

**PUNYASHLOK AHILYADEVJI HOLKAR
SOLAPUR UNIVERSITY, SOLAPUR**



**FACULTY OF HUMANITIES
M. A. ECONOMICS PART-I
FOR UNIVERSITY CAMPUS
CHOICE BASED CREDIT SYSTEM
(CBCS)**

W.E.F. JUNE 2020-21

M.A.PART-I(ECONOMICS)
M.A.PART-I(SEM I AND II)ECONOMICS W.E.F.2020-21

Sem	Code	Title of the Paper	Semester Exam			L	T	P	Credits
			Theory	IA	Total				
First									
Economics		Hard Core Papers							
HCT	1.1	Micro Economic Analysis	80	20	100	4	0	0	4
HCT	1.2	Quantitative Techniques for Economics	80	20	100	4	0	0	4
HCT	1.3	Agricultural Economics	80	20	100	4	0	0	4
		Soft Core /Elective Paper (Any One)							
SCT	1.1	Agri □ Business	80	20	100	4	0	0	4
SCT	1.2	Demography	80	20	100	4	0	0	4
		Practical/Field Work							
HCP	1.1	Practical Work – QTE □ I	80	20	100	0	0	4	4
SCP	1.2	Practical/ Field Work □ Applications	80	20	100	0	0	4	4
	1	Tutorial	00	25	25	0	1	0	1
		Total	420	205	625	16	1	8	25
Second									
Economics		Hard Core Papers							
HCT	2.1	Macro Economic Analysis	80	20	100	4	0	0	4
HCT	2.2	Econometrics	80	20	100	4	0	0	4
		Soft Core /Elective Paper (Any One)							
SCT	2.1	Computer Applications in Economics	80	20	100	4	0	0	4
SCT	2.2	Economics of Environment	80	20	100	4	0	0	4
		Open Elective (Any One)							
OET	2.1	Indian Economy	80	20	100	4	0	0	4
OET	2.2	Financial Markets and Institutions	80	20	100	4	0	0	4
		Practical/Field Work							
HCP	2.1	Practical Work – QTE □ II	80	20	100	0	0	4	4
SCP	2.2	Practical/ Field Work □ Applications	80	20	100	0	0	4	4
	1	Tutorial	00	25	25	0	1	0	1
		Total	420	205	625	16	1	8	25

L=Lecture, T=Tutorials, P=Practical/Field Work

4 Credits of Theory = 4 Hours of Teaching Per Week

- Total Marks of the Course : 2500 Marks
- Distribution of Marks
 - Theory Examination (Each Paper) : 80 Marks
 - Internal Examination (Each Paper) : 20 Marks
 - (Theory Examination will be of 70 marks of 2.30 hours)
- Distribution of Internal Marks: : 20 Marks
 1. Written Test 1 : 10 Marks
 2. Written Test 2 : 10 Marks
 3. Seminar/Presentation : 10 Marks
- Standard of Passing: : 40 % Marks
 - Theory Examination : 32 out of 80 Marks
 - Internal Examination : 08 out of 20 Marks
- Workload:
 - Teaching/Practical Workload : 04 Hours Per Paper/ Practical/Field Work

**NATURE OF QUESTION PAPER AND SCHEME OF MARKING
M.A. (ECONOMICS) SEMESTER-I/II/III/IV**

EXAMINATION, Total Marks: 80

Duration: 2 Hours 30 Minutes

Instructions: 1) All questions are compulsory. 2) All questions carry equal marks.

Q.No.1:MultipleChoiceQuestions(2MarksEach) 16Marks

- (1)
- (2)
- (3)
- (4)
- (5)
- (6)
- (7)

Q.No.2:ShortNotes(AnyFouroutofFive) 16Marks

- (1)
- (2)
- (3)
- (4)
- (5)

Q.No.3:ShortAnswerTypeQuestions(AnyTwooutofThree) 16Marks

- (1)
- (2)
- (3)

Q.No.4:DescriptiveTypeQuestionswithinternalchoice 16Marks

(A)

Or

(B).....

.....

Q.No.5:DescriptiveTypeQuestion. 16Marks

M. A. PART – I, SEMESTER- I**Hard Core Paper****Paper No: 1****MICRO ECONOMIC ANALYSIS****Preamble**

This paper analyses the economic behaviour of individuals, firms and markets. It is mainly concerned with the objective of equipping the students in a rigorous and comprehensive manner with the various aspects of consumer behaviour and demand analysis, production theory and behaviour of costs, the theory of traditional markets and equilibrium of firm in modern non-profit maximizing framework. The paper also deals with the micro and macro theories of distribution, welfare economics, and general equilibrium in closed and open systems and analysis of economic behaviour under uncertainty.

Unit-1.Consumer Behaviour and Demand Analysis (15Periods)

- (A) Theory of Consumer Behavior: The Cardinal Utility Theory, The Indifference Curve theory, The Revealed Preference Theory, The Consumer Surplus;
- (B) Derivation of Demand, Determinants of Demand, Elasticities of Demand;
- (C) Recent Developments in theory of Market Demand □ the Pragmatic Approach to Demand analysis;

Unit-2:TheoryofProductionandCosts (15Periods)

- (A) Production Function, Law of Production, Technological Progress and Production Function
- (B) Least cost combination of inputs; Multi □ product firm; Elasticity of substitution;
- (C) Traditional and modern theories of costs;

Unit–3:PriceandOutputDetermination (15Periods)

- (A) Perfect Competition – Meaning, Features, Short term Equilibrium, Long term Equilibrium
- (B) Monopoly □ Demand and Revenue, Equilibrium of the Monopolist (Short run and Long run), Monopolistic competition – general and Chamberlin approaches to equilibrium, equilibrium of the firm and the group
- (C) Oligopoly – Non □ collusive □ Cournot, Bertrand, Edgeworth, Chamberlin, Kinked demand curve and Stackelberg's solution

Unit-4:AlternativeTheoriesoftheFirm and Welfare (15Periods)

- (A) Critical evaluation of marginal analysis; Baumol's sales revenue maximization model; Williamson's model of managerial discretion;
- (B) Marris model of managerial enterprise; Full cost pricing rule; Bain's limit pricing theory;
- (C) Criteria of Social Welfare □ Growth of GNP, Bentham's criteria, A Cardinalist Criterion, The Pareto □ Optimality Criterion, Kaldor □ Hicks Compensation Criterion;

