

**द्वितीय पत्र (Paper II) :**  
**Technical Subject**

**Section (A) - 30 Marks**

**1. Agricultural and Natural Resource Economics**

**1.1 Basics of Agricultural Economics**

- 1.1.1 Definitions, scope, subject matter and importance of economics and agricultural economics, microeconomics and macroeconomics
- 1.1.2 Socialist, capitalist and mixed economies
- 1.1.3 National income, gross domestic product and tax
- 1.1.4 Circular economy, open and closed economies, two-sector and three sector economies
- 1.1.5 Factors of production, wage, rent, interest and profit
- 1.1.6 Concepts on demand and supply, their determinants, elasticities and measurements
- 1.1.7 Consumer's preference, cardinal and ordinal utilities, indifference curve and law of diminishing marginal utility
- 1.1.8 Price effect: income and substitution effect
- 1.1.9 Cost: concepts, types and relationships, economies of scale
- 1.1.10 Theories of population
- 1.1.11 Overview of Nepalese agriculture and economy: agriculture and national income, prospect and challenges of Nepali agriculture
- 1.1.12 Theory of rent

**1.2 Natural Resource Economics**

- 1.2.1 Concepts, types and dimensions of resources
- 1.2.2 Sustainable use of renewable and non-renewable resources
- 1.2.3 Externalities and valuation of non-tradable goods; concept of payment for ecosystem services (PES)
- 1.2.4 Concepts of environmental economics and green economics (green accounting)
- 1.2.5 Economic development and environment, Sustainable Development Goals (SDG)
- 1.2.6 Land, forest, mineral and water resource of Nepal and major policies for their management
- 1.2.7 Environmental Impact Assessment (EIA) and Initial Environmental Examination (IEE)
- 1.2.8 Welfare economics and Pareto efficiency, public good and market failure
- 1.2.9 Decentralization and role of community for resource conservation
- 1.2.10 Resource degradation, degradation of biodiversity, deforestation and REDD++
- 1.2.11 Climate change : concept, context, effect, adaptation and mitigation

**Section (B) - 40 Marks**

**2. Farm Management, Agricultural Marketing and Agri-business**

**2.1 Farm Management**

- 2.1.1 Farm plan and budgets (total, enterprise and partial budgeting)
- 2.1.2 Types of farm management decisions and principles (absolute/ comparative/ competitive advantage, time comparison, equi-marginal return, factor/output substitution)
- 2.1.3 Farm records and accounts (inventory, income statement, balance sheet, cash flow statement), valuation of farm assets and depreciation
- 2.1.4 Farm efficiency measurement: production, land use, labour and capital use efficiencies
- 2.1.5 Risk and uncertainty management
- 2.1.6 Input and output optimization: rational and irrational zones of production, optimum combination of inputs and outputs, linear programming

**2.2 Agricultural Markets and Marketing**

- 2.2.1 Characteristics of agricultural market and problems of marketing in Nepal
- 2.2.2 Grading, standardization, quality control and related problems of agricultural commodities
- 2.2.3 Marketing of agricultural inputs (fertilizer, seeds, saplings, chemicals) and outputs (cereals, cash crops, fruits and vegetables)
- 2.2.4 Characteristics price determination under different market conditions
- 2.2.5 Marketing channel and efficiency, market for poor (M4P)
- 2.2.6 Price variation (spatial and temporal) and discrimination, market integration
- 2.2.7 Government intervention in agricultural market, cooperative for agricultural marketing
- 2.2.8 Youth entrepreneurship and agri-business incubation
- 2.2.9 Concept of digital markets and opportunities, role of market information system in agricultural marketing
- 2.2.10 Karnali Fruits and Vegetables Market Development Board and Federal Government Regulated Wholesale Markets Management

**2.3 Agri-business and International Trade**

- 2.3.1 Concept, types, features, problems and prospects of agribusiness
- 2.3.2 Agribusiness policies and enabling environment in Nepal
- 2.3.3 Business feasibility analysis: appraising an agribusiness, IDEAS, and SWOT analysis
- 2.3.4 Preparation of agribusiness plan: concepts, importance and elements
- 2.3.5 Agribusiness value chain and market oriented production system and factors affecting it
- 2.3.6 Financial management in agribusiness: financial intermediation, assessment of credit need and role of credit
- 2.3.7 Trade gain, tariff and non-tariff trade barriers and basis of international trade
- 2.3.8 Globalization, privatization, and trade liberalization

