GUJARAT UNIVERSITY

SYLLABUS OF

MASTER OF PHILOSOPHY EXAMINATION

M.PHIL.

(ECONOMICS)

GUJARAT UNIVERSITY

Department of Economics

M.Phil. (Syllabus)

Compulsory

Paper-I : Advanced Economic Theory :

I. Microeconomics :

1. Concept and Measurement of utility-Rational choice under certainity and uncertainity-Introspective and Behaviouristic approaches to the theory of demand-Various concepts of Consumer's surplus and their inter-relationships-Giffen and Anti-Giffen case Minimum Lecture - 30

2. Firms, Industries and Markets-Markets Structure and its performance-Measurement of Market structure-Degree of Buyer and Seller concentration-The firm and institutional characteristics; Ownership, Control and Objectives—The theory of Growth 'of the Firm-Economics of Vertical integration, diversification and Mergers-Princing in theory and practice Mergers and other restrictive trade practice-Pricing and financial performance of Firms in Public Sector.

   —Economic Efficiency and Market Structures.

   —Marginal Analysis and its cistisms—

   Minimum Lectures : 30

II. Macroeconomics :

1. Basic Macro-economic Model
   (a) Static Macro-economic model
   (b) Comparative Static Macro Model
   (c) Dynamic Macro Model.

2. The Consumption Function :
   (1) Absolute Income Hypothesis (Keynes)
   (2) Relative Income Hypothesis (Duessenburry)
   (3) Permanent Income Hypothesis (Friedman)
   (4) Statistical Demand Models.

3. The Macro Consumption Model for Durable consumer goods.

4. Investment Demand and Acceleration Principle Samuelson-Hicks on Multiplier Acceleration Interaction.

5. Equilibrium between Money and output Market
   (a) Tracing effects of Fiscal and Monetary policies
   (b) Mundell's contribution pertaining to Fiscal-Monetary Mix.
   (c) Importance of IS-LM system in International Monetary Economics

6. The Foreign Sector :
   1. Foreign Sector in a National Economy
   2. Relation of Foreign-Sector with the national economy.

7. Government Sector its analysis in relation to Macro-models.
   1. Tax Multipliers
   2. Expenditure Multipliers.

8. Theory of Money supply, Constituent of money supply in India and Money multiplier.

9. Demand for money in Macro-economic model with emphasis on Modern development in the area.

10. Theory of Inflation :
   1. Problems of Measurement.
   2. Problems of Inflation in Dev oping and Developed economics; How far they differ.
   3. Models of Inflation theory.
   4. Phillips curve analysis. its relevance for Indian Economy, its limitations.
   5. Income policy as an instrument to combat inflation.

11. Micro-economic Approach to Macro-economic theory Minimum lectures : 60

12. Economics of Growth and Development
   (1) Economic Growth and Development
   (2) Characteristics of Underdeveloped countries
   (3) Classical Mod ls : Adam Smith, Ricondo, Mill Mars
   (4) Neo-classical Models of Economic Growth
   (5) Modern Approach : Harr d Domar, Leibenstein, Lewis, Rannis-Fei models
   (6) Balanced versus Unbalanced Growth

13. Economic Planning and Planning Models :
   Price Mechanism versus Planning, Plan Models, in the context of Indian Planning Issues relating to choice of Techniques, Sectors and regions in planning, Employment planning in the context of an underdeveloped economy. Minimum lectures : 30

14. Welfare Economics—New and Old.

15. Public V.:sus private goods controversy. The theories of Social Goods. Issues in public expenditure Analysis. The cost Benefit analysis. Issues in Taxation-basis of taxation—Income, wealth, expenditure as a basis of Taxation—Issues in the incidence theory—Role and limitation of Fiscal Policy. Minimum lectures : 30

M.Phil. Paper-III
Compulsory I : Research Methodology

I (a) Random Sampling and proposive Sampling. Simple -random sample, Stratified sampling. Problem of preparing questionnaires and personal interviews in field work.—Data processing.

