ANNAMALAI UNIVERSITY

M.A. ECONOMICS

SYLLABUS

UNDER CBCS

(2021-2022)

The Course of Study and the Scheme of Examination

	Study Components		ins. hrs / week	Credit	Title of the Paper	Maximum Marks		
	Course Title					CIA	Uni. Exam	Total
	SEMESTER I							
1	Core	Paper 1	6	4	Microeconomics – I	25	75	100
2	Core	Paper 2	6	4	Macroeconomics – I	25	75	100
3	Core	Paper 3	6	4	Statistics for Economics – I	25	75	100
4	Core	Paper 4	6	4	Indian Economic Development	25	75	100
	Internal Elective for same major students (Choose any one)							
5	Core Elective	Paper-1	3	3	A. Agricultural Economics B. Labour Economics C. Monetary Economics	25	75	100
	External Elective for other major students (Inter/multi-disciplinary papers)							
6	Open Elective	Paper-1	3	3	(To choose one out of 3) A. Basic Economics B. Recent Issues in IndianEconomy - I C. An Introduction to Environmental Economics	25	75	100
			30	22		150	450	600
	SEMESTER II					CIA	Uni. Exam	Total
7	Core	Paper 5	6	4	Microeconomics – II	25	75	100
8	Core	Paper 6	6	4	Macroeconomics – II	25	75	100
9	Core	Paper 7	6	4	Statistics for Economics – II	25	75	100
	Internal Elective for same major students (Choose any one)							
10	Core Elective	Paper-2	5	3	A. Economics of Social Issues B. Statistical Software C. Mathematical Economics	25	75	100

					External Elective for other major students (Inter/multi-disciplinary papers)			
11	Open Elective	Paper-2	5	3	(To choose one out of 3) A. Marketing Management B. Recent Issues in IndianEconomy - II C. Agricultural Economy of India	25	75	100
12	*Field Study		-	2		100	-	100
13	Compulsory Paper		2	2	Human Rights & Duties	25	75	100
			30	22		250	450	700

* Field Study: There will be field study which is compulsory in the first semester of all PG courses with 2 credits. This field study should be related to the subject concerned with social impact. Field and Topic should be registered by the students in the first semester of their study along with the name of a mentor before the end of the month of August. The report with problem identification and proposed solution should be written in not less than 25 pages in a standard format and it should be submitted at the end of second semester. The period for undergoing the field study is 30 hours beyond the instructional hours of the respective programme. Students shall consult their mentors within campus and experts outside the campus for selecting the field and topic of the field study. The following members may be nominated for confirming the topic and evaluating the field study report.

        (i). Head of the respective department

        (ii). Mentor

        (iii). One faculty from Other department

PROGRAMME EDUCATIONAL OBJECTIVES (PEO)

PEO 1: Creating strong subject knowledge in Economics to develop and to uplift the society.

PEO 2: Applying Economic theories and make the students to understand the practical knowledge on present Economic system

PEO 3: To expand the scope of economic rational in every walk of life.

PEO 4: Emphasizing to synergize individual economic aspirations with the larger national economic aspirations

PEO 5: Creation of continuous improvement in their professional career through life long learning appreciating human values and ethics.

PROGRAMME OUTCOMES (PO) FOR POST GRADUATE DEGREE IN ECONOMICS

PO 1: Students are expected to be able to apply economic analysis to everyday problems in real world situations.

PO 2: Students are expected to understand how to use empirical evidence to evaluate the validity of an economic argument, use statistical methodology, interpret statistical results and conduct appropriate statistical analysis of data.

PO 3: Creation of knowledge in fundamentals of Economics, application of Economics with the help of Mathematics, Statistics and Computer Applications is a strong foundation for PG Students.

PO 4: Decision making and evaluate the solutions for useful complex economic issues and train the students to meet the specified needs to resolve complex economic issues.

PO 5: Train the students in Industrial, Agricultural and Service sector economics. This will be helpful for them to get into the concern sector for their Job Oriented goals.

PO 6: Create knowledge and select the issues to adopt the techniques to understand resource allocation and Macro Economic policies in Indian Economy.

PO 7: By way of getting complete knowledge in Economics may helpful for them to commit for the professional Ethics and responsibilities taken by them in their professional Career.

PO 8: Students of post graduate in Economics are practiced for Basic knowledge in Economics, Mathematics, Statistics and Accountancy. This type of getting knowledge may helpful to students to clear any kind of basic Competitive Examinations.

PO 9: Knowledge in Economics and creation of domain knowledge will be effectively served to the students to understand the Society, Societal complex problems and for the attainment of Comprehensive solutions.

PO 10: To impart value based and job-oriented education, which ensures that the students are trained into up-to-date.

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SYLLABUS

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(2021-2022)

SEMESTER-I

PAPER - 1

MICROECONOMICS I

Course Objectives

1. To teach the students the basic theoretical foundation of microeconomic.

2. The concepts, theories and diagrammatical representations use the most important theoretical tools that aid the student to understand the subject.

3. To teach students to analyze how individual decision makers both consumers and producers behave in a variety of economic environments.

4. The subject helps the students to focus on the different types of market structure.

5. The subject develops skills of application of microeconomic principles to take decision in real life situations, to generate a better economic life for themselves and their neighbors.

Unit-1: Theory of Consumer behavior and Demand
Utility and Preference Ordering - Demand and Supply Equilibrium - Price, Income and Cross Elasticity of Demand - Derivation of Demand curves - Hicks and Marshall- Revealed Preference Theory – Consumer surplus – Indifference curves Analysis.

Unit-2: Hicksian Analysis
Income and Substitution Effects - Slutsky Theorem - Revision of Demand theory by Hicks – Cobweb Theorem.

Unit-3: Laws of Production and Costs
Production Functions - Least cost combination and Producers Equilibrium – Law of variable proportions Cobb – Douglas and CES Production Function - Law of Returns and Returns to Scale - Cost- Output relationship - Short – run and long – run – optimum cost - Modern theory of Costs.

Unit-4: Market Structure I
Perfect competition – Short run and long run equilibrium of the firm and industry – Price and output determination – Optimum firm. - Monopoly – Short run and long run equilibrium - Price discrimination, monopoly control, and regulation – Contestable Market. - Monopolistic competition–Chamberlin Model- Selling costs - Excess capacity.

Unit-5: Market Structure II
Oligopoly – Non-collusive Models – Cournot- Bertrand – Chamberlin – Edgeworth – Sweezy - Stackelberg - Oligopoly - Collusive Models - Cartels and mergers - Price leadership - Base point price system - Monopsony – Price and output determination – Workable competition.

Text Books

Unit- 1: Koutosoyiannis.A. (1979), Modern Microeconomics, Macmillan Press - London.

Unit- 2: N. Gregory Mankiw. (2012), Principles of Microeconomics, 7th Edition, Cengage Learning, US.

Unit- 3: Daniel Rubinfeld, RobertPindyck(2014), Microeconomics, 8th Edition, Pearson Publications.

Unit- 4: H.L.Ahuja, Principles of Microeconomics, (2016), 22nd Edition, S.Chand, NewDelhi.

Unit-5: Domonic Salvatore, Principles of Microeconomics, 5th Edition, (2007), Oxford Press, London.

Referencebooks

Domonic Salvatore, Principles of Microeconomics, 5th Edition, (2007), Oxford Press, London.

Hal R. Varian (2004), *Intermediate Microeconomics* (East-West Press: New Delhi).

Ruffin Roy. J (1992) *Intermediate Microeconomics* (Harper & Collins Publishers-   New york).