BASIC READING LIST

1. Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
2. Koutsoyiannis, A. (1979), Modern Microeconomics (2nd Edition), Macmillan Press, London.
3. Layard, P.R.G. and A. W. Alters (1978), Microeconomic Theory, McGraw Hill, New York.
4. Sen, A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
5. Stigler, G. (1996), Theory of Price, (4th Edition), Prentice Hall of India, New Delhi.
6. Varian, H. (2000), Microeconomic Analysis, W. W. Norton, New York.
7. Mishan, E.J. (1969), Welfare Economics: An Assessment, North Holland, Amsterdam.
8. Archibald, G. C. (Ed.) (1971), Theory of the firm, Penguin, Harmondsworth.
9. Arrow, K. J. and M. D. Intriligator (Eds.) (1981), Handbook of Mathematical Economics, Vol. I, North Holland, Amsterdam.
10. Bain, J. (1958), Barriers to New Competition, Harvard University Press, Harvard.
11. Baumol, W. J. (1982), Economic Theory and Operations analysis, Prentice Hall of India, New Delhi.
12. Borch, K.H. (1968), The Economics of Uncertainty, Princeton University Press, Princeton.
13. Broadway, R. W. and N. Bruce (1984), Welfare Economics, Basil Blackwell, London.
14. Bronfenbrenner, M. (1979), Income Distribution Theory, Macmillan, London.
15. Da Costa, G.C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
16. Diamond and Rothschild (Eds.) (1978), Uncertainty in Economics, Academic Press, New York.
17. Graff, J. De V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.
18. Green, H. A. G. (1971), Consumer Theory, Penguin, Harmondsworth.
19. Green, H. and V. Walsh (1975), Classical and Neo-classical Theories of General Equilibrium, Oxford University Press, London.
20. Hansen, B. (1970), A Survey of General Equilibrium Systems, McGraw Hill, New York.
21. Healthfields and Wibe (1987), An Introduction to Cost and Production Functions, Macmillan, London.
22. Henderson, J. M. and R. E. Quant (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
23. Hirshleifer, J. and A. Glazer (1997), Price Theory and Applications, Prentice Hall of India, New Delhi.
24. Quirk, J. and R. Saposnik (1968), Introduction to General Equilibrium Theory and Welfare Economics, McGraw Hill, New York.
25. Weintrub, E. R. (1974), General Equilibrium Theory, Macmillan, London.

Hard Core Paper

Paper No: 2

QUANTITATIVE TECHNIQUES FOR ECONOMICS

Preamble

The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied to understand and analyze economic problems. The emphasis of this paper is on understanding economic concepts with the help of mathematical methods rather than learning mathematics itself. Hence, in this paper a student will be initiated into various economic concepts, which are amenable to mathematical treatment. The paper also deals with simple tools and techniques, which will help a student in data collection, presentation, analysis and drawing inferences about various statistical hypotheses.

Unit–1.MeasuresofCentralTendency: (15Periods)

- A. Mean, Median and Mode in Individual, Discrete and Continuous Series
- B. Range in Individual, Discrete and Continuous Series of Data.
- C. Standard Deviation And Co-Efficient Of Variation in Individual, Discrete and Continuous Series of Data.

Unit – 2.Correlationand Regression Analysis: (15Periods)

- A. Meaning, Importance And Types Of Correlation
- B. Karl Pearson's Coefficient Of Correlation and Spearman's Rank Coefficient Of Correlation.
- C. Meaning and Importance of Regression Analysis, Regression Line X on Y and Regression Line Y on X.

Unit–3. Time Series Analysis and Growth Rate : (15Periods)

- A. Semi-Average Method And Moving Average Method For Trend Line
- B. Least Square Method
- C. Simple Growth Rate (SGR) And Compound Annual Growth Rate (CAGR)

Unit - 4.Index Numbers: (15Periods)

- A. Meaning And Importance Of Index Number
- B. Types of Index Number: Price, Quantity and Value Index Number.
- C. Laspeyre's, Paasche's, Fisher's and Marshall-Edgewarth's Index Number.

BASIC READING LIST

1. Allen, R. G. D. (1974), *Mathematical Analysis for Economists*, Macmillan Press and ELBS, London.
2. Chiang, A. C. (1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.
3. Gupta, S. C. (1993), *Fundamentals of Applied Statistics*, S. Chand & Sons., New Delhi.
4. Handry, A. T. (1999), *Operations Research*, Prentice Hall of India, New Delhi.
5. Speigal, M. R. (1992), *Theory and Problems of Statistics*, McGraw Hill Book Co., London.
6. Taha, H. A., (1997), *Operations Research: An Introduction (6th Edition)*, Prentice Hall of India Pvt. Ltd., New Delhi.
7. Yamane, Taro (1975), *Mathematics for Economists*, Prentice Hall of India, New Delhi.
8. Baumol, W. J. (1984), *Economic Theory and Operations Analysis*, Prentice Hall, Englewood Cliffs, New Jersey.
9. Monga, G. S. (1972), *Mathematics and Statistics for Economists*, Vikas Publishing House, New Delhi.
10. Vygodsky, G. S. (1971), *Mathematics Handbook (Higher Mathematics)*, Mir Publishers, Moscow.
11. Mathur, P. N. and R. Bharadwaj (Eds.) (1967), *Economic Analysis in Input-Output Research*, Input-Output Research Association of India, Pune.
12. Hadley, G. (1962), *Linear Programming*, Addison Wesley Publishing Co., Massachusetts.
13. Kothari, C. R. (1992), *An Introduction to Operations Research*, Vikas Publishing House, New Delhi.
14. Mustafi, C. K. (1992), *Operations Research: Methods and Practice*, Wiley Eastern, New Delhi.
15. Chou, Y. (1975), *Statistical Analysis*, Holt, Reinhart and Winston, New York.
16. Croxton, Crowden and Klein (1971), *Applied General Statistics*, Prentice Hall of India, New Delhi.
17. Millar, J. (1996), *Statistics for Advanced Level*, Cambridge University Press, Cambridge.
18. Nagar, A. L. and R. K. Das (1993), *Basic Statistics*, Oxford University Press, New Delhi.
19. Goon, A. M., M. K. Gupta and B. Dasgupta (1993), *Fundamentals of Statistics, Vol. 1*, The World Press Ltd., Calcutta.
20. Hogg, R. V. and A. T. Craig (1970), *Introduction to Mathematical Statistics (3rd Edition)*, Macmillan Publishing Co., New York.
21. Sukhatme, P. V. and B. V. Sukhatme (1970), *Sampling Theory of Survey with Applications*, Iowa State University Press, Ames.

Soft Core / Elective Paper

Paper No: 1

AGRICULTURAL ECONOMICS

PREAMBLE

The objective of this course is to provide a detailed treatment of issues in agricultural economics to those intending to specialize in this area. Its objective is to familiarize students to analyze the issues related with agricultural and economic development, agricultural production function, agricultural demand and supply, marketing and prices, agricultural finance, using basic micro-economic concepts.

Unit 1: Introduction to Agricultural Economics: (15 Periods)

- A. Definition, nature and scope of agricultural economics,
- B. Difference between agriculture and industry,
- C. Nature of uncertainty in agriculture,
- D. Role of agriculture in economic development.

