



**जननायक चन्द्रशेखर विश्वविद्यालय, बलिया-277001 (उ.प्र.)**  
**Jananayak Chandrashekhar University, Ballia-277001 (U. P.)**



**JANANAYAK CHANDRASHEKHAR UNIVERSITY**  
**BALLIA- 277001, U.P.**

**COURSE STRUCTURE FOR**  
**M.Sc. (AGRICULTURE)**

**AGRICULTURAL ECONOMICS and STATISTICS**

**UNDER SEMESTER SYSTEM TO COME IN TO FORCE FROM**  
**ACADEMIC SESSION – 2018-19**

**M.Sc. (AGRICULTURE)**

**AGRICULTURAL ECONOMICS & STATISTICS**

# SEMESTER SYSTEM

## M.Sc. (Ag.) AGRICULTURAL ECONOMICS AND STATISTICS

### COURSE STRUCTURE – AT A GLANCE

#### FIRST SEMESTER

**M.M.: 400**

PAPER – 101 MICRO ECONOMIC THEORY AND APPLICATION	75 MARKS
PAPER – 102 ECONOMIC STRUCTURE OF INDIAN AGRICULTURE	75 MARKS
PAPER – 103 STATISTICS FOR AGRICULTURAL ECONOMICS	75 MARKS
PAPER – 104 FARM BUSINESS MANAGEMENT	75 MARKS
PRACTICAL FOR ALL	100 MARKS

#### SECOND SEMESTER

**M.M.: 400**

PAPER – 201 MACRO ECONOMICS AND POLICY	75 MARKS
PAPER – 202 INTERNATIONAL ECONOMICS	75 MARKS
PAPER – 203 RESEARCH METHODOLOGY FOR SOCIAL SCIENCES	75 MARKS
PAPER – 204 AGRICULTURAL MARKETING & PRICE ANALYSIS	75 MARKS
PRACTICAL FOR ALL	100 MARKS

#### THIRD SEMESTER

**M.M.: 400**

PAPER – 301 NATURAL RESOURCE AND ENVIRONMENTAL ECONOMICS	75 MARKS
PAPER – 302 AGRICULTURAL FINANCE	75 MARKS
PAPER – 303 ECONOMETRICS	75 MARKS
PAPER – 304 AGRICULTURAL PRODUCTION ECONOMICS	75 MARKS
PRACTICAL FOR ALL	100 MARKS

#### FOURTH SEMESTER

**M.M.: 400**

PAPER – 401 AGRICULTURAL DEVELOPMENT POLICY	75 MARKS
PAPER – 402 SEMINAR	75 MARKS
PAPER – 403 THESIS WORK FOR RESEARCH	150 MARKS
VIVA-VOCE FOR THESIS WORK FOR RESEARCH	100 MARKS

OR

PAPER – 403-A SPL. PAPER- CO-OPERATIVE MANAGEMENT	75 MARKS
PAPER – 403-B SPL. PAPER- RURAL MARKETING	75 MARKS
PRACTICAL FOR SPECIAL PAPER	100 MARKS

### Consolidate Performa for allotments of all semester:

<b>First Semester</b>	<b>400</b>
<b>Second Semester</b>	<b>400</b>
<b>Third Semester</b>	<b>400</b>
<b>Fourth Semester</b>	<b>400</b>
<b>GRAND TOTAL</b>	<b>1600</b>