Course Outcomes
1. After studied unit-1, the student will be able to understand the basic theoretical foundation of microeconomics.
2. After studied unit-2, the student will be able to analyse consumer behavior based especially on market purchases.
3. After studied unit-3, the student will be able to analyse consumer equilibrium through the techniques of indifference curve and budget line.
4. After studied unit-4, the student will be able to compare the cost for the purchase of disclosing and reporting on condition subject to improvement.
5. After studied unit-5, the student will be able to learn the nature of different market structure based on the characteristics of market.

PAPER - 2

MACROECONOMICS I

Course Objectives:

1. To get awareness on National Income Accounts
2. To study the Theory of Employment
3. To know about Consumption Function
4. To know about Investment function and
5. To specify the General Equilibrium models.

UNIT-I: National Income Accounts
National Income Perspective – GNP – NNP Components - Circular flow of income in Closed and Open Economy - Stock–flow relationship - Concepts of Social Accounting - Input–Output Accounting and Balance of Payments Accounting - Economic Welfare and National Income – The Consumer Price Index and Producer Price Index.

UNIT-II: Theory of Employment
Classical, Say's Law of Market - Full Employment Equilibrium – Saving Investment Equality - Pigou - Keynesian Underemployment Equilibrium – Vertical Aggregate Supply Curve – Real balance cycles.

UNIT-III: Consumption Function
Short-run and Long-run Consumption Function - Developments in Consumption Functions (Absolute Income, Relative Income, Permanent Income and Life Cycle Hypothesis) Early Empirical Evidence on the Keynesian Consumption functions other factors affection consumption - Empirical Studies and Policy implications of Consumption Theory.

UNIT-IV: Investment Function
Types - Marginal Efficiency of Capital and the Rate of Interest - Factors influencing – Multiplier – Accelerator – Interaction – Super Multiplier - Influence of Policy measures on Investment - Empirical Evidence – The Desired stock of capital – Inventory Investment.

UNIT-V: General Equilibrium
Keynesian IS–LMmodel with Government Sector - Extension to Open Economy - IS–LM models with labour market and flexible prices – Dynamic Shifting of Aggregate demand and supply functions – Effective demand – Integration of real and monetary sectors through IS and LM function -Interaction of Monetary and Fiscal Policy in General Equilibrium.

Text Books:

Unit 1:Mankiw N. Gregore, (2010), Macroeconomics, Worth Publishers, New York.

Unit 2: Roger E.A. Farmer, (2002), Macroeconomics, (2002, Second Edition) Thomson Asia Pvt. Ltd.

Unit 3:Ackley.G(1978), Macroeconomics: Theory and Policy Macmillan, New York.

Unit 4: Shapiro. G. (1996), Macro Economic Analysis, Galgotia Publication, New Delhi.

Unit 5: Jhingan.M.L. (2000), Macro Economic Theory, Vrinda Publication Ltd, Delhi.

References

1. Dornbusch, Rudiger, Stanley Fischer, and Richard Startz (2000). Macroeconomics, Tata McGraw-Hill Publishing Company, New Delhi.
2. Roger E.A. Farmer (2002), Macro Economics, Thompson Asia Pvt. Ltd., Singapore
3. R T Froyen (2008), Macroeconomics, Theory and policies, Prentice Hall.
4. Errol D'Souza (2012), Macroeconomics, Pearson Publications, New Delhi.
5. Mihir Rakshit (2007) Money and Finance in the Indian Economy, OUP, New Delhi, India

Course Outcomes:

1. After studied Unit-1, the student will be able to get awareness on National Income components.
2. After studied Unit-2, the student will be able to know about the classical theory of Employment and Unemployment.
3. After studied Unit-3, the student will be able to know about the theories of Consumption Function.
4. After studied Unit-4, the student will be able to know about the Investment function and its empirical evidences.
5. After studied Unit-5, the student will be able to understand the General Equilibrium models.

SEMESTER-I

PAPER - 3

STATISTICS FOR ECONOMICS I

Course Objectives:
1. To make students understand the concept of measurements of statistics.
2. To make student to gain knowledge with numerical and quantitative issues in business.
3. To enable the students to use statistical sampling methods.
4. To have a proper understanding of statistical applications.
5. To give practical knowledge of using basic statistical data.

Unit – I: Introduction

Definition of Statistics – Importance of Statistics - Origin and Growth of Statistics – Types of Statistics (Descriptive and Inferential Statistics) – Applications of Statistics – Statistics and Economics – Importance of Statistics for Economics – Statistics and Computers.

Unit – II: Methods of Data Collection

Data Definition – Types of Data - Quantitative Data, Qualitative Data – Primary Data - Secondary - Method of Data Collection – Presentations of Data (Tables and Different types of Graphs and charts - Frequency Distribution and Cumulative Tables and Graphs) – Planning the survey – Scope of the Survey - Specification of the Purpose Survey – Executing the Survey

Unit – III: Sampling Methods

Definition Population, Sample, Sampling – Sampling Techniques – Probability Sampling – Types of Probability Sampling - Methods of Probability Sampling – Advantages and Limitations of Probability Sampling – Non-Probability Sampling – Types of Non-Probability Sampling - Methods of Non-Probability Sampling – Advantages and Limitations of Non-Probability Sampling – Size of Sampling - Theoretical Basis of Sampling

Unit – IV: Descriptive Statistics

Descriptive Statistics – Measures of Central Tendency – Mean – Median – Mode – Uses of various Measures of Average – Merits – Limitations - Spread of a Distribution - Measures of Dispersion- Range - Variance - Quartile - Mean Deviation - Standard Deviation –Coefficient of Variation - Merits – Limitations – Skewness – Moments – Kurtosis

Unit –V: Correlation and Regression Analysis

Scatter Diagram – Correlation Definition – Significance of Correlation – Causation – Types of Correlation – Methods of Correlation – Uses of Correlation – Regression Definition – Uses of Regression Analysis – Regression Equation – Difference between Correlation and Regression analysis – Limitations of Regression Analysis – List of Formulae

Text Books

1. **Unit-1:** S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi and Speigal, M.R. (1992), Theory and Problem of Statistics, McGraw Hill Book Co., London.

2. **Unit-2:** S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi.

3. **Unit-3:** S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi and Prof. A.L. Nagar and R.K. Das. `Basic Statistics', Oxford University Press, New Delhi.

4. **Unit-4:** S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi and Seymour Lipschutz and John J, Schiller (1999), Introduction to Probability and Statistics, Schaum's Outlines, McGraw – Hill International Editions.

5. **Unit-5:** S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi and Miller, I. and Miller, Marylees. John E. Freund's Mathematical Statistics with Application, 7th ed., New Jersey: Prentice Hall, 2010.

References

Aggarwal. Y.P (2002), Statistics Methods – Concepts Application and Computation, Sterling Publishers Private Ltd., New Delhi.

Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.

Wonnacott H. Thomas &Wonnacott J. Ronald (1969), Introductory Statistics, John Wiley & Sons, Inc. New York.

Course outcomes

1. After studying Unit-1, the student will be able to understand the basic Statistics.

2. After studying Unit-2, the student will be able to gain knowledge on collection of data and statistical survey.

3. After studying Unit-3, the student will be able to understand the Sampling methods

4. After studying Unit-4, the student will be able to understand the Descriptive Statistics.

5. After studying Unit-5, the student will be able to gain knowledge on correlation and regression analysis.

PAPER - 4

INDIAN ECONOMIC DEVELOPMENT

Course Objectives

1. To enable the students to know the Economic Development of India

2. To provide an understanding of the various phases of growth of Indian economy.

3. To familiarize with various plan and initiations towards development of the economy.

4. To introduce macro level trends, status, issues and policies of the various sector of Indian economy.

5. To achieve the goal of economic development.

Unit 1: Growth and Structural Change
Indian economy at Independence - The policy framework: statist policy, transition to market-oriented policy - role of erstwhile Planning Commission and NITI AyogTwo phases of growth (1950-1980 and 1980 onwards) -Factors Underlying Turnaround in growth - Structural Change in Indian economy

Unit 2: Agricultural and Industrial Sectors
Performance of agricultural sector, factors determining agricultural growth - Factors underlying food inflation - Agricultural price policy and food security - Industrial Growth - Industrial growth before and after reforms - Dualism in Indian manufacturing - Issues in performance of public sector enterprises and privatization.