Unit 2: Economics of Agricultural Production: (15 Periods)

- A. Production Function: law of diminishing returns □ optimum use of inputs, new technology and shift in production function.
- B. Resource Combination: factor □ factor relationship, substitute, compliments, optimum factor combination, expansion path.
- C. Product Combination: Product □ Product Relationship, optimum product combination

Unit 3: Demand for and Supply Response in Agriculture: (15 Periods)

- A. Demand for agricultural products: Different purpose of demand, factors □ affecting demand, demand for resources.
- B. Elasticity of demand: price elasticity, income elasticity and cross elasticity
- C. Supply Response in Agriculture: Agricultural supply and its peculiarities, factor's affecting agricultural supply.

Unit 4: Marketing and Prices of Agricultural Products: (15 Periods)

- A. Agricultural Marketing: Meaning, marketing functions, marketing structure, marketing channels,
- B. Major problems of agricultural marketing, measures for solving marketing problems,
- C. Agricultural Prices: Significance of agricultural prices, nature of price fluctuations: seasonal, annual, cyclical and secular

BASIC READING LIST:

1. Agriculture in Economic Development (1964), Carl Eicher and Lawrence Wit, McGraw Hill Book Company, New York
2. Bilgram, S. A. R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Christopher Ritson (1977), Agricultural Economics – Principles and Policy, Czosby Luckwood Staples, London
4. Donald J. Epp & John W. Malone (1981), Introduction to Agricultural Economics, McMillan Publishing Company, Inc. New York.
5. Government of India (1976), Report of the National Commission on Agriculture, New Delhi.
6. Ghatak, S. and K. Ingersent (1984), Agriculture and Economic Development, Select Books, New Delhi.
7. Government of India, Five Year Plans, New Delhi.
8. Harold G. Halcrow, (1981), Economic of Agriculture, McGraw Hill, International Book Company, Tokyo.
9. John W. Goodwin (1977), Agricultural Economics, Reston Publishing Company, Virginia.
10. John B. Penson, Oral Capps, C. Parr Rosson, (1999), Introduction to Agricultural Economics, Prentice Hall, New Jersey.
11. Martin Upton, (1976), Agriculture, Production Economics and Resource – Use, Oxford University Press, London
12. Meier, G.M. (1995), Leading Issues in Economic Development, Oxford University Press, New Delhi.
13. Peter Robb (ed), (1996), Meanings of Agriculture, Oxford University Press, Delhi.
14. Raj, K. N. et. al. (1988), Essays in Commercialization of Indian Agriculture, Oxford University Press, New Delhi.
15. Thamarajakshi, R. (1994), Intersectoral Relationship in a Developing Economy, Academic Foundation, Delhi.
16. Papola, T. S. (1982), rural Industrialization in India, Himalaya Publishing House, Bombay.
17. Sadhu A. N. & Singh Amarjit, Fundamentals of Agricultural Economics, (1996), Himalaya Publishing House, Bombay.
18. Soni, R. N. (1995), Leading Issues in Agricultural Economics, Arihant Press, Jalandhar.
19. Wanmali, S. and C. Ramasamy (Eds.) (1995), Developing Rural Infrastructure, Macmillan, New Delhi.
20. Vaidhanathan, A. (1995), The Indian Economy: Crisis, Response and Prospects, Orient Longmans, New Delhi.

Soft Core / Elective Paper

Paper No:1

AGRI-BUSINESS

Preamble:

The purpose of this paper is to enable students to have an understanding various issues of agribusiness so that they would be able to comprehend and critically appraise current problem associated with agri-business in India.

Unit1:IntroductionofAgricultureandAgri-business (15Periods)

- A. Nature ofAgriculture,
- B. Meaning, Nature and scope ofagri □business,
- C. Difference between farm and non □farmsector,

Unit2:AgriculturalTechnologyandIrrigation: (15Periods)

- A. GreenRevolution–
- B. White Revolution (Dairy)–
- C. Blue Revolution(Fisheries) □
- D. Use of Biotechnology and MechanicalTechnology
- E. Sources of Irrigation – Progress of Irrigation inIndia

Unit3:AgriculturalMarketingandPrices: (15Periods)

- A. Regulated Marketing–
- B. Co □operatives Marketing–
- C. International Trade of Agricultural Produce–
- D. WTO andAgriculture.
- E. Agricultural Price Policy: itsobjectives,
- F. Price and Income Stabilizationmeasures,
- G. Minimum Support Price,CACP
- H. Terms of Trade between Agriculture and Non □agriculturalsector.

Unit4:AgriculturalFinanceandAgro-industries (15Periods)

- A. SourceofAgriculturalFinance–InstitutionalSystemofAgriculturalFinance.
- B. NABARD and Co □operative Credit for AgricultureSector.
- C. Agro □industries: Role of Agro □industries in ruralarea,
- D. Problemsofruralindustry,measuresfordevelopmentofruralindustry
- E. Agro □ processing industries inIndia:

(a) Sugar Industries

(b) Textile Industries

BASIC READING LIST:

1. Agriculture in Economic Development (1964), Carl Eicher and Lawrence Wit, McGraw Hill Book Company, New York
2. Bilgram, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.
3. Christopher Ritson (1977), Agricultural Economics – Principles and Policy, Czosby Luckwood Staples, London
4. Donald J. Epp & John W. Malone (1981), Introduction to Agricultural Economics, McMillan Publishing Company, Inc. New York.
5. Government of India (1976), Report of the National Commission on Agriculture, New Delhi.
6. Ghatak, S. and K. Ingersent (1984), Agriculture and Economic Development, Selectbooks, New Delhi.
7. Government of India, Five Year Plans, New Delhi.
8. Harold G. Halcrow, (1981), Economic of Agriculture, McGraw Hill, International Book Company, Tokyo.
9. John W. Goodwin (1977), Agricultural Economics, Reston Publishing Company, Virginia.
10. John B. Penson, Oral Capps, C. Parr Rosson, (1999), Introduction to Agricultural Economics, Prentice Hall, New Jersey.
11. Martin Upton, (1976), Agriculture, Production Economics and Resource – Use, Oxford University Press, London
12. Meier, G. M. (1995), Leading Issues in Economic Development, Oxford University Press, New Delhi.
13. Peter Robb (ed), (1996), Meanings of Agriculture, Oxford University Press, Delhi.
14. Raj, K. N. et. al. (1988), Essays in Commercialization of Indian Agriculture, Oxford University Press, New Delhi.
15. Thamarajakshi, R. (1994), Intersectoral Relationship in a Developing Economy, Academic Foundation, Delhi.
16. Papola, T.S. (1982), Rural Industrialization in India, Himalaya Publishing House, Bombay.
17. Sadhu A. N. & Singh Amarjit, Fundamentals of Agricultural Economics, (1996), Himalaya Publishing House, Bombay.
18. Soni, R.N. (1995), Leading Issues in Agricultural Economics, Arihant Press, Jalandhar.
19. Wanmali, S. and C. Ramasamy (Eds.) (1995), Developing Rural Infrastructure, Macmillan, New Delhi.
20. Vaidhanathan, A. (1995), The Indian Economy: Crisis, Response and Prospects, Orient Longmans, New Delhi.