## M. Sc. (Ag.) EXAMINATION AGRICULTURAL ECONOMICS REGULATIONS

Semesters/Papers no.	Title of the Papers	Theory		Practical	
		Max. Marks	Mini.Pass Marks	Max. Marks	Mini. Pass Marks
<b>SEMESTER I</b>					
Paper 101	(Theory Paper)	75	25	-	-
Paper 102	(Theory Paper)	75	25	-	-
Paper 103	(Theory Paper)	75	25	-	-
Paper 104	(Theory Paper)	75	25	-	-
<b>Practical</b>	PRACTICAL FOR ALL	-	-	100	33
<b>Total aggregate pass marks of First Semester is 36%</b>		<b>Max. Marks – 400, Min. Marks – 144</b>			
<b>SEMESTER II</b>					
Paper 201	(Theory Paper)	75	25	-	-
Paper 202	(Theory Paper)	75	25	-	-
Paper 203	(Theory Paper)	75	25	-	-
Paper 204	(Theory Paper)	75	25	-	-
<b>Practical</b>	PRACTICAL FOR ALL	-	-	100	33
<b>Total aggregate pass marks of Second Semester is 36%</b>		<b>Max. Marks – 400, Min. Marks – 144</b>			
<b>SEMESTER III</b>					
Paper 301	(Theory Paper)	75	25	-	-
Paper 302	(Theory Paper)	75	25	-	-
Paper 303	(Theory Paper)	75	25	-	-
Paper 304	(Theory Paper)	75	25	-	-
<b>Practical</b>	PRACTICAL FOR ALL	-	-	100	33
<b>Total aggregate pass marks of Third Semester is 36%</b>		<b>Max. Marks – 400, Min. Marks – 144</b>			
<b>SEMESTER IV</b>					
Paper 401	(Theory Paper)	75	25	-	-
Paper 402	SEMINAR	-	-	75	25
Paper 403	THESIS WORK FOR RESEARCH VIVA-VOCE FOR THESIS	150 -	50 -	- 100	- 36
Paper 403-A	SPECIAL PAPER-I	75	25	-	-
Paper 403-B	SPECIAL PAPER-II	75	25	-	-
<b>Practical 403 A&amp;B</b>	PRACTICAL FOR SPECIAL PAPER			-	100 36
<b>Total aggregate pass marks of Fourth Semester is 36%</b>		<b>Max. Marks – 400, Min. Marks – 144</b>			

**Consolidate Performa for allotments of all semester are as follows:-**

First Semester	400	144
Second Semester	400	144
Third Semester	400	144
Fourth Semester	400	144
<b>Grand Total</b>	<b>1600( Max. Marks)</b>	<b>576 ( Min. Marks)</b>

**Note:**

1. The research work may be initiated in any of II or III semester but the thesis shall be submitted at the end of IV semester.
2. The evaluation of seminar presentation shall be done by the departmental committees.
3. Paper setting and evaluation is done 50% internal and 50% external examiner.

# **COURSE CONTENTS – DETAILED SYLLABUS**

## **M.Sc. (AG.) AGRICULTURAL ECONOMICS AND STATISTICS**

### **FIRST SEMESTER**

#### **PAPER – 101 MICRO ECONOMIC THEORY AND APPLICATIONS MM:75**

##### **UNIT- I-**

Theory of Consumer Behavior - Cardinal Utility Approach - Ordinal Utility Approach – Income effect and substitution effect – Applications of Indifference curve approach - Revealed Preference Hypothesis – Consumer surplus - Derivation of Demand curve - Elasticity of demand.

##### **UNIT- II-**

Theory of Production - Production functions – Returns to scale and economies of scale – Technical progress – Theory of Costs – Cost curves– Profit maximization and cost minimization – Derivation of supply curve – Law of Supply – Producers surplus.

##### **UNIT- III-**

Market Equilibrium - Behavior of Firms in Competitive Markets – Perfect Competition - Effect of Taxation and Subsidies on market equilibrium - Monopoly- Monopolistic - Oligopoly- Theory of Factor Markets.

##### **UNIT- IV-**

General Equilibrium Theory - Welfare Economics - Pareto Optimality – Social welfare criteria - Social Welfare functions.

##### **Suggested Readings**

David M Kreps 1990. *A Course in Microeconomic Theory*. Princeton University Press.

Dewitt KK. 2002. *Modern Economic Theory*. Sultan Chand & Co.

Henderson JM & Quandt RE. 2000. *Microeconomic Theory: A Mathematical Approach*. McGraw-Hill.

Koutsoyiannis A. 2003. *Modern Microeconomics*. The Macmillan Press.

