

## **NET - ARS syllabus for Agricultural Economics**

### **Unit 1 : Agricultural Development and Policies**

Role of agriculture in economic development; growth and development, characteristics of developing and developed economies; theories of development; role of economic, technological, social, cultural, political and environmental factors; interdependence between agricultural and industrial development; growth models - Harrod-Domar, neo-classical, Von Neumann; development strategies in India; five-year plans and agriculture. Agricultural growth analysis -determinants of agricultural growth and their measurements; planning models, features of planning in capitalist, socialist, neo-socialist and mixed economies; types of planning - micro level, regional, sectoral, agro-eco regional development; role of non-government organisations (NGOs) and self-help groups (SHGs) in agricultural development; characterizing agricultural growth, changes in cropping pattern, decomposition analysis and sources of output growth; analysis of instability; capital formation, crop livestock insurance, infrastructure; transfer of technology -constraints to technology adoption, yield gap analysis and research planning; agricultural information system. Agricultural policy analysis and reforms - energy, water, fertilizer, land, seed, labour, technology, rural infrastructure, marketing, pricing, trade etc. Concepts of food security, production oriented policies, food price policies, food subsidies, food safety net and food quality. Measurement of poverty, poverty alleviation programmes.

### **Unit 2 : Natural Resource Management**

Characteristics and classification of natural resources; sustainability issues in natural resources; role of economics in natural resource accounting, planning, management and policy formulation; social welfare function; allocation of renewable and non-renewable resources ( forests, water, land, etc.) under various market structures: management strategies for major natural resources; Government programmes for conservation and development of natural resources.

### **Unit 3 : Farm Business Management and Production Economics**

Basic principles of farm management - marginal returns, opportunity cost, cost substitution, equimarginal returns, enterprises combination, time comparison and comparative advantage; cost concepts and analysis; farm efficiency measures; farm financial analysis; farm planning and budgeting; book keeping and accountancy; process of decision making under different knowledge situations; measurement and management of risk and uncertainty in agriculture (including livestock, horticulture, fisheries, forestry, etc.), diversification and insurance in agriculture and allied sectors. Forms and applications of production functions - linear, quadratic, square root, spillman, cubic, semi-log, Cobb-Douglas, constant elasticity of substitution (CES), variable elasticity of substitution (VES), etc; dualities between production, cost and profit functions; derivation of supply and factor demand functions from production and profit functions; optimization of resource allocation; product-product relationships; resource-enterprise organization; resourceuse efficiency and returns to scale; frontier production function; total factor productivity; rainbow (green, white, yellow, blue, etc.) revolution.

#### **Unit 4 : Agricultural Finance**

Importance of agricultural finance; rural credit structure-demand, supply, sources and forms; estimation of credit requirement; cost of credit/capital; credit appraisal- 3 Rs and 3 Cs of credit; reforms in agricultural credit policy; innovations in agricultural financing - microfinance, kisan credit cards; role of institutions in agri-finance - public and private sector banks; cooperatives, micro-finance institutions (MFIs), SHGs; international financial institutions; principles of agricultural financial management; successes and failures of co-operative sector in India; Role of co-operatives under emerging economic scenario; agricultural project analysis; Internal Rate of Return (IRR), Benefit Cost (B-C) ratio analysis.

#### **Unit 5 : Agricultural Marketing and Price Analysis**

Marketing in a developing economy; structure, conduct and performance analysis; marketable and marketed surplus; marketing functions; processing, transportation, storage and warehousing; forward trading, futures market; and commodity, boards; channels in marketing, price spread and efficiency; problems in marketing agricultural produce; government interventions including regulated markets, procurement, buffer stock operations, co-operative marketing etc.; demand and supply models- formulation, estimation and projections; marketed surplus models: marketing of agricultural inputs; market integration; price stabilization measures and policies.

#### **Unit 6: Organizational Behaviour and Human Resource Management**

The agribusiness system; management processes, planning, controlling, organizing, motivating and leading; decision making; managerial skills; level of managers; organizational context of decisions; decision making models; management by objectives; organizational culture; management of organizational conflicts; managing change; leadership styles; group dynamics; motivation. Human resource planning, job analysis and design; recruitment, selection, induction and placement; human resource training and development; management development; performance appraisal and job evaluation; wage and salary administration; promotion, transfer, separation, absenteeism and turnover, employee welfare and safety; morale; personnel supervision; styles; participative management; labour management relations; negotiation and negotiating skills; conflict management.

#### **Unit 7 : Financial Management**

Fundamentals of accounting and book-keeping; objectives and functions of financial management; analysis of financial statements- balance sheet, income statement, cash flow statement; capital structure theories; sources of long term finance and cost of capital; concepts of components of working capital, managing working capital - cash management, dividend decision; capital budgeting, appraisal criteria; agribusiness financing system in India-money

and capital markets, national, regional and global financial institutions; rural insurance; risk management; micro-credit.

### **Unit 8 : Marketing Management**

Indian marketing environment; rural marketing; agricultural marketing system, wholesaling and retailing, consumer behaviour; the buying process; marketing mix; marketing strategy; planning marketing mix; market segmentation; land targeting: marketing organization, marketing information system, market research, marketing extension; rural retailing; international marketing and finance

