



ગુજરાત જાહેર સેવા આયોગ

સેક્ટર - ૧૦-એ, ૯-૩ સર્કલ પાસે, ૯ રોડ,
ગાંધીનગર - ૩૮૨૦૧૦

ખ.ક:૧૯/૨૦૨૪-૨૫ સાયન્ટિફિક ઓફિસર(ફોરેન્સિક સાયકોલોજી), વર્ગ ૨-ની જગ્યા પર
ભરતી માટેની પ્રાથમિક કસોટીમાં ભાગ-૧ અને ભાગ-૨ ના ૧૮૦ મિનિટના સંયુક્ત
પ્રશ્નપત્રનો અભ્યાસક્રમ

સીધી પસંદગીથી ભરતીની પ્રાથમિક કસોટીનો અભ્યાસક્રમ		
ભાગ-૧		
માધ્યમ: ગુજરાતી અને અંગ્રેજી.		કુલ ગુણ : ૧૦૦
મુદ્દા	વિષય	ગુણ
૧	ભારતની ભૂગોળ- ભૌગોલિક, આર્થિક, સામાજિક, કુદરતી સંસાધન અને વસ્તી અંગેની બાબતો- ગુજરાતના ખાસ સંદર્ભ સાથે	૩૦
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	ભારતીય રાજનીતિ અને ભારતનું બંધારણ: (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 બેગવાઈઓ (૯) નીતિ આયોગ (૧૦) બંધારણીય તથા વૈધાનિક સંસ્થાઓ- ભારતનું ચૂંટણી પંચ, કોમ્પ્યુટર એન્ડ ઓડિટર જનરલ, માહિતી આયોગ	
૬	સામાન્ય વિજ્ઞાન, પર્યાવરણ અને ઇન્ફર્મેશન એન્ડ કોમ્યુનિકેશન ટેકનોલોજી	૧૦
૭	ખેલ જગત સહિત રોજબરોજના પ્રાદેશિક, રાષ્ટ્રીય અને આંતરરાષ્ટ્રીય મહત્વના બનાવો	૧૦

<p>૮</p>	<p>સામાન્ય બૌદ્ધિક ક્ષમતા કસોટી</p> <p>(૧) તાર્કિક અને વિશ્લેષણાત્મક ક્ષમતા</p> <p>(૨) સંખ્યાઓની શ્રેણી સંકેત અને તેનો ઉકેલ.</p> <p>(૩) સંબંધ વિષયક પ્રશ્નો.</p> <p>(૪) આકૃતિઓ અને તેના પેટા વિભાગ, વેન આકૃતિઓ</p> <p>(૫) ઘડીયાળ, કેલેન્ડર અને ઉમર સંબંધિત પ્રશ્નો.</p> <p>(૬) સંખ્યા વ્યવસ્થા અને તેના માનક્રમ.</p> <p>(૭) રૈખિક સમીકરણ (એક કે બે ચલમાં)</p> <p>(૮) પ્રમાણ, હિસ્સો અને ચલ.</p> <p>(૯) સરેરાશ યા મધ્યક, મધ્યસ્થ અને બહુલક, ભારિત સરેરાશ. .</p> <p>(૧૦) ઘાત અને ઘાતાંક, વર્ગ, વર્ગમૂળ, ઘનમૂળ, ગુ.સા.અ. અને લ.સા.અ</p> <p>(૧૧) ટકા, સાદુ અને ચક્રવૃદ્ધિ વ્યાજ, નહો અને ગુકશાન.</p> <p>(૧૨) સમય અને કાર્ય, સમય અને અંતર, ઝડપ અને અંતર.</p> <p>(૧૩) સરળ ભૌતિક આકૃતિઓના ક્ષેત્રફળ અને પરિમિતિ, જથ્થો અને સપાટીનો વિસ્તાર (છ સમાંતર બાજુ ધરાવતો ઘન, ઘન, સિલિન્ડર, શંકુ આકાર, ગોળાકાર).</p> <p>(૧૪) રેખા, ખૂણા અને સામાન્ય ભૌમિતિક આકૃતિઓ-સાદી કે ત્રાંસી સમાંતર રેખાઓના ગુણધર્મો, ત્રિકોણની સાપેક્ષ બાજુઓના માપનના ગુણધર્મો, પાયથાગોરસનો પ્રમેય, ચતુર્ભૂજ, લંબગોળ, સમાંતર બાજુ ચતુષ્કોણ, સમભૂજ ચતુષ્કોણ.</p> <p>(૧૫) બીજગણિતનો પરિચય-BODMAS-કાનાભાગુવઓ-વિચિત્ર પ્રતિકોની સરળ સમજૂતિ.</p> <p>(૧૬) માહિતીનું અર્થઘટન, માહિતીનું વિશ્લેષણ, માહિતીની પર્યાપ્તતા, સંભાવના</p>	<p>30</p>
<p>૯</p>	<p>ગુજરાતી વ્યાકરણ</p> <p>(૧) ખેડણી</p> <p>(૨) સમાનાર્થી-વિરુદ્ધાર્થી શબ્દો</p> <p>(૩) રૂઢિપ્રયોગો અને કહેવતો</p> <p>(૪) સમાસ</p> <p>(૫) સંધિ</p> <p>(૬) અલંકાર</p> <p>(૭) છંદ</p>	<p>૧૦</p>