Silberberg E & Suen W. 2001. *The Structure of Economics – A Mathematical Analysis*. McGraw-Hill.

Varian Hal R. 1999. *Intermediate Microeconomics*. Affiliated East-West Press.

#### **PAPER – 102 ECONOMIC STRUCTURE OF INDIAN AGRICULTURE MM:75**

##### **UNIT- I-**

Land- Meaning, Concept & Structure of land holding in India, Land tenures and land reforms, Land reforms policy, Causes for slow progress of land reforms & suggestions for the success of land reforms.

##### **UNIT- II-**

Labour- Man-power planning and strategy for agriculture, Unemployment and underemployment in Indian agriculture, Causes & Suggestions of unemployment, agricultural wages and method of wages payment.

### **UNIT- III-**

Capital- Role of capital in agricultural product, Nature and extent of credit needs of the farmers, Agricultural credit agencies and their efficiencies, Problems of agricultural credit.

### **UNIT- IV-**

Organization- Meanings of large and small scale farming, Advantages and disadvantages large and small scale farming, Types and Systems of farming.

#### **Suggested Readings**

Ghatak S & Ingersent K. 1984. *Agriculture and Economic Development*. Select Book Service Syndicate, New Delhi

Gupta PK 2009. *Agricultural Economics*. Vrinda Publication.

Agrawal NL 1977. *Economy of Indian Agriculture*. Rajasthan Granth Academy, Jaipur

Acharya GP 2010. *Introduction of Agricultural Resource Economics*. Rama Publishing House

## **PAPER-103 STATISTICS FOR AGRICULTURAL ECONOMICS MM:75**

### **UNIT- I-**

Classification, tabulation and graphical representation of data. Box-plot, Descriptive statistics. Exploratory data analysis, measures of central tendency, measures of dispersion, correlation & regression analysis, Theory of probability, random variable, mathematical expectation.

### **UNIT- II-**

Discrete and continuous probability distributions: Binomial, Poisson, Normal distribution, Concept of sampling distribution, Test of significance: chi-square,  $T$ ,  $F$ , and  $Z$  tests.

### **UNIT- III-**

Determinants, Matrix algebra: matrix addition, subtraction, and multiplication, some special types of matrices and inverse of matrix, concept of limits and differentiation, some common laws of differentiation, Differentiation of Power and exponential function.

### **UNIT –IV-**

Time series construction and use of Index Number, Interpolation and Extrapolation, Theory of sampling, Random and Stratified sampling.

#### **Suggested Readings**

Anderson TW. 1958. *An Introduction to Multivariate Statistical Analysis*. John Wiley.

Dillon WR & Goldstein M. 1984. *Multivariate Analysis - Methods and 15 Applications*. John Wiley.

Goon AM, Gupta MK & Dasgupta B. 1977. *An Outline of Statistical Theory*. Vol.I. The World Press.

Goon AM, Gupta MK & Dasgupta B. 1983. *Fundamentals of Statistics*. Vol.I. The World Press.

Hoel PG. 1971. *Introduction to Mathematical Statistics*. John Wiley.

## **PAPER – 104 FARM BUSINESS MANAGEMENT**

**MM:75**

### **UNIT- I-**

Concept and definition of farm business management, Scope and role of farm management in Indian agriculture, Nature and characteristics of Indian farming.

#### **UNIT- II-**

Basic principles of farm business management- Principle of comparative advantages, Law of diminishing return, Enterprises combination, Time combination, Equal-marginal return, Substitution, Cost principles.

#### **UNIT- III-**

Decision making in Agriculture – Frame work of decision making, Process of decision making, decision making under risk and uncertainty, Decision theory and their application.

#### **UNIT- IV-**

Farm planning- its importance and method, Farm planning in India, Complete and partial budgeting, Steps in making farm budget, Farm efficiency and its measures, Farm financial analysis, Measures of farm business and their efficiency.

