कार्यालय, लोक सेवा आयोग,उ0प्र0
संख्या–10 / एस–2 / डी / 2007–08
इलाहाबाद:दिनांक 15 फरवरी 2014

विज्ञप्ति / ऑनलाइन

सर्वसाधारण को सूचित किया जाता है कि उ0प्र0 अधीनस्थ सेवा चयन आयोग, लखनऊ द्वारा विज्ञापन संख्या 4 / 2006–2007 के अन्तर्गत विज्ञापित अर्थ एवं संख्या निरीक्षक / सहायक विकास अधिकारी (सां0) के पदों पर सीधी भर्ती के माध्यम से चयन किये जाने हेतु आवेदन पत्र आमंत्रित किये गये थे । उ0प्र0 अधीनस्थ सेवा चयन आयोग, लखनऊ के भंग हो जाने के पश्चात अब प्रश्नगत पदो के प्रत्युत्तर में प्राप्त आवेदन पत्रों पर सम्यक विचार करते हुए उ0प्र0 लोक सेवा आयोग, इलाहाबाद द्वारा उक्त पदों हेतु "उ0प्र0 लोक सेवा आयोग के माध्यम से सीधी भर्ती (प्रारम्भिक) परीक्षा नियमावली 1986" के नियम–3 में विहित प्राविधानों के अन्तर्गत एक स्क्रीनिंग परीक्षा का आयोजन दिनांक 09 मार्च 2014 को इलाहाबाद के विभिन्न परीक्षा केन्द्रों पर करने का निर्णय लिया गया है । प्रस्तावित परीक्षा वस्तुपरक प्रकृति की होगी तथा विभिन्न विषयों की परीक्षा हेतु निर्धारित प्रश्न एवं पाठ्यक्रम निम्नवत् हैं :–

भाग–अ

सामान्य अध्ययन एवं सामान्य ज्ञान के लिए प्रश्न संख्या 01–32(सभी के लिए अनिवार्य)

भाग–ब

टेक्नीक्स आफ स्टैटिस्टिकल एनालिसिस प्रश्न सं0 33–64 (सभी के लिए अनिवार्य)

भाग–स (वैकल्पिक विषय)

प्रश्न संख्या	65 —— 98	तक कामर्स
	99 —— 132	तक अर्थशास्त्र
	133 —— 166	तक गणित
	167 —— 200	तक स्टेटिस्टिक्स

अभ्यर्थी को भाग "स" में अपने स्नातकोत्तर डिग्री (विषय) के आधार पर विकल्प चुनना होगा । परीक्षा का समय 2 घंटे तथा पूर्णांक 132 होगा । एक अभ्यर्थी को कुल 98 प्रश्न हल करने होंगे ।

विषयवार पाठ्यक्रम संलग्न

(एम0ए0एम0 सिद्दीकी)
उप सचिव ।

GENERAL STUDIES

The paper on General Studies will include questions on the following topics:-

1. General Sciece
2. Current Events of National and International Importance.
3. History of India
4. Indian National Movement
5. Indian Polity and Economy
6. World Geography and Population

Questions on General Science will cover general appreciation and understanding of science, including matters of everyday observation and experience, as may be expected of a well educated person who has not made a special study of any scientific discipline.

In History of India emphasis should be on broad understanding of economic, social, cultural and political aspects of Indian history.

In Indian National Movement, the candidates are expected to have a synoptic view of the nature and character of the Indian freedom movement, growth of nationalism and attainment of independence.

In Indian Polity and Economy questions will test knowledge of the candidates pertaining to Indian Polity including the Indian Constitution, Panchayati Raj and Community Development, broad features of Indian economy and planning.

In World Geography and Population, only general understanding of the subjects will be expected with emphasis on physical/ecological, economic and socio-demographic aspects of Geography of India.

Candidates are expected to have general awareness about the above topics with special reference to Uttar Pradesh.

Part II

Techniques of Statistical Analysis

Statistics: Definition, Scope, Functions, Limitations, Distrust & Misuse.