(b) Graphs, Charts, Measures of Central tendencies, dispersion and Skewness —Correlation—Analysis of Variance—Index Numbers-Time Series Analysis.

II (a) Functions-Concept of Derivative Techniques of Differentiation-Partial Differentiation—Differentials—I P. Constrained Optimisation—Elements of Integration, Elementary Differential and difference Equations.

(b) Concept and Types of Determinants and Matrices -Simple matrix operations--Transpose, Cofactor Inverse of Matrix-Solution of Linear Equations.

III (*a*) Probability · Concept and Laws. Distributions—Univariate, Bivariate, Multivariate distributions Marginal Distributions—Discrete and Continuous Distributions—Bernoulli (Binomial-Posson)—Normal—(-χ^2-f Distributions.

(*b*) Sampling Distribution—Point Estimate and Internal Estimates—Level of Confidence—Theory of Statistical inference · Testing Hypothesis Type I and II errors.

(*c*) Regression Analysis—Assumptions of the model—Least square and Maximum Likelihood Estimators Properties (proofs not required , Estimation of Non—linear relations like Cobb · Douglass Function—resting Significance of Estimated Parameters— Prediction.

(*d*) Concepts of Auto Correlation, Multicollinearity Heteroscedasticity Errors in variables—logged variable models—Elementary Methods to test the presence of these econometric problems and methods to deal with them.

(*e*) Estimation of Simultaneous Equations—Structural form and Reduced Form—Concept of Identification problems.

(*f*) Limitations—Misuses of econometric Techniques and Pitfalls in its application.

IV Linear Programming

Compulsory—II

Research Methodology (Advanced level)

Time—80 lectures. For those who passed M.A. with Mathematics—Economics.

Objective :

The course is intended to provide basic understanding of various research methods in context to quantification of economic reallotions with sound discussion on statistical and theoretical problems involved in actual emperical research. it is divided into five components. The first is supposed to open up to future resoarches the nature of economic models that the might come across while examining the field of their interest. The second is intended to clarify the statistical base of the variables involved in the models along with their definitions and levels of aggregation. The third and fourth include discussion on method of estimation of single equation models and the various problems faced in actual practice. The fifth compnent involves discussion and application of input-output models. The last component is intented to discuss the project reports prepared by every single participant in the course where one may choose on applied economic problem and quantify the models involved by all the methods discussed in the course. The project must include discussion on relative performance of various methods in terms of producing relevant empirical results.

The course contents alongwith break-up of number of lectures devoted to each component is provided below :

Contents :

1. Sources of hypothesis in quantification of economic relations :

(*a*) Examples of various types of economic relations as employed in various fields of specialisation. The economic relations may include production.

Demand, investment, price and other relevent functions at micro and macro levels.

(b) Need for quantification of those models.

(c) Possible inferences descriptive as well as prescriptive, from such models.

(d) Summary of main economic relations that are quantified more frequently in actual practice.

Number of Lectures : 10.

II. Quantification of Economic Variables :

(a) Micro and macro concepts.

(b) Statistical and economic definitions of various variables.

(c) Concept of aggregation over variables to obtain macro indices in theory as well as practice in context to above mentioned economic variables.

(d) Available sources of data.

Number of Lectures : 12

III. Estimation and Forecasting :

(a) Problems of estimation and forecasting from two variable models.

(b) Problems of estimation and forecasting from many variable models.

(c) Problems of estimation and forecasting from dynamic models.

(d). Problems of estimation and forecasting from timeseries models.

Number of Lectures : 35.

IV. Some Usefull Multi-variate Methods :

(a) Factor analysis and its applications to economic problems.

(b) Discriminant analysis and its application to economic problems.

Number of Lectures : 8.

V. Input-Output Models :.

(a) Introduction to Input-output models.

(b) Possible applications.

(c) Some actual Indian applications.

Number of Lectures : 10

VI. Project Evaluations :

(a) Project may be chosen individually.