#### **Suggested Readings**

Sankayan PL. 1983. *Introduction to Farm Management*. Tata McGraw Hill  
Heady EO & Jensen H. 1960. *Farm Management Economics*. Prentice Hall.  
Johl SS & Kapoor TR. 1973. *Fundamentals of Farm Business Management*. Kalyani Publ.  
Kahlon AS & Singh K. 1992. *Economics of Farm Management in India*. Allied Publ.  
Panda SC. 2007. *Farm Management & Agricultural Marketing*. Kalyani Publ

### **PRACTICAL**

**MM:100**

## **SECOND SEMESTER**

### **PAPER – 201MACRO ECONOMICS AND POLICY MM:75**

#### **UNIT- I-**

Nature and Scope of Macro Economics - Methodology and Keynesian Concepts  
National Income - Concepts and measurement- Classical theory of Employment and Say's Law-

Modern theory of Employment and Effective Demand.

#### **UNIT- II-**

Consumption function- Investment and savings - Concept of Multiplier and Accelerator - Output and Employment - Rate of interest - Classical, Neo classical and Keynesian version- Classical theory Vs Keynesian theory – Unemployment and Full employment.

#### **UNIT- III-**

Money and classical theories of Money and Price - Keynesian theory of money and Friedman Restatement theory of money - Supply of Money-Demand for Money - Inflation:Nature, Effects and control.

#### **UNIT- IV-**

IS & LM frame work - General Equilibrium of product and money markets Monetary policy – Fiscal policy- Effectiveness of Monetary and Fiscal policy – Central banking.

#### **Suggested Readings**

Ahuja HL. 2007. *Macroeconomics: Theory and Policy*. S. Chand & Co.  
Eugene A Diulio 2006. *Macroeconomics*. 4th Ed. Schaums' Outlines.  
Gardner Ackley 1987. *Macro Economic: Theory and Policy*. Collier Macmillan.  
Dornbusch. 2006. *Macroeconomics*. McGraw Hill Publication

### **PAPER – 202 INTERNATIONAL ECONOMICS**

**MM:75**

#### **UNIT- I-**

Meaning, Definition, Nature and Scope of International Economics, Internal and International Trade and their pattern, Gains from International Trade, Distinguishing of International and Inter-regional Trade.

#### **UNIT-II-**

Theory of International Trade- Classical theory of International Trade (Adam Smith, Ricardian), Neo Classical (Heberler, Opportunity cost Theory) and Modern theory of international trade (Heckscher-Ohlin),

#### **UNIT-III-**

Commercial Policy- Tariff, Impact of Tariff and Quota, Terms of Trade and Gains of Trade, Producer Subsidy and Export Subsidy, Balance of Payment- Meaning, Features and Structure of Recent International Trade.

#### **UNIT- IV-**

IMF, IBRD, IDA, IFC, ADB, International Trade Agreements –GATT –Uruguay Round — World Trade Organisation.

#### **Suggested Readings**

Apple Yard DR & Field AJ Jr. 1995. *International Economics - Trade, Theory and Policy*. Irwin, Chicago.  
Cherunilam F. 1998. *International Economics*. Tata McGraw Hill.  
Krugman PR & Obstfeld M. 2000. *International Economics – Theory and Policy*. Addison-Wesley

### **PAPER-203 RESEARCH METHODOLOGY FOR SOCIAL SCIENCES MM:75**

#### **UNIT- I-**

Importance and scope of research in agricultural economics. Types of research Fundamental vs Applied. Concept of researchable problem – research prioritization selection of research problem. Approach to research – research process.

#### **UNIT- II-**

Hypothesis – meaning - characteristics - types of hypothesis – review of literature setting of Course Objective and hypotheses - testing of hypothesis.

#### **UNIT- III-**

Sampling theory and sampling design – sampling error - methods of sampling probability and non – probability sampling methods - criteria to choose. Project proposals – contents and scope.

#### **UNIT- IV-**

Data collection – assessment of data needs – sources of data collection – Mailed questionnaire and interview schedule – Scaling Techniques Interviewing techniques and field problems - methods of conducting survey – Coding, editing – tabulation – validation of data. Tools of analysis – data processing. Interpretation of results Preparing research report / thesis – Universal procedures for preparation of bibliography – writing of research articles.