૧૦	<p>English Grammar</p> <p>(1) Articles, Pronouns, Adjectives, Prepositions, Conjunctions and Question tag.</p> <p>(2) Verb and Tense, Agreement between subject and verb, Gerund, Participles.</p> <p>(3) Modal auxiliaries. Usage of can, may, could, should, etc.</p> <p>(4) Use of some, many, any, few, a little. Since and for.</p> <p>(5) Active and passive voice</p> <p>(6) Degrees of adjectives.</p> <p>(7) Common errors of usage.</p>	૧૦
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❖ મુદ્દા હમાંક ૮ થી ૧૦ માટેનો અભ્યાસક્રમ ધોરણ- ૧૨ સમકક્ષ રહેશે.

Syllabus for preliminary test for recruitment from Direct Selection Part-1		
Medium: Gujarati and English		Total Marks: 100
Point No	Subject	Marks
1	Geography of India – Geographical, Economic, Social, Natural Resources and Population related topics – With Special reference to Gujarat	30
2	Cultural Heritage of India – Literature, Arts, Religion and Architecture - With Special reference to Gujarat	
3	History of India- With Special reference to Gujarat	
4	Indian Economy and Planning	
5	Indian Politics and Constitution of India: (1) Preamble (2) Fundamental Rights and Fundamental Duties (3) Directive Principals of State Policy (4) Composition of Parliament (5) Powers of the President of India (6) Powers of Governor (7) Judiciary (8) Provisions for Scheduled Casts, Scheduled Tribes and Backward Classes of the society (9) NITI Aayog (10) Constitutional and Statutory Bodies: Election Commission of India, Comptroller and Auditor General, Information Commission	
6	General Science, Environment and Information & Communication Technology	10
7	Daily events of Regional, National and International Impotence including Sports	10
8	General Mental Ability Test (1) Logical Reasoning and Analytical Ability (2) Number Series, Coding-Decoding (3) Questions about relationship. (4) Shapes and their Sub-sections, Venn Diagram (5) Questions based on Clock, Calendar and Age (6) Number system and order of Magnitude (7) Linear Equations - in one or two Variables (8) Ratio, Proportion and Variation (9) Average of Mean, Median, Mode- including weighted Mean (10) Power and Exponent, Square, Square Root, Cube Root, H.C.F. & L.C.M. (11) Percentage, Simple and Compound Interest, Profit and Loss (12) Time and Work, Time and Distance, Speed and Distance (13) Area and Perimeter of Simple Geometrical Shapes, Volume and Surface Area of Sphere, Cone, Cylinder, Cubes and Cuboids (14) Lines, Angels and Common geometrical figures - properties of transverse or parallel lines, properties related to measure sides of a triangle, Pythagoras theorem, quadrilateral, rectangle, Parallelogram and rhombus.	30