Unit 3: Fiscal Developments, Finance and External Sector
Expenditure trends - GST: rationale and impact - Evolution of the financial sector in post-liberalisation period - External sector performance - Emergence of India as Major Exporter in services - Performance of manufacturing sector

Unit 4: Poverty and Inequality
Measuring poverty in India: Selection of poverty lines - Poverty in pre and post liberalization periods - Impact of growth on poverty - PDS vs cash transfers, feasibility of universal basic income in India - Inequality in India in pre and post liberalization periods

Unit 5: Social Issues
Gender gap in India - Ttrends in Female Labour Force Participation Rates - Factors Determining Female LabourForce Participation - Employment: changing nature of employment in India, jobless growth" - Labour in informal sector - India's demographic transition.

Textbook

.Uma Kapila (Ed.) (2020), Indian Economy Since Independence , Academic Foundation, New Delhi, 30th Edition.
.
Uma Kapila (Ed.) (2017), Indian Economy: Economic Development and Policy (2016-17), Academic Foundation, New Delhi.

References

KausikBasu (Ed.) (2012), Oxford Companion to Indian Economy, 3rd Edition, OUP, New Delhi

Ashima Goyal (Ed.) The Oxford Handbook of the Indian Economy in the 21st Century: Understanding the Inherent Dynamism, Oxford University Press.

Government of India, Economic Survey (Annual issues since 2015). Ministry of Finance, New Delhi

Course Outcomes

1. After studied unit-1, the student will be able to understand the workforce participation in different sectors.

2. After studied unit-2, the student will be able to understand theimportance of agriculture in economic development.

3. After studied unit-3, the student will be able to analyze the achievements of all the five year plans and present NITI Aayog's functions.

4. After studied unit-4, the student will be able to understand the economic infrastructure and its role in economic development.

5. After studied unit-5, the student will be able to gain knowledge on new economic policy and its implications in India.

CORE ELECTIVE
PAPER 1
(To choose 1 out of 3)

A. AGRICULTURAL ECONOMICS

Course Objectives

1. To make the students to comprehend the core aspects of agricultural economics and its scope and importance.

2. To analyze the various theories on agricultural development and their using in research context.

3. To make awareness on agricultural produce and channels of marketing.

4. To elevate the students to grasp the different sources of agricultural finance and its operations.

5. To provide the students information on various agricultural polices pertaining to agricultural commodities.

Unit-I: Introduction
Scope and significance of agriculture- role of agriculture in India's development- inter-sectoral linkages - an overview.

Unit- II: Agriculture production and Development
Schultz's Transformation model – Jorgensen's model of development of dual economy - Fei and Ranis model of economic growth – Mellor's model of agricultural development – Boserup model of agricultural development-- production function: Cobb Douglas, Spillman and Cobweb theorem.

Unit –III: Agricultural Labour
Agricultural labour: types – supply of labour – problems - rural unemployment: types, consequences and remedial measures- minimum wages for agricultural workers - an evaluation- poverty eradication programmes – recent wage and self-employment programmes

Unit– IV: Agricultural Marketing Finance
Agricultural finance: meaning, nature, types, sources and problems of agricultural finance- co-operatives in rural finance- role of commercial banks and NABARD in rural finance- farm capital - meaning, types, and marginal efficiency of farm - capital and capital formation in agriculture.

Unit– V: Agricultural Price Policy
Objectives and need of agricultural price policy – stability and trends in agricultural prices – evaluation of agricultural price policy in India – agricultural exports - current issues in Indian agriculture.

Text Books

Unit-1Lekhi R.K. and Joginder Singh, 2015, Agricultural Economics: An Indian Perspective, Kalyani Publishers, Ludhiana.

Unit-2 Sadhu An, Singh Amarjit and Singh Jasbir, 2014, Fundamentals of Agricultural Economics, Himalaya Publishing House, Delhi

Unit-3 Acharya SS &Agarwal NL 2004, Agricultural Marketing in India – Oxford & IBH.

Unit-4 Lekhi R.K. and Joginder Singh, 2015, Agricultural Economics: An Indian Perspective, Kalyani Publishers, Ludhiana.

Unit-5 JanardhanaRao. N, 2005, Indian Agriculture: Issues and Perspectives, ICFAI University Press, Hyderabad.

References

1. Mridula Mishra, 2010, Agriculture and Food Economics, Serials Publication, New Delhi.
2. Shovan Raj, 2009, Handbook of Agriculture, Oxford University Press, New Delhi.
3. Gangadhar Banerjee and Srijeet Banerjee, 2017, Economics of Sustainable Agriculture and alternative production systems, Ane Books Pvt. Led, Chennai.
4. John B. Penson, Oral Capps, Parr Rossan and Richard T. Woodward, 2019, Introduction to Agricultural Economics, Pearson Publication, New Delhi.
5. Nirmala Ravi Kumar K, 2016, Agricultural Production Economics, Astral International Pvt. Ltd, New Delhi.
6. David. L. Derbertin, 1986, Agricultural Production Economics, Macmillan Publishing Company, New York.
7. R.L. Cohen, 2001, The Economics of Agriculture, Mohit Publication, New Delhi.
8. Bilgrami S.A.R, 2000, An Introduction to Agricultural Economics, Himalaya Publishing House, Mumbai.

Course Outcomes

1. After studied unit-1, the student will be in a position to understand the overview of agricultural economics and basic knowledge of production function.

2. After studied unit-2, the student acquires knowledge on knowing various models on agriculture and its development.

3. After studied unit-3, the student will be able to understand the agricultural marketing and its operations.

4. After studied unit-4, the student will be able to understand different sources of agricultural finance.

5. After studied unit-5, the student will be able to understand the government pricing policies on agriculture and allied industries

CORE ELECTIVE
PAPER 1

B. LABOUR ECONOMICS

Course Objectives

1. The objective of the course is to develop abilities in acquiring a better understanding of the functioning of labour market.

2. The study of labour economics seeks to understand the relationship between workers and employers.

3. The study is important to society as it determines wages, the causes for discrimination and how government should manage recessions.

4. The study helps to make a policy frame work for maintaining equilibrium between demand and supply of labour.

5. It is a systematic study of various theories, concepts, hypotheses and steps relating to the labour class.

6. The scope of subject covers state activity where labour directly or indirectly involved.

Unit-1: Supply and Demand Behaviors
Nature and characteristics of labour markets in Developing countries like India - Paradigms of Labour Market: Classical, Neo- classical and dualistic model - Analysis of demand supply forces- Demand for Labour market - size and pattern of investment - Government Labour policies.

Unit-2: Unemployment and Inequality
Importance of employment - Concept and measurement of unemployment - Causes and measures of Industrial Dispute, rationalization, technological change and modernization - Rural Unemployment and educated Unemployment- Technological progress and productivity- capitalization effect**.**

Unit-3: Wage Determination: Theory and Practice
Classical, Neo classical and bargaining theories of wage determination - Concepts of wages – problems in implementation of minimum Wages - Wage determination - Organised and Unorganised sectors - Wage and productivity- wage and inflation relationship - Wage differentials in terms of firm, Industry, Occupation, Sex and Skills- wage standardization - Wage policy in India- Risk sharing- efficiency wage and involuntary.