#### **Suggested Readings**

- Creswell JW. 1999. *Research Design - Qualitative and Quantitative Approaches*. SAGE Publ.  
Dhondyal SP. 1997. *Research Methodology in Social Sciences and Essentials of Thesis Writing*. Amman Publ. House  
Kothari CR. 2004. *Research Methodology - Methods and Techniques*. WishwaPrakashan, Chennai.  
Rao KV. 1993. *Research Methodology in Commerce and Management*. Sterling Publ., New Delhi.  
Singh AK. 1993. *Tests, Measurements and Research Methods in Behavioural Sciences*. Tata McGraw-Hill.  
Venkatasubramanian V. 1999. *Introduction to Research Methodology in Agricultural and Biological Sciences*. SAGE Pub

### **PAPER -204 AGRICULTURAL MARKETING AND PRICE ANALYSIS MM:75**

#### **UNIT- I-**

Review of Concepts in Agricultural Marketing - Characteristic of Agricultural product and Production – Problems in Agricultural Marketing from Demand and Supply and Institutions sides. Market intermediaries and their role, Marketable & Marketed surplus estimation. Marketing Efficiency.

#### **UNIT- II-**

Marketing Co-operatives – APMC Regulated Markets - Direct marketing, Contract farming and Retailing - Supply Chain Management - State trading, Warehousing and other Government agencies – Performance and Strategies.

#### **UNIT- III-**

Role of Information Technology and telecommunication in marketing of agricultural commodities – Market research - Market information service – electronic auctions (e-bay).

#### **UNIT- IV-**

Theory of storage – Introduction to Commodities markets and future trading – Basics of commodity futures – Operation Mechanism of Commodity markets – Price discovery - Role of Government in promoting commodity trading and regulatory measures.



### **Suggested Readings**

Purecell WD & Koontz SR. 1999. *Agricultural Futures and Options: Principles and Strategies*. 2nd Ed. Prentice-Hall.  
Rhodes VJ. 1978. *The Agricultural Marketing System*. Grid Publ., Ohio.  
Shepherd SG & Gene AF. 1982. *Marketing Farm Products*. Iowa State Univ. Press.  
Singhal AK. 1986. *Agricultural Marketing in India*. Annual Publ., New Delhi.

## **PRACTICAL**

**MM:100**

## **THIRD SEMESTER**

### **PAPER – 301 NATURAL RESOURCE AND ENVIRONMENTAL ECONOMICS      MM:75**

#### **UNIT- I-**

Concepts, Classification and Problems of Natural Resource Economics – Economy of Environment interaction – The Material Balance principle, Entropy law- Resources Scarcity- Limits to Growth - Measuring of natural resource scarcity – Malthusian and Recardian scarcity , Resource Scarcity and Technical Change.

#### **UNIT- II-**

Theory of optimal extraction non renewable resources –economic models of oil extraction efficiency- time path of prices and extraction - Hotelling's rule, Solow-Hartwick's Rule. Theory of optimal extraction exhaustible resources.

#### **UNIT- III-**

Efficiency and markets – market failures, types of property rights –transaction costs- public goods , common property and open access resource management - Collective action.

#### **UNIT –IV-**

Environmental regulation – economic instruments - pollution charges – Pigovian tax tradable permits – indirect instruments - environmental legislations in India.

### **Suggested Readings**

Baland J-M & Platteau JP. 1996. *Halting Degradation of Natural Resources: Is There a Role for Rural Communities?* Clarendon Press and FAO.  
Carlson GA, Miranowski J & Zilberman D. 1998. *Agricultural and Environmental Resource Economics*. Oxford Univ. Press.  
Chiang AC. 1992. *Elements of Dynamic Optimization*. Waveland Press.  
Conrad JM & Clark CW. 1997. *Natural Resource Economics: Notes and Problems*. Cambridge Univ. Press.  
Conrad JM. 1999. *Resource Economics*. Cambridge University Press.  
Fisher AC. 1981. *Resource and Environmental Economics*. Cambridge Univ. Press.  
Prato T. 1998. *Natural Resource and Environmental Economics*. Iowa State Univ. Press

## **PAPER – 302 AGRICULTURAL FINANCE**

**MM:75**

### **UNIT- I-**

Meaning of agricultural finance, Importance and feature of agricultural finance, problems & suggestions of agricultural finance.

