

પ્રાથમિક કસોટીનો અભ્યાસક્રમ

પ્રશ્નપત્ર-૧

જાહેરાત ક્રમાંક :-

જાહેરાતનું નામ :- પેથોલોજિસ્ટ, (કા.આ.વિ.યો) 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 : Pathologist, (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

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

Marks – 200

Questions - 200

Medium - English

1. Microbiology:

- Stool examination
- AFB staining of sputum
- Bacterial culture

2. Clinical Biochemistry:

- Renal function tests, Liver function tests, Sugar estimation in blood and urine
- principles and methodology of quality control in laboratory.

3. Pathologic Anatomy:

A) General Pathology: Normal cell and tissue structure and function. The changes in cellular structure and function in disease. Causes of disease and its pathogenesis. Reaction of cells, tissues, organ systems and the body as a whole to various sub lethal and lethal injuries.

B) Systemic Pathology: The study of normal structure and function of various organ systems and the aetiopathogenesis, gross and microscopic alterations of structure of these organ systems in disease and functional correlation with clinical features.

C) Haematology: The study of Haematology includes all aspects of the diseases of the blood and bone marrow. This would involve the study of the normal, and the causes of diseases and the changes thereof.

Laboratory Medicine (Clinical Biochemistry/Clinical Pathology including Parasitology), Transfusion Medicine (Blood Banking),

Immunopathology, Electron microscopy, Histochemistry, Immunohistochemistry, Cytogenetics, Molecular Biology, Maintenance of records, Information retrieval, use of Computer and Internet in medicine, Quality control, waste disposal

Transfusion Medicine (Blood Banking) Knowledge:

Basic immunology, ABO and Rh groups, Clinical significance of other blood groups, Transfusion therapy including the use of whole blood and RBC concentrates, Blood component therapy, Rationale of pre-transfusion testing. Infections transmitted in blood. Adverse reactions to transfusion of blood and components, Quality control in blood bank

Basic Sciences (in relation to Pathology)

- a) **Immunopathology:** ELISA techniques, Radioimmunoassay, HLA typing- Interpret simple immunological tests used in diagnosis of diseases and in research procedures. Immunoelectrophoresis, Immunofluorescence techniques especially on kidney and skin biopsies, Anti-nuclear antibody (ANA) Anti-neutrophil cytoplasmic antibody (ANCA)

- b) **Electron Microscopy:** Principles and techniques of electron microscopy and the working of an electron microscope (including Transmission and Scanning Electron microscope: TEM and SEM)

- c) **Enzyme Histochemistry:** Principles, use and interpretation of commonenzyme histochemical procedures (Alkaline Phosphatase, Acid Phosphatase, Glucose-6-Phosphate Dehydrogenase, Chloroacetate Esterase).

- d) Immunohistochemistry:** Principles and exact procedures of various immunohistochemical stains using both PAP (Peroxidase-antiperoxidase) and AP-AAP (Alk. Phosphatase-anti-Alk. Phosphatase) ABC (Avidin-Biotin Conjugate) systems; employing monoclonal and polyclonal antibodies. Be aware of the limitations of immuno-histochemistry.
- e) Molecular Biology:** Molecular biology especially related to the understanding of disease processes and its use in various diagnostic tests. Principle and steps and interpretation of Polymerase Chain Reaction (PCR), Western Blot, Southern Blot, Northern Blot and Hybridisation) procedures.
- f) Cytogenetics:** Methods of Karyotyping and Fluorescent in-situ Hybridisation (FISH).
- g) Tissue Culture:** Methods of tissue culture.
- h) Principles of Medical Statistics:** Importance of statistical methods in assessing data from patient material and experimental studies.

9. Current Trends and Recent Advancements in Pathologist.