Soft Core / Elective Paper**Paper No:2****DEMOGRAPHY****Unit1: Theories of Population and Population size and Growth: (15 Periods)**

- A. Pre-Malthusian, Malthusian and Post-Malthusian theories,
- B. Optimum population, Demographic transition,
- C. Trends in population in the world during the last fifty years, variations in the growth rates of population.

Unit2: Sex and Age Structure: (15 Periods)

- A. Determinants of sex and age structure,
- B. Demographic effect of sex and age structure, economic and
- C. Social implications of sex and age structure.

Unit3: Fertility, Nuptiality and Mortality: (15 Periods)

- A. Estimation of fertility rates, factors affecting fertility rates,
- B. Marital status, change in age pattern of marriage,
- C. Estimation and determinants of mortality rates, foetal and infant mortality.

Unit4: Migration and Urbanization and Population Policy: (15 Periods)

- A. Kinds of migration, determinants and consequences of migration with reference to India,
- B. Growth of urban population, factors affecting urbanization, trends in urbanization in India.
- C. Population policy and programmes in India, Policies for fertility regulation and family welfare programmes.

BASIC READING LIST:

1. Srinivasan K., Regulation of Reproduction in India, Population.
2. Rodgers, G., Population Growth and Poverty in Rural South Asia.
3. Agrawal, S.N. India's Population Problems.
4. Styrock, H., Population, Poverty and Employments : Methods and Materials of Demography.
5. David, K., World Urbanization, Vol. II, University of California.
6. UND, Human Development Report
7. United Nation: The Determinants and Consequences of Population.
8. Row B. Sheela, Women Consciousness, Maris World, Penguin, Harmondsworth.
9. Boserup : Women's Role in Economic Development, George Allen and Urwin London, 1970.
10. UNESCO: Women Studies and Social Scientists in Asia, Bangkok.
11. Ashok Mitra : Implications of Declining Sex Ratio in India's Population, ICSSR, New Delhi, 1979.
12. Nanda R. : Indian Women, : From Pardah to Modernity, Vikas, New Delhi, 1976.
13. Mujumdar, Vina : Symbols of Power : Studies on the Political Status of Women in India, Allied, New Delhi.
14. Mitra, Ashok : The Status of Women Literacy and Employment, Allied Publication, Bombay, 1979.
15. Amseden A.H. (Ed.) : The Economic of Women and Work, Penguin, Harmondsworth.
16. Engles, F., : Women's Participation in the Economic Activity of Asian Countries, ILO Document DPW/10.
17. Redciff N. and E. Mingione (Ed.) : Beyond Employment : Household, Gender, Subsistence Basil Backwell Oxford UK, 1985.
18. Nancy Birdsall and Richarch Sabof : Unfair Advantage : Labour Market discrimination in developing countries.
19. Lloyd, C.B., Andrews, E.S. and Gilroy, C.L. : Women in the Labour Market, Colombia University Press, New York, 1979.

Paper No: 1**Total Marks: 100**

(Report Writing = 80 Marks and
Written and Oral Examination: 20 Marks)
Teaching/Practical Workload: 4 Hours Per Week

Quantitative Techniques : Problems And Solutions**Unit-1. Problemson Measuresof CentralTendency: (15Periods)**

Mean □ Individual, Discrete and Continuous Series

Median □ Individual, Discrete and Continuous Series

Mode □ Individual, Discrete and Continuous Series

Unit-2. Problemson Regression and Correlation: (15Periods)

Meaning, Importance And Types Of Correlation

Karl Pearson's Coefficient Of Correlation and Spearman's Rank Coefficient Of Correlation.

Meaning and Importance of Regression Analysis, Regression Line X on Y and Regression Line Y on X.

Unit-3. Problemson Time Series and Growth Rate : (15Periods)

Semi-Average Method And Moving Average Method For Trend Line

Least Square Method

Simple Growth Rate (SGR) And Compound Annual Growth Rate (CAGR)

Unit-4. Problemson Index Numbers: (15Periods)

Types of Index Number: Price,

Quantity and Value Index Number.

Laspeyre's, Paasche's, Fisher's

Marshall-Edgewarth's

Index

Number

Paper No: 2**Total Marks: 100**

(Report Writing = 80 Marks and

WrittenandOralExamination:20Marks)

Teaching/Practical Workload: 4 Hours Per Week

Application of Concept/Theory/Issues - I

The Student shall produce the report for assessment on any Ten points of following information before the University Theory examination.

Unit1:Demand,Production,CostsandMarket (15Periods)

Application of Theory of Demand

Application of Elasticity of Demand

Application of Theory of Production and Costs

ApplicationofMonopolyandMonopolisticcompetition

Unit2:IssuesinAgriculturalEconomics (15Periods)

Issue of uncertainty in agriculture

Application of agricultural production function

ApplicationofElasticityofDemandinAgriculture

Unit3:IssuesinAgri-Business (15Periods)

Impact of Irrigation

Issues of Agricultural Marketing and

IssuesinPricesofAgriculturalProducts

Issues in agriculturalsector

Unit4:IssuesinDemograpgy (15Periods)

Factors affecting fertility rates,

ChildMarriageandchangeinagepatternofmarriage, Issue
of infantmortality

Issue of growth of urban population

M. A. PART – I, SEMESTER- II

Hard Core Papers

Paper No: 1

MACRO ECONOMIC ANALYSIS

Preamble

Macroeconomics or aggregative economics analyses and establishes the functional relationship between the large aggregates. The aggregate analysis has assumed such a great significance in recent times that a prior understanding of macroeconomic theoretical structure is considered essential for the proper comprehension of the different issues and policies. Macroeconomics now is not only a scientific method of analysis; but also a body of empirical economic knowledge. The paper entitled "Macro Economic Analysis" equips the students at the postgraduate level to understand systemic facts and latest theoretical developments for empirical analysis.

Unit-1: National Income and Accounts: (15 Periods)

- (A) Circular Flow of Income in two–three and four sector economy;
- (B) Different forms of national income accounting – social accounting, input–output accounting,
- (C) Flow of funds accounting and balance of payments accounting.