### **UNIT-II-**

Finance sources- Sources of agricultural credit, Money lender, Co-operative societies, Co-operative agricultural & rural development banks, Regional rural banks, Commercial banks, Kissan credit card, NABARD, RBI,

### **UNIT-I-**

Rural Indebtedness- Causes, effects and suggestions, Finance analysis- Three 'R's (Return, Re-payment and Risk-bearing), Four 'C's (Characters, Capacity, Capital and Conditions), Five 'P's (Purpose, Person, Productivity planning, Payment of installments and Protection security).

### **UNIT-IV-**

Taxation- Meaning, characteristics, objectives and Principles of agricultural taxation in India, Tax burden on agriculture, i. e; land revenue, irrigation, wealth & agricultural income tax, Goods and Service Tax (GST).

### **Suggested Readings**

- Dhubashi PR. 1986. *Policy and Performance - Agricultural and Rural Development in Post Independent India*. Sage Publ.  
Gittinger JP 1982. *Economic Analysis of Agricultural Projects*. The Johns Hopkins Univ. Press.  
Gupta SC. 1987. *Development Banking for Rural Development*. Deep & Deep Publ.  
Muniraj R. 1987. *Farm Finance for Development*. Oxford & IBH Publ.  
Little IMD & Mirlees JA. 1974. *Project Appraisal and Planning for Developing Countries*. Oxford & IBH Publ.

## **PAPER – 303 ECONOMETRICS**

**MM:75**

### **UNIT- I-**

Introduction–relationship between economic theory, mathematical economics, models and econometrics, methodology of econometrics-regression analysis.

### **UNIT -II-**

Basic two variable regression - assumptions estimation and interpretation approaches to estimation - OLS, MLE and their properties – extensions to multi variable models-multiple regression estimation and interpretation.

### **UNIT- III-**

Violation of assumptions – identification, consequences and remedies for Multi-co linearity, heteroscedasticity, autocorrelation – data problems and remedial approaches – model misspecification.

### **UNIT- IV-**

Use of dummy variables-limited dependent variables – specification, estimation and Interpretation.

### **Suggested Readings**

Gujarati DN. 2003. *Basic Econometrics*. McGraw Hill.

Johnson AG Jr., Johnson MB & Buse RC. 1990. *Econometrics - Basic and Applied*. MacMillan.

Kelejan HH & Oates WE. 1994. *Introduction to Econometrics Principles and Applications*. Harper and Row Publ.

Koutsoyianis A. 1997. *Theory of Econometrics*. Barner & Noble.

Maddala GS. 1992. *Introduction to Econometrics*. MacMillan.

Maddala GS. 1997. *Econometrics*. McGraw Hill.

Pindyck RS & Rubinfeld DL. 1990. *Econometrics Models and Econometric Forecasts*. McGraw Hill.

## **PAPER – 304 AGRICULTURAL PRODUCTION ECONOMIC**

**MM:75**

### **UNIT- I-**

Nature, scope and significance of agricultural production economics, Agricultural Production economics, Agriculture economics process character and dimension -spatial , temporal - Centrality of production function assumption of production function, Commonly used production functions.

### **UNIT- II-**

The Production Relationship- Factor-product relationship, Three stages of production TP, MP, AP and their relationship, Elasticity of production. Product-Product relationship, product substitution and optimum combination of enterprises. Factor-Factor relationship – resources substitution and least-cost combination, Iso-quant, Ridge line, scale to return, expansion path.

### **UNIT-III-**

Linear Programming- Assumption of linear programming model, Essential of linear programming, Concept of linear programming, Basic graphic and simplex solution of linear programming.