2.3.9 Global and regional context of agricultural marketing and trade (WTO, BIMSTEC, SAFTA, Indo-Nepal and Nepal-China trade), Nepal Trade Integration Strategy (NTIS)

2.3.10 Comparative and competitive advantage in international trade

2.3.11 Balance of trade and balance of payment position of Nepal

### **Section (C) - 15 Marks**

**3. Agricultural Program Planning, Monitoring, Evaluation and Data Management**

- 3.1 Concepts of agricultural planning, preparation of programs/projects, budgeting and project cycle
- 3.2 Feasibility studies of agricultural projects; economic and financial appraisal criteria
- 3.3 Risk and uncertainty in financing agriculture projects
- 3.4 Monitoring and evaluation of agricultural programs/ projects
- 3.5 Poverty and food security: measurement and present context
- 3.6 Result based monitoring and evaluation system
- 3.7 Green Resilient Inclusive Development (GRID) model of project development in agriculture
- 3.8 Sustainability of agricultural projects: dimensions, challenges and way forward
- 3.9 Concept of project bank, Ministerial Development Action Committee (MDAC), National Development Action Committee (NDAC)
- 3.10 Existing policies and program of Government of Nepal on support services for agriculture : seed, fertilizer, insurance, minimum support prices and credit

### **Section (D) - 15 Marks**

**4. Statistics and Survey Techniques**

- 4.1 Frequency distribution and measures of central tendency, bar and pie charts
- 4.2 Computation of mean and standard deviation from grouped and ungrouped sets of data
- 4.3 Hypothesis testing and confidence interval
- 4.4 Regression and correlation analysis
- 4.5 Estimate of errors, control of error
- 4.6 Agriculture census: Sample survey and its advantage over census survey
- 4.7 Source of sampling and non-sampling error and measures to minimize such errors
- 4.8 Sample design for collecting current agricultural statistics in Nepal
- 4.9 Rapid Rural Appraisal (RRA) and Participatory Rural Appraisal (PRA) and crop cutting surveys
- 4.10 Use of ICT for data collection and analysis
- 4.11 Trend of area, production and productivity of major agricultural commodities

लोक सेवा आयोग  
नेपाल कृषि सेवा, एगू. इको. एण्ड मार्केटिङ्ग समूह, राजपत्राङ्कित तृतीय श्रेणीका पदको खुला प्रतियोगितात्मक  
परीक्षाको पाठ्यक्रम

प्रथम चरणको लिखित परीक्षाबाट छनौट भएका उम्मेदवारहरुलाई मात्र  
लिइने सामूहिक परीक्षण (Group Test) को लागि

**सामूहिक छलफल (Group Discussion)**

यस प्रयोजनको लागि गरिने परीक्षण १० पूर्णाङ्क र ३० मिनेट अवधिको हुनेछ जुन नेता विहिन सामूहिक छलफल (Leaderless Group Discussion) को रूपमा अवलम्बन गरिने छ। दिइएको प्रश्न वा Topic का विषयमा पालैपालोसँग निर्दिष्ट समय भित्र समूह बीच छलफल गर्दै प्रत्येक उम्मेदवारले व्यक्तिगत प्रस्तुति (Individual Presentation) गर्नु पर्नेछ। यस परीक्षणमा मूल्याङ्कनको लागि देहाय अनुसारको ३ जनाको समिति रहनेछ।

|                         |   |         |
|-------------------------|---|---------|
| आयोगका अध्यक्ष वा सदस्य | - | अध्यक्ष |
| मनोविज्ञ                | - | सदस्य   |
| दक्ष/विज्ञ (१ जना)      | - | सदस्य   |

**सामूहिक छलफलमा दिइने नमुना प्रश्न वा Topic**

उदाहरणको लागि - उर्जा संकट, गरीबी निवारण, स्वास्थ्य बीमा, खाद्य सुरक्षा, प्रतिभा पलायन जस्ता Topics मध्ये कुनै एक Topic मात्र दिइनेछ।