Unit-4: Industrial Relations and Trade Unions
Need for Industrial Relation Machinery-Preventive and Curative methods-Collective Bargaining, Arbitration and Adjudications-Industrial Democracy – concept of workers participation in Management – Role of State in Industrial Relations.

Unit-5: State and Labour
Role of state in determination of Labour issues - Labour policies of the Government in the past and present - various social security schemes- Importance Labour legislations in India and their implications - Impact of ILO.

Text Books

Unit-1 George.J.Borjas, (2018), Labour Economics, McGraw Hill,8th Edition, London.

Unit-2 Hyclak, Jones, Thornton, (2018) 2[nd]Edition,Fundamentals of Labour Economics, Cengage Learning Inc., London.

Unit-3 Sinha and Sinha, Labour Economics, SBPD Publications, New Delhi.

Unit-4 Esrafil Ali, Labour Economics, (2013), 1se Edition, Everest Publishing House, New Delhi.

Unit-5M.V.Joshi, (2015), Labour Economics and Labour Problems, Atlantic Publishers and Distributors, New Delhi.

References

1. Pierre Cahuc& Andre Zylberberg (2009), Labour Economics, PHI Learning Private Ltd. New Delhi.

2. Lester.R.A.(1964), Economics of Labour, Macmillan, London.

3. Connell.C.R. and S.L. Brue(1986), Contemporary Labour Economics, McGraw Hill, New Delhi.

4. Papola T.S. P.P. Ghosh and A.N.Shama(EDS) (1993) Labour employment: Industrial relation in India, B.R. Publishing Corporation.

5. Praveen Jha B.R. (2001), Agricultural labour in India, Vikas publication, New Delhi.

Course Outcomes
1. After studied unit-1, the student will be able to understand thetheories of labour market.

2. After studied unit-2, the student will be able to understand the employment and unemployment issues.

3. After studied unit-3, the student will be able to gain knowledge on wage determination in theory and practice.

4. After studied unit-4, the student will be able to know about the labour movement.

5. After studied unit-5, the student will be able to understand the labour legislations in India.

CORE ELECTIVE
PAPER 1
C. MONETARY ECONOMICS

Course Objectives
1. To make students understand on different concepts of monetary theory.
2. To familiarize the monetary policy of Indian Economy.
3. To elaborate the knowledge on the money and capital markets
4. To familiarize students on Keynesian and post Keynesian views on money
5. To bring awareness on the concept of Inflation.

Unit-1:Nature and functions of Money
Nature and scope of monetary economics- Functions of Money – the concept and definition of money – Measurement of money – Advantages of money – Theories of demand for money - Traditional and modern-concepts of liquidity-Newlyn-Radcliffe committee-Gurley and Shaw.

Unit-2: Classical and Neo-Classical Views on Theories of Money
Neutrality and Non-neutrality of Money-Classical and Neo-Classical Dichotomy-Integration of monetary and value theories.

Unit-3Keynesian and Post Keynesian Theories of Money-
Transactions demand for money-Keynes speculative demand for money- Baumol's Theory – Patinkin's the real balance effect-Tobin'sPortfolio Theory - Friedman Restatement Quantity theory of Money -Gurley and Shaw theories.

Unit-4: Monetary Policy
Monetary policy-concept of monetary policy – Instrument of monetary policy – Effectiveness of monetary policy in recession - Functions, techniques and constraints-Monetary Transmission Mechanism – Role of monetary policy in India.

Unit-5: Inflation and Deflation
Meaning – Open and suppressed inflation – Demand pull inflation – Inflationary Gap – Cost push inflation – Phillips Curve and inflation - Causes of inflation - theories of inflation- control and impact of inflation, Recent trends of inflation in India.

Text Books;

Unit-1: Chandler, L.V., Economics of Money and Banking (UBS) Revised Edition.

Unit-2: Chandler, L.V., Economics of Money and Banking (UBS) Revised Edition.

Unit-3: Gosh.B.N.and Rama Gosh,(1989),Fundamentals of Monetary Economics, Himalaya Publication, Bombay.

Unit-4: Gibson.W.E.and George G.Kaufman (1975),Monetary Economics, Tata Mc-Graw Hill, New Delhi.

Unit-5: Gibson.W.E.and George G.Kaufman (1975),Monetary Economics, Tata Mc-Graw Hill, New Delhi.

References:

1. Pierce, D G and P J Tysome (1985) Monetary economics: theories, evidence and policy, Butterworths, London.

2. Carl E Walsh (1998), Monetary Theory and Policy, MIT Press, Cambridge.

3. Bennett McCallum (1989), Monetary Economics: Theory and Policy, Macmillan.

4. C Rangarajan (1999), Indian Economy: Essays in Money and Finance, UBSPD.

5. Narendra Jadhav (1994), Monetary Economics for India, Macmillan.

6. R.B.I: Money supply in India: Concepts, Compilations and Analysis Report of the Second Working Group 1977

7. R.B.I: Working of the Monetary System in India: Report of Sukumony Chakravarthy Committee, 1985.

Course Outcomes

1. After studied unit-1, the student will be able to understand the nature and scope of monetary economics.

2. After studied unit-2, the student will be able to understand the Classical theories of money.

3. After studied unit-3, the student will be able to gain knowledge the Keynesian and post Keynesian theories of money.

4. After studied unit-4, the student will be able to acquire knowledge on monetary policies and its operations.

5. After studied unit-5, the student will be able to acquire knowledge on the concept of inflation and deflation.

OPEN ELECTIVE
PAPER 1
(To choose 1 out of 3)

A. BASIC ECONOMICS

Course Objectives:

1.Students who complete this course will be able to illustrate how consumers and sellers are behave in the market through use of the demand and supply theory, consumption, production and market structure.

2.Students who complete this course will be able to comprehend the important role of pricing methods to economic decision making.

3.Students who complete this course will be able to understand what is meant by market success and market failure.

Unit: I Introduction

Meaning - Definition – Scope of Economics – Relationship between Economics with other Social Sciences - Micro and Macro Economics.

Unit: II Consumption

Wants - Utility - Law of Diminishing Marginal Utility - Equip - Marginal Utility -Indifference Curve - Consumers Surplus.

Unit: III Demand and Supply

Law of Demand - Demand Schedule - Determinants of Demand - Elasticity of Demand - Law of Supply – Determinants of Supply - Supply Schedule.

Unit: IV Production

Factors of production and their features Law of Diminishing Marginal Return – Returns to scale - Economies of Scale – Organisation of Enterprise - Cost Concepts and classification

Unit: V Market Structure

Features of Perfect Competition, Monopoly, Monopolistic Competition and Oligopoly - Price Determination under Perfect Competition.

References:

1. K.K.Dewett : Modern Economic Theory, New Delhi,Shyam Lal Chariatable Trust.

2. H.L.Ahuja : A Text Book of Modern Economics, New Delhi, S.Chand& Co. Ltd.

3. M.L.Seth : Principles of Economics, Agra, Lakshmi Narain Agarwal.

4. Sampat Mukherjee: Modern Economic Theory WishwaPrakashan, New Delhi.

Course Outcomes:

1.The Students will be able to know the basic ideas of micro economics to the non-economic students

2. The students will be able to understand the basic knowledge about the consumption, demand and supply

3. The students will be able to know about the factors of production and their features

4. The students will be able to understand various market condition and their pricing.

OPEN ELECTIVE
PAPER 1

B. RECENT ISSUES IN INDIAN ECONOMY- I

Course Objectives
1. Understand the approach to economic development.
2. Describe the indicators of development.
3. Understand the objectives and strategies of Indian Planning.
4. Understand the features of India`s population.
5. Understand the development of infrastructural facilities in India.
6. Understand the new economic policy in India.