Unit-2: Neo-classical, Keynesian synthesis and New Classical Macro economics (15 Periods)

- (A) Neo–classical and Keynesian views on interest; The IS–LM model;
- (B) Extension of IS–LM model with government sector; Relative effectiveness of monetary and fiscal policies;.
- (C) Extension of IS–LM models with labour market and flexible prices

Unit-3: Post-Keynesian Demand for Money: (15 Periods)

- (A) Post–Keynesian approaches to demand for money – Patinkin and the Real Balance Effect,
- (B) Approaches to Baumol and Tobin;;
- (C) Friedman and the modern quantity theory

Unit-4. Theory of Inflation and Business Cycles: (15 Periods)

- (A) Classical, Keynesian and Monetarist approaches to inflation; Structuralist theory of inflation; Phillips curve analysis – Short run and long run Phillips curve;
- (B) Adaptive expectations and rational expectations; Policies to control inflation;
- (C) Theories of Samuelson and Hicks, Goodwin's model; Control of business cycles

BASIC READING LIST

- 1) Ackley, G. (1978), *Macroeconomics: Theory and Policy*, Macmillan, New York.
- 2) Blackhouse, R. and A. Salansi (Eds.) (2000), *Macroeconomics and the Real World* (2 Vols.), Oxford University Press, London.
- 3) Branson, W. a. (1989), *Macroeconomic Theory and Policy*, (3rd Edition), Harper and Row, New York.
- 4) Dornbusch, R. and F. Stanley (1997), *Macroeconomics*, McGraw Hill, Inc., New York.
- 5) Hall, R. E. and J. B. Taylor (1986), *Macroeconomics*, W. W. Norton, New York.
- 6) Heijdra, B. J. and V. Frederick (2001), *Foundations of Modern Macroeconomics*, Oxford University Press, New Delhi.
- 7) Jha, R. (1991), *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
- 8) Romer, D. L. (1996), *Advanced Macroeconomics*, McGraw Hill Company Ltd., New York.
- 9) Scarfe, B. L. (1977), *Cycles, Growth and Inflation*, McGraw Hill, New York.
- 10) Shapiro, E. (1996), *Macroeconomic Analysis*, Galgotia Publications, New Delhi.
- 11) Edey, M. and A. T. Peacock (1967), *National Income and Social Accounts*, Hutchinson University Library, London.
- 12) Powelson, J. P. (1960), *National Income and Flow of Funds Analysis*, McGraw Hill, New York.
- 13) Rao, V. K. R. V. (1983), *India's National Income: 1950 to 1980*, Sage Publications, New Delhi.
- 14) Ruggles, R. and N. Ruggles (1956), *National Income Accounts and Income Analysis*, McGraw Hill, New York.
- 15) United Nations (1974), *Year Book of National Account Statistics*.
- 16) Duesenberry, J. S. (1949), *Income, Saving and the Theory of consumer Behaviour*, Harvard University Press, Harvard.
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- 20) Culbertson, J. M. (1968), *Macroeconomic Theory and Stabilization Policy*, McGraw Hill, Kogenkosh, Tokyo.
- 21) Levacic, R. and A. Rebman (1986), *Macroeconomics: An Introduction to Keynesian and Neo-classical Controversies*, Macmillan, London.
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- 23) Rakshit, M. (1998), *Studies in the Macroeconomics of Developing Countries*, Oxford University Press, New Delhi.
- 24) Jha, R. (1999), *Contemporary Macroeconomic Theory and Policy*, New Age International (P) Ltd., New Delhi.
- 25) Patinkin, D. (1965), *Money, Interest and Prices*, Harper and Row, New York.
- 26) Gordon, R. and S. G. Harris (1998), *Macroeconomics*, Addison Wesley, Massachusetts.
- 27) Mankiw, N. G. and D. Romer (Eds.) (1991), *New Keynesian Economics*, (2 Vols.) MIT Press, Cambridge.
- 28) Frisch, H. (1983), *Theories of Inflation*, Cambridge University Press, Cambridge.
- 29) Hagger, A. J. (1977), *Inflation: Theory and Policy*, Macmillan, London.
- 30) Hudson, J. (1982), *Inflation: A Theoretical Survey and Synthesis*, George Allen and Unwin, London.
- 31) Sheffrin, S. M. (1996), *Rational Expectations*, Cambridge University Press, Cambridge.

Hard Core Papers**Paper No: 2****ECONOMETRICS****Unit- 1.Nature and scope of Econometrics (15Periods)**

- A. Concept of Econometrics,
- B. Scope of Econometrics.
- C. Methodologies Involved in the Econometrics.
- D. Two Branches of Econometrics: Theoretical and Applied Econometrics

Unit- 2.Probability and Statistics: (15Periods)

- A. Probability and Probability Distributions.
- B. Concept of Expectation and Moments.
- C. Basic Concept of Statistical Inference
- D. Concept of General Linear Model (GLM) and its Application.
- E. Concept of Least Square Estimation.

Unit-3.Probability Distributions and Statistical Inference: (15 Periods)

- A. Normal distribution, chi-sq, t- and F-distributions.
- B. Estimation of parameters.
- C. Defining statistical hypotheses.
- D. Testing of hypotheses.
- E. Type-I and Type-II errors in the Hypothesis Testing.
- F. Tests for comparing parameters from two samples. (t- test , F- test), Confidence Interval.

Unit-4.Simple Linear Regression Model and Multiple Linear Regression Model: (15 Periods)

- A. Simple Linear Regression and its Application.
- B. Estimation of model Parameters by method of ordinary least squares(OLS), Properties of estimators obtained using OLS method.
- C. Goodness of fit of the Regression model.
- D. Testing of Hypotheses of the model Parameters.
- E. Scaling and units of measurement, Confidence intervals for the model Parameters.
- F. Forecasting in Linear Regression and its Application to the economics.
- G. Multiple Linear Regression and its Application.
- H. Estimation of parameters using OLS method, Properties of OLS estimators.
- I. Goodness of fit- R² and Adjusted R²
- J. Testing Hypotheses: Individual and Joint.