### **UNIT-IV-**

Technology in agricultural production, nature and effects and measurement – Measuring efficiency in agricultural production; technical, a locative and economic efficiencies– Yield gap analysis-concepts.

### **Suggested Readings**

Beattie BR & Taylor CR. 1985. *The Economics of Production*. John Wiley & Sons.

Doll JP & Frank O. 1978. *Production Economics - Theory and Applications*. John Wiley & Sons.

Gardner BL & Raussier GC. 2001. *Handbook of Agricultural Economics*. Vol. I. *Agricultural Production*. Elsevier.

Heady EO. *Economics of Agricultural Production and Resource Use*. Prentice- Hall.

Sankayan PL. 1983. *Introduction to Farm Management*. Tata McGraw Hill

## **PRACTICAL**

**MM:100**

## **FOURTH SEMESTER**

### **PAPER – 401 AGRICULTURAL DEVELOPMENT POLICY**

**MM:75**

#### **UNIT -I-**

Development Economics – Scope and Importance - Economic development and economic growth - divergence in concept and approach - Indicators and Measurement of Economic Development – GNP as a measure of economic growth – New Measures of Welfare– Economic and Non-Economic factors of economic growth.

#### **UNIT -II-**

Role of agriculture in economic / rural development – theories of agricultural development– Population and food supply - need for sound agricultural policies – resource policies – credit policies – input and product marketing policies – price policies.

#### **UNIT -III-**

Development issues, poverty, inequality, unemployment and environmental degradation –Models of Agricultural Development – Induced Innovation Model - policy options for sustainable agricultural development.

#### **UNIT -IV-**

Globalization and the relevance of development policy analysis – The dilemma of free trade? – Free trade versus Protectionism- Arguments for protection. Arguments against protection. Role of protection in Developing Countries. WTO – Agreement on Agriculture -Contradictions of free trade - proponents and opponents policies in vulnerable sectors like agriculture.

#### **Suggested Readings**

- Chenery H & Srinivasan TN. (Eds.). 1988. *Hand book of Development Economics*. North-Holland.  
Eicher KC & Staatz JM. 1998. *International Agricultural Development*. Johns Hopkins Univ. Press.  
Frank E. 1992. *Agricultural Policies in Developing Countries*. Cambridge Univ. Press.  
Ghatak S & Ingersent K. 1984. *Agriculture and Economic Development*. Select Book Service Syndicate.  
Kindleberger PC. 1977. *Economic Development*. McGraw Hill.  
Meier MG & Stiglitz JE. 2001. *Frontiers of Development Economics- the Future Perspective*. Oxford Univ. Press.

### **PAPER – 402 SEMINAR**

**MM:75**

### **PAPER -403 THESISWORK FOR RESEARCH**

**MM:150**

### **VIVA-VOCE FOR THESIS WOK FOR RESEARCH**

**MM:100**

### **THESIS WORK FOR RESEARCH**

## **Suggested Broad Topics for Research Work**

- Economics of Irrigation water in different agro-climatic conditions
- Potential of exports of agri-products
- Potential domestic as well as international markets for value added agri-products
- Demand & supply gap of different agri-products and agri-inputs
- Economic analysis of new agri-technologies
- Input use efficiency in different agro-climatic conditions
- Income and expenditure pattern in rural areas
- Saving and investment pattern in rural areas
- Return from investment in agriculture research
- Marketing of agri-products in WTO regime
- Impact of WTO on agricultural economy
- Impact of Agricultural credit on socio-economic condition of the farmers
- Optimization of production process to reduce the cost of production
- Processing and value addition in agriculture sector
- Emerging international marketing scenario of agri-products
- Extent of farmers' indebtedness in different agro-climatic conditions

**OR**

## **SPECIAL PAPERS (PAPER 403 A & B)**

### **PAPER – 403-A SPECIAL PAPER- CO-OPERATIVE MANAGEMENT MM:75**

#### **UNIT -I-**

Co-operation- meaning and concept, principles of co-operation, economic planning and co-operation, role of co-operative in agricultural development,

#### **UNIT -II-**

Agricultural Co-operatives- Credit co-operatives: Primary, Central/District, Apex/state, Cooperative Agricultural and Rural Development Bank.