	(15) Introduction to algebra-BODMAS, simplification of weird Symbols. (16) Data interpretation, Data Analysis, Data sufficiency, Probability	
9	Gujarati Grammar (૧) જેડણી (૨) સમાનાર્થી-વિરુદ્ધાર્થી શબ્દો (૩) રૂઢિપ્રયોગો અને કહેવતો (૪) સમાસ (૫) સંધિ (૬) અલંકાર (૭) છંદ	10
10	English Grammar (1) Articles, Pronouns, Adjectives, Prepositions, Conjunctions and Question tag. (2) Verb and Tense, Agreement between subject and verb, Gerund, Participles. (3) Modal auxiliaries. Usage of can, may, could, should, etc. (4) Use of some, many, any, few, a little. Since and for. (5) Active and passive voice (6) Degrees of adjectives. (7) Common errors of usage.	10

❖ The standard of the syllabus for point no. 8 to 10 will be equivalent to Standard 12.

**Syllabus for the Preliminary Test for the recruitment of Scientific Officer (Forensic Psychology),
(FSL), Class-II**

Marks – 200

Questions-200

Medium: English

1. Forensic Psychology, Forensic Sciences & Theories of Crime

Basic Principles and its Significance. History & Development of Forensic Psychology; Forensic Science, Fields & Subfields of Forensic Psychology & Forensic Sciences. Organizational Structure of Forensic Science Laboratories at Central & State Level. Ethics in Forensics. Differences between Forensic Psychology & Forensic Sciences & Type of approach: Trait approach, Psychodynamic approach, Behavioral approach; Developmental Psychology and Criminal Behavior; Cognitive Psychology and Criminal Behavior. Definition, Theories of Causation of Crime: Pre-classical and Neo-classical, Constitutional, Geographical, Economic, Psychological, Sociological, Multiple-Causation Approach, General Factors of Crime.

2. Forensic Interview

Police Interviewing and Interrogation; SOP of Interview, types of interview, differences between forensic and clinical interview. Importance of interview at Crime Scene & before administration of Forensic Psychological investigation techniques.

3. Psychological Disorders, Criminal Behavior & Psychological Assessments.

Concept of Abnormality and Mental Illness; Personality Disorders (Definition and Symptoms); Substance Related Disorders (Definition and Symptoms); Sexual Dysfunctions (Definition and Symptoms); Psychotic Disorders (Definition and Symptoms); Psychology of Aggressive and violent Crimes; Psychology of Sexual assaults. Concepts, Evolution, and Uses of Psychological Testing; Consent, Confidentiality, Types of Psychological Tests and Ethical Issues in Assessment Process; Cognitive Interview- PEACE model of training & Reid Technique of Interrogation; Cognitive Assessments Screening Tests- MMSE, Addenbrooke Cognitive Examination Test assessment of Memory- PGI Memory Scale; Risk Assessment, Raven's Progressive Matrices, PCL-R, Beck's Depression Inventory. Hamilton Anxiety Rating Scale. Yale Brown's Obsessive Compulsive Scale. Brief Psychological Rating Scale.

4. Detection of Deception: Polygraph

History; Basic Physiology (Circulation system, Respiration system, Skin conductance, Muscular activity) and Psychological aspects (Autonomic Nervous system) of Polygraph; Scientific Basis of Polygraph; Sensors used for Polygraph recording; Administration, Testing Procedure (Pre-test, administration, Post-test); Types of Questionnaire and approaches, Scoring and Analysis; Report-writing; Related Case Studies.