BASIC READING LIST

1. Allen, R. G. D. (1974), *Mathematical Analysis for Economists*, Macmillan Press and ELBS, London.
2. Chiang, A. C. (1986), *Fundamental Methods of Mathematical Economics*, McGraw Hill, New York.
3. Gupta, S. C. (1993), *Fundamentals of Applied Statistics*, S. Chand & Sons., New Delhi.
4. Handry, A. T. (1999), *Operations Research*, Prentice Hall of India, New Delhi.
5. Speigal, M. R. (1992), *Theory and Problems of Statistics*, McGraw Hill Book Co., London.
6. Taha, H. A., (1997), *Operations Research: An Introduction (6th Edition)*, Prentice Hall of India Pvt. Ltd., New Delhi.
7. Yamane, Taro (1975), *Mathematics for Economists*, Prentice Hall of India, New Delhi.
8. Baumol, W. J. (1984), *Economic Theory and Operations Analysis*, Prentice Hall, Englewood Cliffs, New Jersey.
9. Monga, G. S. (1972), *Mathematics and Statistics for Economists*, Vikas Publishing House, New Delhi.
10. Vygotsky, G. S. (1971), *Mathematics Handbook (Higher Mathematics)*, Mir Publishers, Moscow.
11. Mathur, P. N. and R. Bharadwaj (Eds.) (1967), *Economic Analysis in Input-Output Research*, Input-Output Research Association of India, Pune.
12. Hadley, G. (1962), *Linear Programming*, Addison Wesley Publishing Co., Massachusetts.
13. Kothari, C. R. (1992), *An Introduction to Operations Research*, Vikas Publishing House, New Delhi.
14. Mustafi, C. K. (1992), *Operations Research: Methods and Practice*, Wiley Eastern, New Delhi.
15. Chou, Y. (1975), *Statistical Analysis*, Holt, Reinhart and Winston, New York.
16. Croxton, Crowden and Klein (1971), *Applied General Statistics*, Prentice Hall of India, New Delhi.
17. Millar, J. (1996), *Statistics for Advanced Level*, Cambridge University Press, Cambridge.
18. Nagar, A. L. and R. K. Das (1993), *Basic Statistics*, Oxford University Press, New Delhi.
19. Goon, A. M., M. K. Gupta and B. Dasgupta (1993), *Fundamentals of Statistics, Vol. 1*, The World Press Ltd., Calcutta.
20. Hogg, R. V. and A. T. Craig (1970), *Introduction to Mathematical Statistics (3rd Edition)*, Macmillan Publishing Co., New York.

Soft Core/ Elective Paper

Paper No: 1

COMPUTER APPLICATIONS IN ECONOMICS

Preamble

Economics being an empirical science, computers have emerged as the pivotal instruments of economic analysis, research and forecasting. Therefore, the students must be equipped with skills and tools based on computers, which, this course shall provide to them. This will not only enhance their employability but also prepare them for the challenges of the future.

Unit-1. Introduction to Computer and Microsoft Excel: (15 Periods)

- A. Basic components of computer
- B. Input Devices,
- C. Output Devices,
- D. Excel Main Menu,
- E. Worksheet structure,

Unit-2. Descriptive Statistics, Correlation and Regression: (15 Periods)

- A. Arithmetic Mean, Median, Mode,
- B. Range, Standard Deviation and Coefficient of Variation
- C. Karl Pearson's Coefficient of Correlation
- D. Regression Equations of Y on X and X on Y

Unit-3. Time Series Analysis and Growth Rates (15 Periods)

- A. Time Series Analysis: Semi-average Method, Moving Average Method
- B. Method of Least Square fitting a straight line trend.
- C. Growth Rates: Simple Growth Rate, Compound Growth Rate

Unit-4. Graphical Presentation of Data: (15 Periods)

- A. Line Graph: Simple Line Graph, Multiple Line Graph
- B. Bar Diagram: Simple Line Graph, Multiple Line Graph
- C. Pie Chart, Histogram and Ogive Curve

PRACTICAL COURSE

Practical Examination (30 Marks)

- 1) Practical examination will be conducted before the commencement of the theory examination.

- 2) Practical examination shall be of 1 hour duration carrying **30 marks**. Five/Six Statistical Problems shall be set for the practical examination.
- 3) To pass in the practical examination the student shall have to get minimum 40 percent out of a total of 30 marks (that is, 12 marks out of 30).

Theory Examination (70 Marks)

Theory Examination will be of 70 marks of 2 hours 30 Minutes.

Teaching Workload	: 04 Hours
Practical Workload	: 04 Hours (for each batch)
Minimum Passing:	: 28 out of 70 : Theory Examination 12 out of 30 : Practical Examination

BASIC READING LIST :

- 1) Elhance, D. N. (1962), Fundamentals of Statistics, Kitab Mahal, Allahabad.
- 2) Gupta, S. C. (1981), Fundamentals of Statistics, Himalaya Publishing House, Bombay.
- 3) Gupta, S. C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons., New Delhi.
- 4) Handry, A. T. (1999), Operations Research, Prentice Hall of India, New Delhi.
- 5) Kothari, C. R. (1992), An Introduction to Operations Research, Vikas Publishing House, New Delhi.
- 6) Mathur, P. N. and R. Bharadwaj (Eds.) (1967), Economic Analysis in Input-Output Research, Input-Output Research Association of India, Pune.
- 7) Monga, G. S. (1972), Mathematics and Statistics for Economists, Vikas Publishing House, New Delhi.
- 8) N. M. Downie and R. W. Heath (1970), Basic Statistical Methods, Harper and Row, New York.
- 9) Rajaram, V. (1996), Fundamentals of Computers, Prentice Hall of India, New Delhi.
- 10) Sanders, D. H. (1988), Computer Today, McGraw Hill, New York.
- 11) Sinha, P. K. (1992), Computer Fundamentals, BPB Publications, New Delhi.
- 12) Speigal, M. R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
- 13) Taha, H. A., (1997), Operations Research: An Introduction (6th Edition), Prentice Hall of India Pvt. Ltd., New Delhi.
- 14) Yamane, Taro (1973), Statistics, An Introductory Analysis, Harper and Row (India) and John Weatherhill Inc., Tokyo.

Soft Core/ Elective Paper

Paper No: 2

ECONOMICS OF ENVIRONMENT

Preamble

Due to the speedy growth of industries and population there is an increasing demand for the environmental resources. The free goods in the nature have now become the priced goods in the economy. The various types of pollutions have created the problems to the human beings as well as the biosphere. This paper highlights the causes of pollution, its economic impacts and the role of government, NGOs, in environment protection.

Unit-1:NatureandSignificanceofEconomicsofEnvironment: (15Periods)

- (A) Economic development and environmental problems – Depletion of common property resources and its impact–
- (B) Eco□systems □ Loss ofbio□diversity
- (C) Sustainabledevelopment.

Unit-2:IndustrialDevelopmentandEnvironmentalProblems (15Periods)

- (A) Water pollution – Air Pollution – Noise Pollution□
- (B) Depletion of ozone layer –Green House Effects–
- (C) Limits to growththeory.

Unit-3:AgriculturalDevelopmentandEnvironmentalProblems: (15Periods)

- (A) Technologicalchangesinagricultureanditsimpactonenvironment–Excessuse of water, fertilizers and pesticides–
- (B) Concept of naturalfarming
- (C) Causesofforestdepletionanditsimpact–Significanceofsocialforestry.

Unit-4:EnvironmentprotectionandEnvironmentalPolicy: (15Periods)

- (A) Role of public, private and co□operative sectors in environment protection – WWF and ChipcoMovement.
- (B) Cost benefit analysis and environment – Environment impact assessment Environmental audit.Economics of recycling – Types of energy – Energy production from waste – Pollution tax–
- (C) India'senvironmentalPolicy–EnvironmentalProtectionLawsinIndia,Pollution Control Boards and TheirFunctions.

