

***SCHEME & SYLLABUS FOR RECRUITMENT TO THE  
POSTS OF SR. MARKETING ASSISTANTS/JUNIOR  
MARKETING ASSISTANTS AND PRICE REPORTERS IN  
A.P. MARKETING SUBORDINATE SERVICE***

<b><u>PART-A:</u></b> Written (Objective type) Examination			
Paper-1 General Studies	150 Marks	150 Questions	150 Minutes
Paper-2 Subject (1. Agriculture or 2. Economics or 3. Mathematics or 4. Statistics or 5. Commerce)	150 Marks	150 Questions	150 Minutes
<b><u>PART-B:</u></b> Interview (Oral Test)	30 Marks		

## **SYLLABUS**

### **GENERAL STUDIES**

General Science

Current events of National and International importance.

History of India and Indian National movement. India and World Geography.

Indian Polity and Economy.

General mental Ability.

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 particular scientific discipline. In current events, knowledge of significant national and international events will be tested. In History of India, emphasis will be on broad general understanding of the subject in its social, economic and political aspects. Questions on the Indian National Movement will relate to the nature and character of the nineteenth century resurgence, growth of nationalism and attainment of Independence. In Geography, emphasis will be on Geography of India. Questions on the Geography of India will relate to physical, social and economic geography of the country, including the main features of Indian agricultural and natural resources. Questions on Indian Polity and Economy will test knowledge of the country's political system and Constitution of India, Panchayati Raj, Social Systems and economic developments in India. On general mental ability, the candidates will be tested on reasoning and analytical abilities.

### **1. AGRICULTURE**

Agriculture, its importance in National economy. Factors determining agro-ecological zones and geographic distribution of crop plants. Importance of crop plants, cultural practices for cereal, pulses, oilseed, fibre, sugar, tuber and fodder crops and scientific basis for these crop-rotations, multiple and relay cropping, intercropping and mixed cropping.

Soil as medium of plant growth and its composition, mineral and organic constituents of the soil and their role in crop production; chemical, physical and microbiological properties of soils. Essential plant nutrients (macro and micro) their functions, occurrence, cycling in soils. Principles of soil fertility and its evaluation for judicious fertilizer use. Organic manures and bio-fertilizers, inorganic fertilizers, integrated nutrient management.

Principles of plant physiology with reference to plant nutrition, absorption, translocation and metabolism of nutrients.

Diagnosis of nutrient deficiencies and their amelioration photosynthesis and respiration, growth and development, auxins and hormones in plant growth.

Cell and cell organelles. Cell division. Reproductive cycle, Principles of genetics, gene-interaction, sex determination, linkage and re-combination, mutation, extra chromosomal inheritance, polyploidy. Origin and domestication of crop plants. Genetic resources-conservation and utilization. Floralbiology in relation to selfing and crossing.

Genetic basis of plant breeding pureline selection, mass selection, male sterility and incompatibility and their use in plant breeding. Pedigree selection, back-cross method of selection. Heterosis and its exploitation. Development of hybrids, composites and synthetic, important varieties, hybrids, composites and synthetic of major crops. Seeds and seed production techniques.

Important fruit and vegetable crops of India, method of propagation-Sexual and asexual. Package and practices and their scientific basis. Crop rotation, intercropping, companion crops, role of fruits and vegetables in human nutrition, post-harvest handling and processing of fruits and vegetables. Landscaping and ornamental horticulture, commercial floriculture. Medicinal and aromatic plants. Serious pests and diseases affecting major crops. Principles of control of crop pests and diseases, integrated management. Proper use and maintenance of plant protection equipment.

Principles of economics as applied to agriculture. Farm planning and optimum resource-use efficiency and maximizing income and employment. Farm systems and their spatial distribution, their significant roles in regional economic development.

## **2. ECONOMICS**

### **PART-I**

#### **General Economics:**

1. **Micro- Economics:** (a) Production, Agents of Production; Costs and Supply; Isoquants, (b) Consumption and Demand; Elasticity concept, (c) Market Structure and concepts of equilibrium; (d) Determination of prices; (e) Components and Theories of Distribution, (f) Elementary concepts of Welfare economics: Pareto-optimality-Private and social products consumers surplus.

2. **Macro- Economics:** (a) National Income concepts; (b) Determinants of National income employment (c) Determinants of consumption, savings and investment, (d) Rate of Interest and its determination, (e) Interest and Profit.

3. **Money, Banking and Public Finance:** (a) Concepts of Money and measures of money supply; velocity of money, (b) Banks and credit creation; Banks and portfolio management, (c) Central Bank and control over money supply, (d) Determination of the price level, (e) Inflation, its causes and remedies, (f) Public, Finance-Budgets-Taxes and non-tax revenues-Types of Budget deficits.

#### **4. International Economics:**

(1) Theories of International Trade-comparative costs – Hecksher-Ohlin-Gains from Trade-Terms of Trade.

(2) Free Trade and Protection

(3) Balance of payments accounts and adjustment

(4) Exchange rate under the exchange markets

(5) Evolution of the International Monetary System and World Trading order-Gold Standard-the Brettonwoods system.

