

# U.P. HIGHER EDUCATION SERVICES COMMISSION, ALLAHABAD

## AGRICULTURAL ECONOMICS

(Subject Code-88)

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### **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.

### **Unit 2: Agricultural growth analysis**

Determinants of agricultural growth and their measurements; planning models, features of planning in capitalist, socialist, neosocialist 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.

### **Unit 3: 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 4: 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.

### **Unit 5: 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; resource-use efficiency and returns to scale; frontier production function; total factor productivity; rainbow (green, white, yellow, blue, etc.) revolution.

### **Unit 6: Agricultural Finance and Co-operation**

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; co-operatives, micro-finance institutions (MFIs), SHGs; international financial institutions; principles of agricultural financial management; successes and failures of co-operative sector in India; Role of cooperatives under emerging economic scenario; agricultural project analysis; Internal Rate of Return (IRR), Benefit Cost (B-C) ratio analysis.

### **Unit 7: Agricultural Marketing and Price Analysis**

Marketing in a developing economy; structure, conduct and performance analysis; marketable and marketed surplus; marketing functions; processing, transportation, marketing cost, 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 8: 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 9 : 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.

### **Unit10: 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.

### **Unit11:Production and Operations Management**

Operations management of an agro-industrial unit including operations system and processes; productivity of operations; work force productivity; facilities management; operations planning and control; material and supply chain management; quality management.

### **Unit12: Strategic Management**

Strategic management – meaning, concept and scope; framework for strategic management; industrial (external) and organizational (internal) environmental factors influencing strategy; scanning the external and internal environment; strategy formulation; SWOT analysis; strategy implementation; strategy and structure, strategic analysis, strategy and technology, strategy and leadership, total quality management, the customer resource, development of strategy, creating competitive advantage strategy, evaluation of strategy.

### **Unit13:Entrepreneurial Skills and New Venture Planning**

Entrepreneurship and small business concepts; process of business opportunity identification; project feasibility study; detailed business plan preparation; managing small enterprises; planning for growth; sickness in small enterprises; government policies for promotion of small and tiny enterprises; rehabilitation of sick enterprises; entrepreneurship.