaesthetics-intravenous and inhalational, neuromuscular block and reversal of muscle relaxants.

4. **Biochemistry**

- Related to fluid balance and blood transfusion, perioperative fluid therapy, acid base homeostasis in health and diseases.
- Theoretical background of the commonly used anaesthetic techniques of general and regional anaesthesia, general principles of pre-aesthetic assessment and medication, recovery from anaesthesia and post-operative care, effects of positioning during anaesthesia.
- Introduction to the operation theatre, post-anaesthesia care rooms
- Introduction to acute, chronic pain and pain management.
- Documentation and medico-legal aspects of anaesthesia.
- Defensive anaesthesia.
- Concept of informed consent.
- Resuscitation - basic and advanced life support (cardiac and trauma life support), neonatal
- Intensive care of critical patients with introduction to artificial ventilation, management of unconscious patients, oxygen therapy, shock - pathophysiology and management.
- Introduction to Research methodology basics of biostatistics.

5. **Current Trends and Recent Advancements in Anaesthesiology.**