Unit-1: Economic Development and its Determinants
Approaches to economic development – Sustainable development – Indicators of development – Physical quality of life index – Human development index – Gender development index

Unit-2: Planning in India
Objectives of planning – Strategies of Indian planning – Targets of Indian planning – Achievements of plans – Decentralizations of Indian planning – Panchayat raj – Nagar palika.

Unit-3: Demographic Features, Poverty and Inequality
Meaning of demography – Broad demographic features of Indian population – Rural features of Indian population – Urban features of Indian population – Poverty in India – Poverty alleviation peogramme in India – Inequality.

Unit-4: Resource Base and Infrastructure
India`s infrastructure development – Energy – Coal and oil – Electric power – Thermal power – Nuclear power – Transport – Shipping – Communication

Unit-5: Economic Reforms
Rational internal reform - Rational external reform – New economic policy – Liberalization of Indian Economy -Privatization of Indian Economy - Globalization of Indian Economy – Inclusive growth

Reference books
1. Jhingan.M.L., The Economics of Development and Planning, Vrinda Publication Ltd, Delhi, 2012.
2. Misra and Puri, Indian Economy, Himalaya Publishing House. New Delhi, 2013
3. RuddarDutt and K.P.M. Sundaram, Indian Economy,S.Chand and Company Ltd.,New Delhi,2013..
4. S.Sankaran, Indian Economy-problems and policies, Margham Publications, Chennai,2012

OPEN ELECTIVE
PAPER 1

C. AN INTRODUCTION TO ENVIRONMENTAL ECONOMICS

Course Objectives:

1.To apply economic theories in to the environmental problems to solve the social issues.

2.To understand the importance of economic motives in all aspects of human life and will be familiar with constructing economic arguments

3.To explain environmental degradation in economic terms

Unit: I Introduction

Nexus between environment and economics – the principle of material balance – Market failure - private versus social cost – Trade-off between economic growth and environment - sustainable development - Environmental Quality as a Public Good.

Unit: II - Environmental Economic Theory for Resource Allocation

Economic theory for resource allocation: Theory of externalities - Benefit/Cost Analysis – Limits to Growth – Coase`s theorem- Simon Kuznets Inverted " U "shaped curve – Hedonic Theory.

Unit: III - Environmental problem in India

Sources and types of pollution (air, water, solid waste, noise, land degradation); Causes and effects of environmental degradation, Urbanisation and its Impact on Environment and Rural environmental problems - Energy-environment interaction.

Unit: IV –Environment-society interface and policy

Population and Environment – women and environment – Environmental acts in India – International initiative on environmental protection.

UNIT-IV: Environment and Human Health Problems

Consequences on Environmental Quality - Problems of Urbanization and Environmental Quality in India - Environment and Human Health.

References

1. U. Shankar (2000) „Environmental Economics, Oxford University Press, New Delhi
2. Eugine T. (2005): "Environmental Economics", Vrinda Publications, Pvt. Ltd, New Delhi.
3. M. Karpagam (2000) „Environmental Economics" Sterling Publisher Pvt.Lyd. New Delhi.
4. Charles D. Kolstad (2000): "Environmental Economics", O
5. Oxford University Press, New York.

Course Outcomes:

1. The students will able to understand the subject of environmental economics, including its key principles and theories.

2. The students will able to understand the economic techniques to analyse environmental problems and to create environmental policies

3. The students will able to understand the procedures of allocation goods and resources, optimal usage and market failure in public goods provision

4. The students will able to understand the theoretical and practical knowledge of principles and practices in natural resource management, sustainability, globalization and environmental management to professional practice or further study;

5. The students will able to understand, analyse, synthesis and reflect the social implications of environmental concerns and challenges both in India and global.

PAPER - 5

MICROECONOMICS II

Course Objectives

1. The concepts, theories and diagrammatical representations use the most important Theoretical tools that aid the student to understand the subject.
1. The objective of micro economic theory is to analyse how individual take decisionsand behave in a variety of economic environments.
2. The subject helps to focus on the different types of market structure.
3. The subject helps to take decision in real life situations to generate a better
4. economic life for themselves and their neighbours.
5. Microeconomics assist for determining the most efficient manufacturing process.

Unit-1: Alternative Theories of Firm
Objectives of business firms by Marris, Simon, Hall, and Hitch - Theories of pricing - Sales maximization model Baumols' Static models – Baumol'sDynamic Model. Williamson'sBaumol**.**

Unit-2: Theories ofDistribution
Factor pricing Factor Pricing in imperfect product and Factor markets -Theories of Rent: Ricardo- Modern theory of rent – Theories of wages: classical and modern theories of wages – Theories of Interest: Classical – Keynesian and Neo Keynesian theory of interest – Theories of Profit: Hawley's Risk theory, Knight's Uncertainty theory and Schumpeter's Innovation theory.

Unit-3: Welfare Economics
Criteria of Social welfare Concept of Social Welfare Function – Consumption Principle the Kaldor and Hicks Criterion – Classical Welfare Economics- Pareto Optimality - Problem of Welfare Maximization - Compensation Principle - A.K. Sen's Social Welfare function **–** Arrow's social choice and individual values.

Unit-4: General Equilibrium
Stable and Unstable equilibrium – Types – Static: micro static – macro Static – comparative static – Dynamic: micro dynamic equilibrium – macro dynamic equilibrium - Two sector model of General equilibrium - Walrasian Model **–** General equilibrium 2x2x2 model (Restricted to static properties of general equilibrium)

Unit-5: Economics of Uncertainty
Modern Utility Analysis – Newmann – Morgensternutility index – Friedman – Savage hypothesis - Consumer sovereignty – its limitations

Text Books

Unit-1:Koutosoyiannis.A. (1979), Modern Microeconomics, Macmillan Press - London.

Unit-2: N. Gregory Mankiw. (2012), Principles of Microeconomics, 7th Edition, Cengage Learning, US.

Unit-3: Daniel Rubinfeld, Robert Pindyck (2014), Microeconomics, 8th Edition, Pearson Publications.

Unit-4: H.L.Ahuja, Principles of Microeconomics, (2016), 22nd Edition, S.Chand, NewDelhi.

Unit-5: N.GreforyMankiw, Principles of Microeconomic, (2007), Cengage Learning India Pvt Ltd., NewDelhi.

References

1. Koutosoyiannis.A. (1979), Modern Microeconomics, Macmillan Press – London.
2. N. Gregory Mankiw. (2012), Principles of Microeconomics, 7th Edition, Cengage Learning, US.
3. Hal R. Varian (2009), Intermediate Microeconomics – A Modern Approach, 8th Edition, Published by Affiliated East-West Press. US.
4. Dominic Salvatore (2018), Microeconomics 4th Edition, Schaum's Series.

Course Outcomes
1. After studied unit-1, the student will be able to understand the theories of firm.
2. After studied unit-2, the student will be able to acquire knowledge on theories of distribution.
3. After studied unit-3, the student will be able to get awareness on the contribution of economist towards welfare economics model.
4. After studied unit-4, the student will be able to understand the general equilibrium through various models.
5. After studied unit-5, the student will be able to acquire knowledge on modern utility analysis.

PAPER - 6

MACROECONOMICS II

Course Objectives:
1. Toenlarge the scope and understanding of Macroeconomics through IS LM model
2. To understand the impact of inflation and deflation.
3. To explain the concept of Business cycle and its phases.
4. To explore the role of monetary and fiscal policy.
5. To explain Neo Classical and Post Keynesian models.