IMF and the World Bank and their associates.

#### **Floating rates-GATT and WTO:**

5. **Growth and Development:** (1) Meaning and measurement of growth; Growth, distribution and Welfare; (2) Characteristics of under-development; (3) Stages of Development; (4) Sources of growth-capital, Human capital, population, productivity, Trade and aid, non-economic factors; growth Strategies, (5) Planning in a mixed economy-Indicative planning-Planning and growth.

6. **Economic Statistics:** Types of averages-measures of dispersion-correlation-Index numbers; types, uses and limitations.

## **PART-II**

### **Indian Economics:**

1. Main features; Geographic size-Endowment of natural resources, Population; size composition quality and growth trend-Occupational distribution-Effects of British Rule with reference to Drain theory and Laissez Faire policy.

2. Major problems, their dimensions, nature and broad causes; Mass poverty-Unemployment and its types-Economics effects of population pressure-Inequality and types thereof-Low productivity and low per capita income, Rural-urban disparities-Foreign Trade and payments imbalances. Balance of Payments and External Debt-Inflation and parallel economy and its effects-Fiscal deficit.

3. Growth in income and employment since Independence-Rate, Pattern, Sectoral trends-Distributional Changes-Regional disparities.

4. Economic Planning in India: Major controversies on planning in India-Alternative strategies-goals and achievements, shortfalls of different plans-planning and the Market

5. Broad Fiscal, monetary, industrial trade and agricultural policies-objectives, rationale, constraints and effects.

## **3. MATHEMATICS**

1. **Algebra:** Elements of Set Theory; Algebra of Real and Complex numbers including Demovire's between Coefficients and Roots, symmetric functions of roots; Elements of Group Theory; Sub-Group, Cyclic groups, Permutation, Groups and their elementary properties. Rings, Integral Domains and Fields and their elementary properties.

2. Vector Spaces and Matrices: Vector Space, Linear Dependence and Independence. Sub-spaces. Basis and Dimensions, Finite Dimensional Vector Spaces. Linear Transformation of a Finite dimensional vector Space, Matrix Representation. Singular and Nonsingular Transformations. Rank and nullity. **Matrices:** Addition, Multiplication, Determinants of a Matrix, Properties of Determinants of order  $n$ , Inverse of a Matrix, Cramer's rule.

3. **Geometry and Vectors:** Analytic Geometry of straight lines and conics in Cartesian and Polar coordinates; Three Dimensional geometry for planes, straight lines, sphere, cone and cylinder. Addition, Subtraction and Products of Vectors and Simple applications to Geometry.

4. **Calculus:** Functions, Sequences, Series, Limits, Continuity, Derivatives. Application of Derivatives: Rates of change, Tangents, Normals, Maxima, Minima, Rolle's Theorem, Mean value Theorems of Lagrange and Cauchy, Asymptotes, Curvature. Methods of finding indefinite integrals, Definite Integrals, Fundamental Theorem of integrals Calculus. Application of definite integrals to area, Length of a plane curve, Volume and Surfaces of revolution.

5. **Ordinary Differential Equations:** Order and Degree of a Differential Equation, First order differential Equations, Singular solution, Geometrical interpretation, Second order equations with constant coefficients.
6. **Mechanics:** Concepts of particles-Lamina; Rigid body; Displacement; force, Mass; Weight; Motion, Velocity; Speed; Acceleration; Parallelogram of forces; Parallelogram of velocity, acceleration; resultant; equilibrium of coplanar forces; Moments; Couples; Friction; Centre of mass, Gravity; Laws of motion; Motion of a particle in a straight line; simple Harmonic motion; Motion under conservative forces; Motion under gravity; Projectile; Escape velocity; Motion of artificial satellites.
7. **Elements of Computer Programming:** Binary system, Octal and Hexadecimal systems. Conversion to and from Decimal systems. Codes, Bits, Bytes and Words. Memory of a computer, Arithmetic and Logical operations on numbers. Precision. AND, OR, XOR, NOT and Shift/Rotate operators, Algorithms and Flow charts.

#### **04. STATISTICS**

**Probability:** Random experiment, sample space, event, algebra of events, probability on a discrete sample space, basic theorems of probability and simple examples based theorem, conditional, probability of an event, independent events, Bayes's theorem and its application, discrete and continuous random variables and their distributions, expectation, moments, moment generating function, joint distribution of two or more random variables, marginal and conditional distributions, independence of random variables, covariance, correlation, coefficient, distribution of a function of random variables. Bernoulli, binomial, geometric, negative binomial, hypergeometric, poisson, multinomial, uniform, beta, exponential, gamma, cauchy, normal, longnormal and bivariate normal distributions, real-life situations where these distributions provide appropriate models, Chebyshev's inequality, weak law of large numbers and central limit theorem for independent and identically distributed random variables with finite variance and their simple applications.

**Statistical Methods:** Concept of a statistical population and a sample, types of data, presentation and summarization of data, measures of central tendency, dispersion, skewness and kurtosis, measures of association and contingency, correlation, rank correlation, intraclass correlation, correlation ratio, simple and multiple linear regression, multiple and partial correlations (involving three variables only), curve-fitting and principle of least squares, concepts of random sample, parameter and statistic, Z,  $\chi^2$ , t and F statistics and their properties and applications, distributions of sample range and median (for continuous distributions only), censored sampling (concept and illustrations).