BASIC READING LIST

- 1) Baumol, W. J. & W. E. (1997), The Theory of Environmental Policy, Prentice Hall, Englewood Cliffs.
- 2) Bhardwaj, R. (1983), Managing Limits to Growth, Asian and Pacific Development Centre, Kuala Lumpur.
- 3) Dorfman, R. & N. Dorfman (Eds.) (1977), Economics of the Environment, W. W. Norton, New York.
- 4) Nijkamp, P. (Ed.) (1976), Environmental Economics, Vol. I & II, Martinus Nijhoff, Leiden.
- 5) Charles Peering (1987), Economy and Environment Cambridge University Press, New York.
- 6) Ali, S. A. (1979), Resources for Future Economic Growth, Vikas Publishing House, New Delhi.
- 7) Rathore, M. S. (Ed.) (1996), Environmental and Development, Rawat Publications, Jaipur.
- 8) Garge, M. R. (Ed.) (1996), Environmental Pollution and Protection, Deep and Deep Publications, New Delhi.
- 9) Lodha, S. L. (Ed.) (1991), Economics of Environment, RBSA Publishers, Jaipur.
- 10) Rajlakshmi N. and Dhulasi B. (1994), Environomics, Allied Publishers Ltd., New Delhi.
- 11) Singh, G. N. (Ed.) (1991), Environmental Economics, Mittal Publications, New Delhi.
- 12) Mehta, C. S. (1994), Environment and Law, RBSA Publishers, New Delhi.
- 13) Karpagam, M. (1993), Environmental Economics, Sterling Publishers, New Delhi.
- 14) World Bank Report on Human Development.
- 15) The Hindu Survey of Environment: Annual Reports.
- 16) R. N. Bhattacharya (2006), Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
- 17) Ulaganathan, Sankar (2006), Environmental Economics, Oxford University Press, New Delhi.
- 18) Hanley, Shogren and White (2004), Environmental Economics in Theory and Practice, McMillan India Limited, Delhi.

Open Elective Paper

Paper No: 1

INDIAN ECONOMY

Preamble

The objective of this Paper at the postgraduate level would be to sharpen the understanding of integrated approach to the functioning aspects of the Indian economy. Such an analysis is essential because the Indian economy is a unique amalgam of alternative competing and often conflicting theories and a proper understanding of its working is imperative if the student is to comprehend the ramifications that underlie most of the observed phenomena in the Indian economic set-up

Unit-1:EconomicPlanninginIndia: (15Periods)

- A) Economic Planning □ Meaning, Objectives of Economic Planning,
- B) Planning in India □
- C) Strategy of Plan □ Strategy of First Five Year Plan to Twelfth Five Year Plan

Unit-2:AgriculturalSector: (15Periods)

- A) Green revolution, and agricultural price policy
- B) Agricultural Finance;
- C) Agricultural Marketing
- D) Public distribution system

Unit-3:IndustrialSector: (15Periods)

- A) Public Sector enterprises and their performance;
- B) Privatization and disinvestment
- C) Growth and pattern of industrialization; Small □ scale sector;

Unit-4:PublicFinancesandFinancialSectorReform: (15Periods)

- A) Fiscal federalism—Finances of central government; Finances of state governments;
- B) Financial sector reforms;
- C) Monetary policy of RBI; Money and capital markets;
- D) Working of SEBI in India.

BASIC READING LIST

1. Ahluwalia, I.J. (1985), *Industrial Growth in India*, Oxford University Press, New Delhi.
2. Ahluwalia, I.J. and I.M.D. Little (Eds.) (1999), *India's Economic Reforms and Development* (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
3. Bawa, R. s. and P. S. Raikhy (Ed.) (1997), *Structural Changes in Indian Economy*, Guru Nanak Dev University Press, Amritsar.
4. Bhagwati, J. N. and P. Desai (1970), *India: Planning for Industrialization*, Oxford University Press, London.
5. Bhargava, P. K. (1991), *India's Fiscal Crisis*, Ashish Publishing House, New Delhi.
6. Bhole, L. M. (2000), *Indian Financial System*, Ghugh Publications, Allahabad.
7. Brahmananda, P. R. and V. R. Panchmukhi (Eds.) (2001), *Development Experience in the Indian Economy: Inter-State Perspectives*, Book well, Delhi.
8. Chelliah, Raja J. (1996), *Towards Sustainable Growth – Essays in Fiscal and Financial Sector Reforms in India*, Oxford University Press, New Delhi.
9. Dandekar, V.M. (1996), *The Indian Economy, 1947-92, Vol. II*, Sage Publications, New Delhi.
10. Datta, B. (1978), *Economics of Industrialization*, The Bookland, Calcutta.
11. Dutt and Sunderam (2016), *Indian Economy, 72th Edition*, S Chand and Company, New Delhi.
12. Government of India, *Economic Survey (Annual)*, Ministry of Finance, New Delhi.
13. Gupta, S. P. (1998), *Post-Reform India: Emerging Trends* allied Publishers, New Delhi.
14. Hanumantha Rao, C.H. and H. Linnemann (Eds.) (1996), *Economic Reforms and Poverty Alleviation in India*, Sage Publications, New Delhi.
15. Jain, a. K. (1986), *Economic Planning in India*, Ashish Publishing House, New Delhi.
16. Jalan, B. (1996), *India's Economic Policy – Preparing for the Twenty First Century*, Viking, New Delhi.
17. Joshi, V. and I. M. D. Little (1999), *India: Macro Economics and Political Economy, 1964-1991*, Oxford University Press, New Delhi.
18. Machiraju, H.R. (1998), *Indian Financial System*, Vikas Publishing House Pvt., Ltd., New Delhi.
19. Mookherjee, d. (Ed.) (1997), *Indian Industry: Policies and Performance*, Oxford University Press, New Delhi.
20. Narain, D. (1988), *Studies on Indian Agriculture*, Oxford University Press, New Delhi.
21. Parikh, K. S. (1999), *India Development Report – 1999-2000*, Oxford University Press, New Delhi.
22. Rangarajan, C. (1998), *Indian Economy: Essay on Money and Finance*, UBS, New Delhi.
23. Reserve Bank of India, *Report on Currency and Finance (Annual)*
24. Reserve Bank of India, *Report on Currency and Finance, (Annual)*.
25. Sandesara, J.c. (1992), *Industrial Policy and Planning, 1947-1991: Tendencies, Interpretations and Issues*, Sage Publications, New Delhi.
26. Sen, R. K. and B. Chatterjee (2001), *Indian Economy: Agenda for 21st Century* (Essays in honour of Prof. P. R. Brahmananda), Deep & Deep Publications, New Delhi.
27. Subramanian, S. (Ed.) (1997), *Measurement of Inequality and Poverty*, Oxford University Press, Calcutta.
28. Swamy, D.s. (1994), *The Political Economy of Industrialization: from Self-reliance to Globalization*, Sage Publications, New Delhi.
29. Thirlwal, A. P. (1997), *Economic Development in the Third World*, Addison-Wesley, England.
30. United Nations Development Programme (1997), *Human Development Report*, Oxford University Press, New Delhi.
31. World Bank (2000), *India: Reducing Poverty, Accelerating Economic Development*, Oxford University Press, New Delhi.