Unit-I: Multiplier and Accelerator:
Multiplier - Definition – Assumption – Types: Investment Multiplier - Employment Multiplier– Leakage of Multiplier – Accelerator – Income determination – Multiplier in under developed country.

Unit-II: Inflation and Deflation:
Classical **–** Keynesian **–** Monetarist – Structural theories of Inflation - Phillips Curve – Short-run and Long run – Deflation and Stagflation - Measures to control Inflation and Deflation.

Unit-III: Business Cycle:
Concept and Phases of Business cycle – Models: Samuelson - Hicks - Kaldor -Schumpeter – Cobweb Theorem - Relative efficacy of Monetary and Fiscal Policies.

Unit-IV: Modern Macroeconomics
The New Classical Macroeconomics - Rational expectations hypothesis - Policy ineffectiveness theorem -Policy implications of new classical approach - New Keynesian Macroeconomics - Core propositions - New Keynesian business cycle theory - Policy implications of new Keynesian macroeconomics

Unit-V: Macro Economic Policy:
Macroeconomic Goals – Objectives –Instruments – Macroeconomic Imbalances – Macroeconomic Policy during the Reform period - Macroeconomic Policy and Sustainable growth.

Text Books:

Unit I: Mankiw N. Gregory , (2010), Macroeconomics, Worth Publishers, New York.

Unit II:Jhingan.M.L.(2000), Macro Economic Theory, Vrinda Publication Ltd, Delhi.

Unit III:Mankiw N. Gregory , (2010), Macroeconomics, Worth Publishers, New York.

Unit IV:Brian Snowden and Howard R Vane, (2005), Modern Macroeconomics : Its origins, Development and Current State, Cheltenham and Massachusetts : Edward Elagar.

Unit V: Jhingan.M.L.(2000), Macroeconomic Theory, Vrinda Publication Ltd, Delhi.

Reference Books:

1. Mankiw N. Gregory , (2010), Macroeconomics, Worth Publishers, New York.

2. Roger E.A. Farmer Macroeconomics, (2002, Second Edition)Thompson Asia Pvt Ltd.

3. Brian Snowden and Howard R Vane, (2005), Modern Macroeconomics : Its Origins, Development and Current State, Cheltenham and Massachusetts : Edward Elagar.
4. *Business Cycle Economics* by Todd A. Knoop (Santa Barbara, California: Praeger)

Course Outcomes:

1. After studied Unit-1, the student will be able to know about the macroeconomic policies and its implications.

2. After studied Unit-2, the student will be able to understand the concept of multiplier and accelerator.

3. After studied Unit-3, the student will be able to gain knowledge on various theories of inflation and deflation

4. After studied Unit-4, the student will be able to acquire knowledge on different phases of business cycle and its theories.

5. After studied Unit-3, the student will be able toanalyse the application of monetary and fiscal policy to attain the price stability.

PAPER - 7

STATISTICS FOR ECONOMICS II

Course Objectives:

1. To impart the knowledge on Probability theorems.
2. The course will mainly emphasize on the different sampling distribution.
3. To develop detailed understanding on testing of hypothesis.
4. To encouragestudents to analyze economic indicators with the help of statistics.
5. To make students to apply different statistical tools on research projects.
6. To understand the role of statistics in day today life.

Unit – I: Probability
Basics of Probability – Definitions of Outcome – Sample Space – Experiment – Events – Types of Events - Exhaustive event - Equally likely events - Mutually exclusive events - Complementary event - Simple and Compound event - Dependent event - Independent event – Problems based on Identification of Events - Additive Law of Probability - Multiplicative Law of Probability – Bayer's Theorem – Problems based on Additive law, Multiplicative law and Bayer's theorem

Unit – II: Probability Distributions
Distribution Definition – Types of Distribution (Discrete, Continuous) – Random Variable – Probability Density Function - Probability Distribution Function – List of Discrete Distributions - List of Continuous Distributions - Binomial Distribution – Poisson Distribution - Exponential Distribution - Normal Distribution - Standard Normal Distribution - Properties, Simple Problem; use of Tables.

Unit – III: Sampling Distribution and Hypothesis Tests
Sampling Distribution Definition – Parameter -Sample Size - Sample Mean – Sample Proportion – Sample Variance – Confidence Interval – Sampling Error - Central Limit Theorem - Sampling distribution of the sample mean – Sampling distribution of the sample proportion

Unit – IV: Hypothesis Tests for Two Populations
Hypothesis Definition – Types of Hypothesis – Types of Error – P- Value – Level of Significance – One tailed tests – Two tailed tests – Single population – Test for Mean, Proportion and Variance – 'z'-Tests – 't'- test – 'F'- test – Chi Square Test – Basics and properties – One way Analysis of variance – Two way analysis of Variance

Unit – V: Non Parametric Tests
Non Parametric - Concept and Definition – Uses - Sign Test - Mann Whitney test - Wilcoxon signed rank test - Kruskal Wallis test.

Text Books

1. Unit I: S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi and Speigal, M.R. (1992), Theory and Problem of Statistics, McGraw Hill Book Co., London.

2. Unit II: S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi.

3. Unit III: S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi.

4. Unit IV: S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi and Prof. A.L. Nagar and R.K. Das. `Basic Statistics', Oxford University Press, New Delhi.

5. Unit V: S.P. Gupta (1969) Last Edition (2017), Statistical Methods, Sultan Chand & Sons., New Delhi.

Reference Items: Books, Journal.

1. Seymour Lipschutz and John J, Schiller (1999), Introduction to Probability and Statistics, Schaum's Outlines, McGraw – Hill International Editions

2. S.P. Gupta (2017), Statistical Methods, Sultan Chand & Sons., New Delhi.

Course Outcomes (five outcomes for each units should be mentioned)

1. After studying Unit-1, the student will be able to understand the various probability theorems.

2. After studying Unit-2, the student will be able to identify the Statistical tools in probability distributions**.**

3. After studying Unit-3, the student will be able to understand the Sampling distribution.

4. After studying Unit-4, the student will be able to use testing of hypothesis in research.

5 After studying Unit-5, the student will be able to gain knowledge on analysis of variance.

CORE ELECTIVE
PAPER 2
(To choose 1 out of 3)

A. ECONOMICS OF SOCIAL ISSUES

COURSE OBJECTIVES

1. To describe the economic value withcultural heritage.

2. To equip the students to analyze various social and economic issues.

3. To make students understand income distribution and its impact on economic wellbeing.

4. Toanalyze the impacts of government programs and policies on social issues.

5. To develop the ability of students to understand and analyze social issues from an economic perspective.

Unit-1: Economics of Art and Culture
The economic value of Cultural heritage-Economics and classical music "Baumol's cost disease"-The impact of commercialization on art and culture- The costs and benefits of farming and legalizing drugs-The concept of "National Addiction"-Costs and benefits of prohibition.

Unit -2: Economics of Social Customs
Economics of rising age of marriage and declining family size- How economic globalization is changing the Indian family- Economics of gift-giving: why value of gift in kind is higher compared to gift in cash- Application: Reasoning about economic Inequality between men and women.

Unit- 3: Economics of Social Evils
Discrimination: Why discrimination can be rational and the economic harm it causes-Pollution: The economic roots of the pollution problem- Addiction: Economic case for legalizing drugs as solution to addiction- Corruption-An Economists Perspective-Application: Why prohibition does more harm than good: An Economic Perspective.

Unit-4: Economics of Sportsand Discrimination
The nature of competition in sports-Economic earnings of sports people "Economies of scale"-Economics of Indian Premier League (IPL) - Economic costs of discrimination-Types of discrimination, Rationale and Pure discrimination-Market state and discrimination-casteism - honor killing–religionism.