**Statistical Inference:** Unbiasedness, consistency, efficiency, sufficiency, completeness, minimum variance unbiased estimation, Rao-Blackwell theorem, Lehmann-Scheffe theorem, Cramer-Rao inequality and minimum variance bound estimator, moments maximum likelihood, least squares and minimum chi-square methods of estimation, properties of maximum likelihood and other estimators, idea of a random interval, confidence intervals for the parameters of standard distributions, shortest confidence intervals, large-sample confidence intervals. Simple and composite hypotheses, two kinds of errors, level of significance, size and power of a test, desirable properties of a good test, most powerful test, Neyman-Pearson lemma and its use in simple example, uniformly most powerful test, likelihood ratio test and its properties and applications. Chi-square test, sign test, Wald-Wolfowitz runs test, run test for randomness, median test, Wilcoxon test and Wilcoxon-Mann-Whitney test.

Wal's sequential probability ratio test, OC and ASN functions, application to binomial and normal distributions.

Loss function, risk function, mini-max and Bayes rules.

**Sampling Theory and Design of Experiments:** Complete enumeration vs. sampling, need for sampling, basic concepts in sampling, designing large-scale sample surveys, sampling and non-sampling errors, simple random sampling, properties of a good estimator, estimation of sample size, stratified random sampling, systematic sampling cluster sampling, ratio and regression methods of estimation under simple and stratified random sampling, double sampling for ratio and regression methods of estimation, two-stage sampling with equal-size first-stage units.

Analysis of variance with equal number of observations per cell in one, two and three-way classifications, analysis of covariance in one and two-way classifications, completely randomized design, randomized block design, latin square design, missing plot technique, 2<sup>n</sup> factorial design, total and partial confounding, 3<sup>2</sup> factorial experiments, split-plot design and balanced incomplete block design.

## **5. COMMERCE**

### **PART-I:**

**Accounting and Auditing:** Nature, Scope and Objectives of Accounting-Accounting as an Information System Users of Accounting Information.

Generally Accepted Principles of Accounting-The Accounting Equation-Accrual Concept-other concepts and conventions, Distinction between capital and revenue expenditure. Accounting Standards and their application-Accounting standards relating to fixed assets, depreciation, inventory, recognition of revenue

Final Accounts of Sole Proprietors, Partnership Firms and Limited Companies-Statutory Provisions-Reserves, Provisions and Funds. Final Accounts of not-for profit organisation. Accounting problems related to admission and retirement of a partner and dissolution of a firm.

Accounting for Shares and Debentures Accounting Treatment of Convertible debentures.

Analysis and Interpretation of Financial Statements Ratio analysis and interpretation. Ratios relation to short term liquidity, long term solvency and profitability-Importance of the rate of return on investment (ROI) in evaluating the overall performance of a business entity-Cash-flow Statement and Statement of Source and Application of Funds-Societal obligations of Accounting.

**Auditing:** Nature, objectives and basic principles of auditing.- Techniques of auditing-physical verification, examination of documents and vouching, direct confirmation, analytical review.

Planning an audit, audit programmes, working papers, audit process.

Evaluation of internal controls.

Test checking and sampling.

Broad outlines of company audit.

Audit of non-corporate enterprises.

Internal and management audit.

### **PART-II:**

**Business Organisation:** Distinctive features of different forms of business organisation.

#### **SOLE PROPRIETOR**

Partnerships-characteristics, Registration, Partnership deed, Rights and duties, Retirement, Dissolution.

Joint Stock Company-Concept, characteristics, types.

Cooperative and State ownership forms of organizations.

Types of securities and methods of their issue.

Economic functions of the capital market, stock exchanges, Mutual Funds. Control and regulation of capital market.

Business combination; control of Monopolies. Problems of modernisation of industrial enterprises. Social responsibility of business. Foreign Trade-Procedure and financing of import and export trade. Incentives for export promotion. Financing of foreign trade.

Insurance-Principles and practice of Life, Fire, Marine and General Insurance.

## **MANAGEMENT**

Management functions-Planning-strategies, Organising-levels of authority Staffing, Line function and staff function, Leadership, Communication, Motivation, Directing-Principles, Strategies.

Coordination-Concept, types, methods.

Control-principles, performance standards, corrective action. Salary and wage administration-job evaluation.

Organisation Structure-Centralization and decentralization-Delegation of authority-span of control-Management by Objectives and management by Exception.

Management of change; Crisis Management. Office Management-scope and principles, systems and routines; handling of records-modern aids of Office management; office equipment and machines; Automation and Personal computers.

Impact of Organisation and Methods (O&M)

**Company Law:** Joint stock companies-incorporation; documents and formalities-Doctrine of indoor management and constructive notice.

Duties and powers of the board of directors of a company.

**Accounts and audit of companies:** Company Secretary-role and functions-qualifications for appointment.

*Sd/ Secretary,*

21/10/2003.