Open Elective Paper

Paper No: 2

FINANCIAL MARKETS AND INSTITUTIONS

Preamble

The positive and significant role of financial institutions in the process of growth and development has been very well recognized in the literature and indeed has become more important during the last two decades as the financial systems of different countries have become integrated in the process of globalization. India is no exception and has taken far reaching measures since 1991 in this direction. It is, therefore, essential that the student of economics should be well conversant with the theory and practice of different financial institutions and markets to understand and analyse the interconnection between the monetary forces and real forces, their developmental role and limitations in shaping and influencing the monetary and related policies both at the national and international levels.

Unit-1. Financial System and Central Bank: (15 Periods)

- A. The structure of the financial system–
- B. Functions of the financial sector–
- C. Functions of Central Bank–
- D. The objectives of the monetary policy□
- E. Instruments of monetary policy□

Unit-2. The Commercial Banks and NBFIs (15 Periods)

- A. Commercial Bank's Credit creation and its control
- B. Development banks – Investment banking and Merchant banking;
- C. Non□bank financial institutions□ Measures taken to control their operations.

Unit-3. Financial Markets: (15 Periods)

- A. Structure of money market and capital market–
- B. Call money market, Treasury bill market,
- C. Commercial bill market, commercial paper and certificate of deposits,
- D. Government securities market–Primary and secondary market for securities;
- E. Security Exchange Board of India (SEBI)
- F. Insurance Regulatory and Development Authority (IRDA)

Unit-4. International Financial Markets: (15 Periods)

- A. Exchange Rates– Devaluation, and Depreciation–
- B. International Financial Flows:–
- C. International Liquidity–

D. World Bank and its affiliates –IDA and IFC.–

E. Asian Development Bank,

BASIC READING LIST

- 1) Bhole, L. M. (1999), Financial Institutions and Markets, Tata McGraw Hill Company Ltd., New Delhi.
- 2) Bhole, L. M. (2000), Indian Financial System, Chugh Publications, Allahabad.
- 3) Edminster, R.O. (1986), Financial Institutions, Markets and Management, McGraw Hill, New York.
- 4) Goldsmith, R. W. (1969), Financial Structure and Development, Yale, London.
- 5) Hanson, J.A. and S. Kathuria (Eds.) (1999), India: A Financial Sector for the Twenty-first Century, Oxford University Press, New Delhi.
- 6) Harker, P. T. and S. A. Zenios (2000) (Ed.), Performance of Financial Institutions, Cambridge University Press, Cambridge.
- 7) Johnson, H. J. (1993), Financial Institutions and Markets, McGraw Hill, New York.
- 8) Khan, M. Y. (1996), Indian Financial System, Tata McGraw Hill, New Delhi.
- 9) Machiraju, M. R. (1999), Indian Financial Systems, Vikas Publishing House, New Delhi.
- 10) Ohlson, J.A. (1987), The Theory of Financial Markets and Institutions, North Holland, Amsterdam.
- 11) Prasad, K.N. (2001), Development of India's Financial System, Sarao & Sons, New Delhi.
- 12) Robinson, R. I. and D. Wrightman (1981), Financial Markets, McGraw Hill, London.
- 13) Smith, P.F. (1978), Money and Financial Intermediation: The Theory and Structure of Financial System, Prentice Hall, Englewood Cliffs, New Jersey.
- 14) Bishop, P. and D. Dixon (1992), Foreign Exchange Handbook, McGraw Hill, New York.
- 15) Chandra, P. (1997), Financial Markets (4th Edition), Tata McGraw Hill, New Delhi.
- 16) Farrell, J.L. (1997), Portfolio Management, (2nd Edition), McGraw Hill, New York.
- 17) Machiraju, H.R. (1997), International Financial Markets in India, Wheeler Publishing, Allahabad.
- 18) Gupta, S. B. (1983), Monetary Economics, S. Chand & Company, New Delhi.

Paper No-1**Total Marks: 100**

(Report Writing = 80 Marks and
Written and Oral Examination: 20 Marks)
Teaching/Practical Workload: 4 Hours Per Week

Econometrics : Problems And Solutions- II**Unit-1. Problems on Probability and Statistics (15 Periods)**

- A. Probability and Probability Distributions.
- B. Expectation and Moments.
- C. Statistical Inference
- D. General Linear Model (GLM) and its Application.
- E. Least Square Estimation.

Unit – 2. Problems on Probability Distributions and Statistical Inference: (15 Periods)

- A. Normal distribution, chi-sq, t- and F-distributions.
- B. Estimation of parameters.
- C. Statistical hypotheses.
- D. Testing of hypotheses.
- E. Type-I and Type-II errors in the Hypothesis Testing.
- F. Tests for comparing parameters from two samples. (t- test , F- test).

Unit-3. Problems on Simple Linear Regression Model (15 Periods)

- A. Simple Linear Regression and its Application.
- B. Estimation of model Parameters by method of ordinary least squares (OLS), Properties of estimators obtained using OLS method.
- C. Goodness of fit of the Regression model.
- D. Testing of Hypotheses of the model Parameters.
- E. Forecasting in Linear Regression and its Application to the economics.

Unit- 4. Problems on Multiple Linear Regression Model

- A. Multiple Linear Regression and its Application.
- B. Estimation of parameters using OLS method, Properties of OLS estimators.
- C. Goodness of fit- R^2 and Adjusted R^2
- D. Testing Hypotheses: Individual and Joint.

Paper No-2**Total Marks: 100**

(Report Writing = 80 Marks and
Written and Oral Examination: 30 Marks)
Teaching/Practical Workload: 4 Hours Per Week

Application of Concept/Theory/Issues – II**(Report Based on Study Tour/ Industrial Visit/ Field Visits)**

The Student shall produce the report for assessment on any Ten points of following information before the University Theory examination.

Unit 1: Application of Price and Output Determination (15 Periods)

Application of Oligopoly
Application of Monopsony and
Application of Bilateral monopoly.
Issues in Marginal productivity

Unit 2: Indian Economy (15 Periods)

Issues in Economic Planning
Objectives of First Five Year Plan to Twelfth Five Year Plan Issues
in Public distribution system

Unit 3: Economic Reforms (15 Periods)

Issues in Public Sector enterprises and their performance;
Benefits of Privatization and disinvestment
Issues in Industrial Sector Reforms
Issues in Financial Sector Reforms

Unit 4: Issues in Transport Sector (15 Periods)

Problems in Transport Sector
Issues in Road Transport Issues
in Indian Railway Issues in
Water Transport Issues in Air
Transport