Unit-5: The Information Economy and National Issues
The features of the information economy-The market system and the information economy-The impact of the Internet on business and culture- The Union Budget and you

– Taxes, Subsidies and Fiscal Deficit- How the stock market works – Bulls and Bears-
The global economic crisis: Its origin and impact on India- Application: Living through
an economic downturn.

Text Books:

1. Unit-1:Dale yoder - Mass power Economics and Labour Problems, 1950, McGraw Hill
   Book Company. New York

2. Unit-2:Gumango. S.P. - Child labour (A Precarious Future), E35/103 Jawahar Park,
   Laximi Nagar, Delhi, year of publication 2001

3. Unit-3:Gilbert Slater - Some South Indian Villages, Oxford University Press,
   Madras,1918

4. Unit-4:Guha, Biswajit, - Economics of Child labour 2001, Deep and Deep Publication,
   New Delhi. (2001)

5. Unit-5:HemaVerma - Parents child rearing attitudes, Mohit publications, New Delhi110
   002, year 1997.

References

Charles A.Register and Paul W.Grimes(2015), Economics of Social issues, McGraw Hill
– New Delhi 21st edition.

Robert J. Stonebraker (2005), The Joy of Economics: Making Sense of Life, Online book
available free at http://www.facutly.winthrop.edu.stonebraker/book.html.

Tim Harford (2000), The Logic of Life: Discovering the New Economics of Everything,
(London: Little).

Paul Hayne (1998), Economic Way of Thinking, Prentice Hall, New Delhi.

Course Outcomes

1. After studied unit-1, the student will be able to understand economic value and cultural
   heritage.

2. After studied unit-2, the student will be able toget awareness on various social issues.

3. After studied unit-3, the student will be able to know the functioning of IPL.

4. After studied unit-4, the student will be able to understand the conceptual framework of
   the economics of discrimination.

5. After studied unit-5, the student will be able study the impact of IT on business and
   culture.

CORE ELECTIVE
PAPER 2

B. STATISTICAL SOFTWARE

Course Objectives.

1. To create a data file and understand the logics of opening an existing and saving a file in the software.
2. To make the students know the diagrammatic representation of the coded data and its interpretations.
3. To enrich the knowledge of the students in the application of statistical tests using the software.
4. To improve the knowledge of the students in the application of advanced statistical tests using the software.
5. To know more about the application of appropriate statistical test for error correction and basic understanding of time series model using the software.

Unit – I: Introduction to Statistical Software
Creating SPSS data file - Opening existing data file - Importing data from Non-SPSS file Format Data View – Variable view - Merging data from multiple files - Transforming variables - output; Creating tables, charts and graphs, Exporting output ,Creating and using syntax file

Unit- II: Diagrammatic Representation
Simple – Multiple - Drop line diagrams Area graph - Histograms - Pie chart – Range - Simple high low close Chart - Cluster high low close Chart - simple and cluster box plot.

Unit– III: Descriptive Statistics in Economics
Mean – Median – Mode – Percentiles – Quartiles - Standard deviation – Variance - Range, Minimum value – Maximum Value - Skewness - Kurtosis – 't' tests – cross tab and chi square test, one way ANOVA – Interpretation of Output

Unit- IV: Correlation Regression
Correlation – Regression - Logit Regression Dummy variables - Multi collinearity, test for detecting multicollinearity - Interpretation of Output

Unit– V: Serial Correlation and Non Parametric Tests
Non Parametric Tests - Durbin-Watson Statistics, Ljung-box Q-statistic, unit root test, time serious models - Interpretation of Output

Text Books

1. Unit-1 George Darren Mallery Paul, (2009), SPSS FOR WINDOWS, Pearson education. New Delhi.

2. Unit-2 Andy Field, (2000), Discovering Statistics Using IBM SPSS Statistics, Sage Publications Ltd, New Delhi.

3. Unit-3 Nancy L. Leech, Karen C. Barret and George A. Morgan (2014), IBM SPSS for Intermediate Statistics: Use and Interpretation, Routledge Publications, New Delhi.

4. Unit-4 George Argyrous (2012), Statistics for Research: With a Guide to SPSS, Sage South Asia Publications, New Delhi.

5. Unit-5 Andy Field, (2019), Discovering Statistics Using IBM SPSS Statistics, Sage Publications Ltd, New Delhi.

References

1. Foster Jeremy.J,(2001), Data Analysis Using SPSS For Windows Version 8 to 10:A Beginners Guide ,Sage Publications, New Delhi.

2. Croxton,Fredric.E.Dudley.J,Cowden and Sideny Klein,(1988), Applied General Statistics,Prentice Hall of India Ltd.New Delhi.

3. Andy Field, (2019), Discovering Statistics Using IBM SPSS Statistics, Sage Publications Ltd, New Delhi.

4. George Darren Mallery Paul, (2009), SPSS FOR WINDOWS, Pearson education. New Delhi.

5. Nancy L. Leech, Karen C. Barret and George A. Morgan (2014), IBM SPSS for Intermediate Statistics: Use and Interpretation, Routledge Publications, New Delhi.

E Materials

1. www.spss.co.in
2. www.spss.com
3. www.spsstools.net/spss.htm

Course Outcomes

1. After studied unit-1, the student will be able to understand to open a file, code the data and enter the data in the file.

2. After studied unit-2, the student will be able to understand the usage of diagrammatic representation of the coded data and its interpretations.

3. After studied unit-3, the student will be able to get thorough knowledge of the application of various statistical tests.

4. After studied unit-4, the student will be able to acquire better understanding of the application of advanced statistical tests.

5. After studied unit-5, the student will be able to perform the different test on statistical errors and time series models

CORE ELECTIVE
PAPER 2

C. MATHEMATICAL ECONOMICS

Course Objectives

1. To make the students to understand the meaning and usage of matrices and their application to various economics theories.

2. To get the knowledge of basic realization of differential calculus and their application to various economic concepts.

3. To help the students to get familiarize about differentiation of first and higher orders and its application.

4. To make the students acquaint about the application of input -output analysis and thorough learning of game theory.

5. To support the students to understand the concept of integration and its application in various economic concepts.

Unit- I: Elementary Calculus
Mathematics for Economists – History of Thought – Graphs and Co-ordinates – intercept and slope of a straight line equations in Economics. Elementary functions – Linear functions – non - linear functions – Economic Applications – Market Equilibrium – National Income determination

Unit-II:Liner Algebra
Determinants and their basic properties – Solution of simultaneous equations through Cramer's rule –matrix inversion and rank of a matrix – Concept of vector – its properties – Matrices and vectors – Concept of quadratic forms – Eigen roots and Eigen vectors.

Unit- III: Differential Calculus-I
Exponential growth – Separable equations – linear differential equations and integrating factors – Second-order differential equations – Economic applications of differential equations.

Unit-IV: Differentiation Calculus-II
Second order derivatives and Curvature Convex, Concave, point of Inflexion -Application in Economics: TC, AC, MC curves Derivatives of Exponential and logarithmic functions - Chain Rule; Product Rule; Quotient Rule; Elasticity and the derivatives.

Unit-V: Linear Programming
Basic concept, formulation of a linear programming problem -its structure and variables – Solution of linear programming through graphical and simplex method – Statement of basic theorems of linear programming –Concept of duality and statement of duality theorems – Concept of a game – Strategies – simple and mixed – Value of a game – Saddle point solution – Simple applications.

Text Books

1. Unit-1: Chaing A.C and Kevin Wainwright, Fundamental Methods of Mathematics Economics, McGraw Hill Education, New Delhi, 2017.