#### **UNIT -III-**

Marketing co-operatives, Processing co-operatives, Service co-operatives, Co-operative farming, co-operative dairies.

#### **UNIT -IV-**

Co-operative management- Definition, Essential elements of management, Weakness & Suggestions of co-operative management in India, co-operative supervision, inspection and auditing.

#### **Suggested Readings**

Akmat JS. 1978. *New Dimensions of Cooperative Management*. Himalaya Publ. House.

Ansari AA. 1990. *Cooperative Management Patterns*. Anmol Publ.

Sah AK. 1984. *Professional Management for the Cooperatives*. Vikas Publ. House.

### **PAPER – 403-B SPECIAL PAPER-RURAL MARKETING MM:75**

#### **UNIT- I -**

Concept and scope of rural marketing, nature and characteristics of rural markets, potential of rural markets in India.

#### **UNIT- II-**

Environmental factors - socio-cultural, economic and other environmental factors affecting rural marketing.

#### **UNIT-III-**

Rural consumer's behavior - behavior of rural consumers and farmers; buyer characteristics and buying behavior; Rural v/s urban markets.

#### **UNIT-IV-**

Product promotion - Media planning, planning of distribution channels, and organizing personal selling in rural market in India.

#### **Suggested Readings**

Krishnamacharyulu C & Ramakrishan L. 2002. *Rural Marketing*. Pearson Edu.

Singh AK & Pandey S. 2005. *Rural Marketing*. New Age.

Singh Sukhpal. 2004. *Rural Marketing*. Vikas Publ. House.

Kotler P. 2002. *Marketing Management – Analysis, Planning, Implementation and Control*. Pearson Edu.

Rhodes VJ. 1978. *The Agricultural Marketing System*. Grid Publ., Ohio.

### **PRACTICAL FOR SPECIAL PAPER (403- A & B)**

**MM:100**

## **AGRICULTURAL ECONOMICS**

### **List of Journals**

- *Agricultural Economics Research Review*
- *Agricultural Finance Review*
- *Agricultural Marketing*
- *Agricultural Situation in India*
- *Agriculture and Agro-industries Journal*
- *Agriculture Statistics at a Glance*
- *APEDA Trade years book*
- *Asian Economic and Social Review (Old Series)*
- *Bulletin of Agricultural Prices*
- *Economic and Political Weekly*
- *Economic Survey of Asia and Far East*
- *FAO Commodity Review and Outlook*
- *FAO Production Year book*
- *FAO Trade year book*
- *Indian Cooperative Review*
- *Indian Economic Journal*
- *Indian Journal of Agricultural Economics*
- *Indian Journal of Agricultural Marketing*
- *Indian Journal of Economics*
- *International Food Policy Research Institute Research Report*
- *Journal of Agricultural Development and Policy*
- *Journal of Agricultural Economics*
- *Journal of Agricultural Economics and Development*
- *Journal of Farm Economics*
- *Land Economics*
- *Productivity*

- *Reserve Bank of India Bulletin*
- *Rural Economics and Management*
- *World Agricultural Economics and Rural Sociology Abstracts*
- *World Agricultural Production and Trade: Statistical Report*
- *Yojana*

### **e- Resources**

- [www.pearsoned.com](http://www.pearsoned.com) (Pearson Education Publication)
  - [www.mcgraw-hill.com](http://www.mcgraw-hill.com) (McGraw-Hill Publishing Company)
  - [www.oup.com](http://www.oup.com) (Oxford University Press)
  - [www.emeraldinsight.com](http://www.emeraldinsight.com) (Emerald Group Publishing)
  - [www.sagepub.com](http://www.sagepub.com) (Sage publications)
  - [www.isaeindia.org](http://www.isaeindia.org) (Indian Society of Agricultural Economics)
  - [www.macmillanindia.com](http://www.macmillanindia.com) (Macmillan Publishing)
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