5. Detection of Deception: Suspect Detection system (SDS) & Narcoanalysis.

SDS: History; Scientific Basis (Physiological & Theoretical understanding); Instrument (Hardware & Software) & its Underlying Mechanisms; Testing Procedure; Types of Questions; Results and Analysis; Report- writing; Case Studies;

Narcoanalysis: History; Scientific Basis (Physiological & Theoretical Understanding), Instrument & its underlying mechanisms, General Technique; Testing Procedure (Pre-test, administration & Post-test) and Requirements; Application of Narco-analysis in Medical and Non-medical Set-ups; Narco-interview; Ethical Issues in Narco- analysis; Report-writing; Related case studies; Admissibility in Court.

6. Layered Voice Analysis (LVA) and Voice Stress Analysis (VSA) Technique.

History; Scientific Basis (Physiological & Theoretical Understanding); Different mode of investigation (Online, Offline, Investigation & Recording); Online mode (Administration; Pre-test; Stand-by mode; During the test; Online Floating Screen; Detailed instructions for using the Online mode; Online Mode Messages and their meaning; Advanced analysis features) & Offline mode (Offline Wizard main screen, Advanced features in the Test Database; Analyzing a wave file - Offline Wizard step-by-step; Reviewing the analyzed Test Cases; Post Analysis features); Parameters & graphs; Report-writing; Related case studies. Voice stress analysis technique.

7. Brain Electrical Oscillations Signature Profiling (BEOS)

Electrical properties of neuron; Principle of EEG & ERP; Amplitude & Latency; Working mechanism & scientific basis of BEOS; Concept of Experiential Knowledge; Scientific basis of probe-designing; Probe-ids; Event markers, Testing Procedure (Pre-test, administration & Post-test) and Requirements; Report-writing; Related case studies; Admissibility in Court.

8. Research Methods & Statistics

Levels of Measurement of Psychological Variables - Nominal, Ordinal, Interval and Ratio Scales. Descriptive Statistics Various Methods to Present Data. Measures of Central Tendency and Dispersion. Skewness. Kurtosis. Probability and Non-Probability Sampling. Various Methods of Sampling (Simple Random, Stratified, Systematic, Cluster and Multistage Sampling). Sampling and Non-Sampling Errors. Methods of Minimizing these Errors. Null hypothesis. Alternate hypothesis. Concept of standard error and confidence interval. Type-I & Type-II errors. Level of significance. Power of the test. Concept of parametric and Non-parametric Tests. 'z'-test. 't' test. Requirements. Sign test. Sign rank test. Median test. Mann Whitney 'U' test. Wilcoxon rank sum test. Chi-square distribution and Chi-square test. Analysis of Variance, Test Construction, Correlation and Regression.

9. Laws, Evidence & Expert Testimony at Court

Criminal Procedure Code: Introduction and General Idea of Sections: 291- 293, 154, 155, 156, 157, 158, 159, 160, 161, 162, 172, 173, 174, 175 and 176. Indian Evidence Act: Introduction and General Idea of Sections: 32, 45, 46, 47, 57, 58, 60, 73, 135, 136, 137 and 159. Concept of Crime and Liabilities under Indian Penal Code (offence, injury- Applicability, Abatement, Punishment) – Body Related offences (Culpable Homicide, Murder, Dowry Death, Abatement to Suicide-Kidnapping and Abduction- Rape and Punishment), Property related Offences (Theft, Robbery-Dacoity), Principles of Evidence, Principle of Relevancy; Kinds of Evidence (Oral, Documentary, Circumstantial); Dying Declaration; Expert Opinion and Relevancy, Procedure related to expert evidence in court, Burden of Proof, Competency of Witness; Examination-in-Chief, Cross-Examination, Re-examination, Leading Questions)

10. Scientific Report Writing & Publication Ethics

Writing paper, reports and articles for Journals, Court, Media. Overview of Research Communications. Style and Language of Scientific Communication. Steps in Scientific Writing. Format and Writing a Review Article. Common Mistakes and pitfalls leading to Early Rejection. Maximizing Chances of Publication. Numbers, Date and Abbreviations. Checklist of Information on a Journal. Research, publication and media reporting ethics. Plagiarism checks and related softwares, Publication misconduct, Ethical Committee and its approval, Indexing & Databases.

11. Current Trends and Recent Advancements in the above fields.