2. Unit-2:Edward T. Dowling,Mathematical Methods (Schuman's Series), McGraw Hill Publications, New Delhi 2003.

3. Unit-3: Chiang. A.C, Fundamentals methods of Mathematical Economics, McGraw Hill Publications, New Delhi 2002.

4. Unit-4:Agarwal C.S and Joshi R.C, Mathematics for students of Economics, New Academic Publications, Delhi 2008.

5. Unit-5: Rehshaw, Geoff, Mathematics for Economics; 2nd Edition Oxford University Press, New Delhi 2009.

References

1. Anthony, Martin & Biggs, Norman (2009), Mathematics for Economics and Finance-Methods and Modelling, Cambridge University Press, New York.

2. Bradley, Teresa & Patton, Paul (2002), Essential Mathematics for Economics and Business, Wiley India Private Ltd., New Delhi.

3. Renshaw, Geoff, (2009), Maths for Economics (2nd Edition), Oxford University Press, New York.

4. Weber, E. Jean, (1982), Mathematical Analysis Business and Economic Applications (4th Edition), Harper & Row, Publishers, New York.

Course Outcomes

1. After studied unit-1, the student will be in a position to apply different concepts of matrices in various economic situations.

2. After studied unit-2, the student understands the application of derivatives and their usage in economic concepts.

3. After studied unit-3, the student acquires thorough knowledge of higher order derivates and its application in economic theoretical concepts.

4. After studied unit-4, the student gets acquainted with the application of input – output analysis and also different methods of game theory.

5. After studied unit-5, the student gets clear understanding of integration and its usage in economic concepts.

OPEN ELECTIVE
PAPER 2
(To choose 1 out of 3)

A. MARKETING MANAGEMENT

Course Objectives

1. Understand the nature, scope, importance, characteristics of marketing, marketing planning, marketing segmentation
2. Analyse the marketing environment, Consumer behavior and market research
3. Identify the Product decisions and the strategy of pricing decisions
4. Understand the distribution channels of a business firm and the composition of sales promotion
5. Understand the Marketing services

Unit-1: Marketing Management

Meaning of marketing and marketing management - Nature of marketing - scope of marketing - Importance of marketing - Marketing concepts: Production concept, Selling Concept - Marketing segmentation - Importance of marketing planning - Steps in marketing planning process.

Unit-2: Marketing Environment

Meaning of Marketing Environment - Marketing mix - Elements of Marketing mix - Consumer decision making process - Consumer behavior - Factors influencing consumer behavior - Characteristics of buying behavior - Market research.

Unit-3: Product Decisions

Concept of a product - classification of products - Product mix strategies - Branding - Types of Branding - Functions of branding - Packaging - Kinds of packages - Functions of packages - Labeling - Functions of labeling - Product life cycle - New product development and process.

Unit-4: Distribution - channels and sales promotion decisions

Meaning - Functions - Types of distribution - channels - Factors affecting the channels of distribution - Retailing - Wholesaling – Promotion - Promotional mix - Advertising - Personal selling - Sales promotion tools and techniques.

Unit-5: Marketing services

Social, ethical and legal aspects of Marketing - Concepts of Marketing Services - Characteristics of market services - International marketing - Importance of international marketing - Green marketing - Cyber marketing - E-commerce - E-Banking - E-trading –E-business - E-Marketing.

Reference books

1. R.S.N. Pillai&Bagavathi - Modern Marketing Principles and Practices, 2009, S. Chand & Company Ltd., New Delhi.
2. Dr. C. B. Gupta & Dr. N. Rajan Nair - Marketing Management, 2008, New Delhi, Sultan Chand & Sons.
3. Philip Kotler - Marketing Management, 2009, Prentice Hall of India.
4. RajanSaxena-Marketing Management, Tata McGraw-Hill Publishing Company Limited, New Delhi, 2006.
5. S.A.Sherlekar- Marketing Management, Himalaya Publishing House, Bombay,2012

OPEN ELECTIVE
PAPER 2
B. RECENT ISSUES IN INDIAN ECONOMY – II

Course Objectives

1. Understand the approach farming and precision.

2. Analyse the trends in agricultural farming

3. Understand the pricing of agricultural inputs.

4. Describe the performance of public sector enterprises in India.

5. Distinguish between micro and small enterprises.

6. Understand the corruptions.

7. Understand the tax evasions.

8. Explain trade reports in India.

Unit-1: Agricultural Sector

Size of farms – Trends in agricultural production – Organic farming – Precision farming – Pricing of agricultural input – Agricultural marketing – Agricultural credit.

Unit-2: Industrial Sector

Growth and pattern of industrialiastion – Industry policy since 1991 – Micro and small enterprises – Measures to promote MSEs – MSEs act 2006 – Industrial sickness.

Unit-3: Service Sector

Education – Health – Contributions of education and health to development – Policies and performance – Commercial banking – Development banking –Insurance – Information technology sector

Unit-4: Good Governance

Factors affecting good governance – Parallel economy – Black money – Corruption – Corruption perception index in India - Tax evasion – Reforms in Fiscal sector, money market and capital market - SEBI

Unit-5: External Sector

Structure and direction of foreign trade – Structure and components of balance of payment – Export and import policy – Foreign capital and aid – Foreign direct investment – MNCs in India – Trade reforms in India.

Reference books

1. Jhingan. M.L., The Economics of Development and Planning, Vrinda Publication Ltd, Delhi, 2012.

2. .Misra and Puri, Indian Economy, Himalaya Publishing House. New Delhi, 2013.

3. RuddarDutt and K.P.M. Sundaram, Indian Economy,S.Chand and Company Ltd.,New Delhi,2013.

4. S.Sankaran, Indian Economy-problems and policies, Margham Publications, Chennai,2012.

OPEN ELECTIVE
PAPER 2

C. AGRICULTURAL ECONOMY OF INDIA

Course Objectives:
1.To familiarize the agricultural situation in India

2. To provide sound knowledge base on India's Agricultural economy before green revolution and after it.

3.To develop a critical study on recent Agricultural crises in India.

Unit: I Agriculture and Economic Development

Features of Agriculture - Importance of Agriculture in the Indian Economy - Relationship

between Agriculture and Non-Agriculture sectors.

Unit: II Issues in India's Land Reforms

Agriculture Development in India - Subdivision and Fragmentation of holdings in India and causes - Land Tenure and Land Reforms.

Unit: III Green Revolution and Price Mechanism in India

Productivity in Agriculture - New Agriculture Strategy - Green Revolution - Agriculture price policy in India - Public Distribution system.

Unit: IV Agricultural Credit

Rural Indebtedness - Causes of Rural Indebtedness - Sources of Agricultural Finance.

Unit: V Agricultural Market

Market and Marketed Surplus - Defects in marketing Agricultural produce - Regulated

markets - Co-operative marketing.

References:

1.Misra and Puri, Indian Economy, Himalaya Publishing House Bombay.

2.Ruddar Dutt and K P M Sundaram Indian Economy, S. Chand & Co. Ltd, New Delhi.

3.Bansil.B.C. Agricultural Problems of India, Vikas Publishing House. Pvt. Ltd., New Delhi.

4.Sankaran.S Agricultural Economy of India, Progressive Corporation. Pvt. Ltd., Bombay.

5.Srivastava.O.S. Agricultural Economics, Rawat Publications, Jaipur, 1996.

Course Outcome:

1.The students will be able to understand the structure of the agricultural sector of the Indian economy.

2. The students will be able to understand role and impact of institutional support to agricultural sector.

3. The students will be able to be able to demonstrate an awareness of various agricultural market structures.

4. The students will be able to understand the marketing of agricultural products.

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