Collection of Data: Primary Data, Secondary Data; Elementary Idea of Sampling Techniques; Classification, Tabulation & Frequency Distribution; Presentation of Data: Graphical and Diagrammatic.

Measures of Central Tendency: Arithmetic Mean, Geometric Mean, Harmonic Mean, Median & Mode.

Measures of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation, and Coefficient of Variation. Measures of Skewness & Kurtosis.

Index Numbers: Meaning, Importance, Construction and their Calculation, Change of Base, Splicing, Deflating.

Simple Correlation – Linear & Rank, Simple Regression Analysis.

Fundamentals of Mathematics:Elementary Set Theory,Number System,Elementary Algebra,Co-ordinate Geometry: Straight Lines; Rates, Ratios, Percentages & Logarithms.

Permutations & Combinations,Elementary Probability Theory:Additive and Multiplicative Theorems , Conditional Probability.

Indian Statistics: Population, Labour, Money & Banking, National Income, Agricultural Production, and Industrial Production.Indian Statistical System: C.S.O., N.S.S.O.,Bureau of Economics & Statistics, Govt .of U.P.-Structure,Functions

PART- III

COMMERCE

(a) Accounting: Concepts and conventions; Capital and revenue receipts and Expenditure; Distinction between expense and expenditure; Depreciation – Meaning, Features , Rational Method ,Final accounts and financial Statements: Profit and Loss Account , Balance Sheet funds flow statement and cash flow statement ; Budget and Budgets , Ratio analysis , Cost Volume – profit analysis. Valuation of Goodwill and shares

(b) Banking: Central banking functions; credit control; capital adequacy norms; non-performing assets; EXIM Bank.

(c) **Business Organization and Management**: Different forms of business organizations- their distinctive features; Shares and debentures- Kinds and features; Management functions- Planning, organizing, directing, controlling; motivation; communication. Management by objectives, Management by exception; Management of change and crises management.

(d) Management and Cost Audit: Basic elements of Human resource accounting, Social accounting and value added accounting.

(e) Foreign Trade : Import and export trade, Procedures and financing of Import and export trade, export promotion techniques and incentives, EXIM Bank

(f) Insurance: Principle and Practices of Life, Marine and General Insurance, Insurance Business in Global Scenario.

Part III

Economics

1. ***Micro Economics:*** Consumer's Behaviour: Law of Demand & Utility Analysis, Indifference Curve Approach, Revealed Preference Approach, Concept of Elasticity of Demand and Supply; Consumer's Surplus; Production Function and the Laws of Returns; Returns to Scale & Producer's Equilibrium. Cost and Revenue Functions, Pricing under various forms of Market – Perfect, Monopolistic, Monopoly, Oligopoly. Pricing of Factors of Production.

2. ***Macro Economics:*** National Income: Various Concepts, Measurement and Limitations, Methods of National Income Accounting; Determinants of National Income & Employment – Classical and Keynesian Theory of Employment, Macro Theory of Distribution – Classical and Kaldor. Elementary Treatment of General Equilibrium.

3. ***Economic Growth and Development***: Meaning and Measurement ,Sources of Growth: Population, Human Resource Development, Technology and Capital, Productivity. Harrod and Domar Growth Models. Approach to Development: Balanced vs Unbalanced Growth, Big Push Theory, Critical Minimum Effort, Unlimited Supply of Labour.

4. ***Money, Banking and Public Finance***: Concept & Functions of Money, Measures of Money Supply (M_1,M_2 & M_3,), Quantity Theory of Money – Fisher, Cambridge, Keynesian Fundamental Equations. Inflation- Types, Causes & Effects. Central Bank & Commercial Banks - Working, Functions, Credit Control. Classification & Principles of Public Expenditure. Sources, Types & Principles of Public Revenue. Impact and Incidence of Taxation. Public Debt.

5. ***Population Studies***: Theories of Population: Malthus, Optimum, Demographic Transition, Biological, Ecological. Demographic Concepts: Population Pyramid, Density, Sex Ratio, Population Growth Rate. Measures of Fertility & Mortality. Life Table. Populatiop and Economic Development, Migration and Urbanization. Manpower Planning: Concepts & Strategies. Estimation of Manpower Demand & Manpower Supply-Techniques.

6. ***Indian Economy:*** Structure and Trends of National Income, Savings & Investment in India. Economic Planning in India – Strategies, Goals and Achievements. Problems and Features of Indian Agriculture and Industrial Development. Trends in Population Growth. Development of Infrastructure- Problems and Prospects. Liberalization and Globalization of Indian Economy. Recent Changes in Commercial, Monetary, Fiscal and Labour Policy.

PART – III
~~SECTION – C~~

MATHEMATICS

1. Algebra : Sets and equivalence relations, Real and complex numbers, polynomials. Integral, complex roots of a polynomial equation, relation between roots and coefficients, repeated roots, elementary symmetric functions. Elementary theory of groups (excluding cyclic and permuta- tion groups) & fields.

2. Matrices : Addition and multiplications, elementary row and column operations, inverse Of a matrix, rank of a matrix, solutions of systems of linear equations. Determinants.

3. Calculus : (a) Functions of a single variable, Limits, Continuity, properties of continuous Functions in a closed interval, differentiability, Mean value theorems, Taylor's theorem, Maxima, application to curves; tangent, normal properties, Curvature, points of inflexion. Partial differentiation and its applications.

   (b) Summation of series. Tests for convergence of infinite series of positive terms.

4. Differential Equations : First order differential equations. Singular solutions, Geometric Interpretations. Linear differential equations with constant coefficients. Method of variation of parameters, Reduction of order. Euler-Cauchy equation, Legendre and Bessel Equations and their solutions.

5. Geometry : Two dimensional analytical geometry of straight lines and conics referred to Cartesian and polar coordinates. Three dimensional geometry for planes, straight lines, sphere and cones.

6. Mechanics : Vector algebra, dot and cross products of two and three vectors, moment of a force, equilibrium of coplanar forces. Common Catenary. Motion of a particle in a straight line, simple harmonic motion, projectiles and central forces.

7. Linear Algebra : Vector spaces, Subspaces, Examples, Linear Dependence, Basis, Dimen sion, Linear transformation, Kernel and Image, Sum and direct sum of subspaces, Matrix representation of linear maps.

8. Complex Analysis : Complex numbers, Modules and argument. Analytic functions, Cauchy Riemann Equations. Power series, Laurent series, Poles and zeros, isolated singularities, Residue Theorem. Fundamental Theorem of Algebra.

9. Laplace Transforms : Existence, Linearity, Transforms of derivatives and integrals of functions, Derivatives & integrals of transforms convolution. Shifting theorem, Existence of Inverse transforms. Applications to linear differential equations with constant coefficients.

PART-III : STATISTICS

Axiomatic Definition of Probability, σ- field events , Random variable as a Measurable Function , Probability set function, Probability Space , Induced Probability set function ; Absolutely continuous , Continuous and discrete distribution functions.
Convergence: Convergence of Random Variables in Distribution, In Probability and Mean Convergence; Characteristic Function, Properties of Characteristic Function, ~~Khintchin's~~ Khinchin's Theorem , Borel-cantelli Lemma WLLN, SLLN, CLT.

Hypothesis: Simple and composite Hypothesis , NP Lemma ,UMP and UMPU Tests; likelihood ratio test, distribution function having MLR ~~hypothesis~~ properties .

Estimation: MLE, moment estimation, properties of MLE, Rao-Blockwell, Lehman-Scheffe's theorem, C-R- inequality, UMVUE (Uniformly minimum variance unbiased estimator); BLUE , consistency of estimator

Distribution : Distribution function of ~~Chi-square~~ functions of random variables, Gamma, Beta, chi-square t, and F distributions and their relationship.