(b) Quantification of models may be done by using all relevant methods

Optional Paper-III

Public Finance

1. *Resource Scarcity* and inter-sector Resource Allocation. The contemporary discussion of Intersector Resource Allocation.

2. *Fiscal Functions* : The Allocation Function, The Distribution Function, The Stabilization function.

3. The Concept of Public Gi ... The case for a public sector to allocate resources. Cecressing cost of production. Zero Marginal cost. The Phenoaemon of collective consumption. The concept of Externalities.

4. Political Institutions and Public Sector Decision Making. The Wicksell approach to revealing social preferences. The theory of representation Democracy.

5. Expenditure Evaluation Principles Some basic concepts. Measuring Benefits and costs. Project selection.

6. *Revenue Structure* : Evaluation of Indian Tax Structure, Centre. State, Local, Major Issues in taxation at each level of Government

7. *Basis of Taxation* : Income—Consumption—Welath. Value Added Tax Directo Vs. Indirect Tax.

8. *Fiscal Federalism* in India. Economic Determinant of Fiscal Federalism. Fiscal Centralization Versus Decentralization.

9. *Resource Mobilization* from the Agricultural Sector : Raj Committee recommendations.

10. *Financial Control* in India Budgetary process in India. Working of estimate and Public Accounts Committee.

11. *The Theory of Public debt* : The Burden controversy.

   N.B.— These topics should be discussed as far as possible in relation to Indian Fiscal System.

Optional I

Mathematical Economics and Econometrics

1. Optimisation in Economics : Constrained and unconstrained. Difference equatio, and their solution upto second order.

2. Consumer Behaviour : Derivation of classical demand functions and their properties, Slutsky equation, comparison with statistical demand functions. nature and original of dynamic demand functions under different bypotueses, linear expenditure system, estimation of dynamic demand functions under different hypotheses, linear expenditure system, estimation of indifference surfaces from family budget data.

3. Theory of firm : Objectives of the firm, productivity curves, Total marginal and average cost functions in the long and short run. statistical cost functions, production functions— linear, coble Douglas, SMAC, variable elasticity of substitution, Statistical functions equilibrium under different objectives.

4. Market Equilibrium : Perfect competiti ,. imperfect competition. Static and dynamic analysis :

5. Complete System Models : Specification, some examples of systems; classification of variables, specification of general systems, normalisation and completeness, reduced form and final form; impact and total multipliers, systems, problem of identification; method of estimation OLS. indirect least squares, 2 stage least squares 3 stage least squares procedure, limited information and full information maximum likelihood methods.

6. Forecasting from complete systems.
   Some Macroeconometric models.
   Klein—Goloberger model.
   Survey of Indian Macroeconometric models.

Suggested Readings

1. Johnston : 'Econometric models'
2. Theil. H. : 'Principles of Econometrics
3. Evans M. K. : 'Macroeconomic Activity'
4. Desai, Meghanad : 'Macroeconometric models for India', A.-survey Sankhya, series 3, Vol. 35, Part-2 1973.
5. Mishra, P. N. : Forecasting and control with Applications to Deman and Sales (Forthcoming book)
6. J. S. Cramer : Empirial Econometrics.

Optional—II

Course in Agricultural Economics for M.Phil. Classes

1. Production Function—Input—Output relations in Agriculture.—Rotation of crops and its relation to productivity—Choice of crops and factors affecting them—Cost calculations in agriculture—Regional specialization of crops, choice of inputs and factor substitutability.

2. Choice of technology in Agriculture—Choice of types of farming—Peasant Farming, Collective farming, Large scale farming, & Co-operative farming,— Service co-operatives & farmers' Service Societies.

3. Economics of farm size—Returns to scale in agriculture—Farm management and efficiency in production—Economics of land reforms. Pattern of land own ship and land use—Tenancy and its impact on productive efficiency.

4. Terms of trade between agriculture and industry. Price output relationship in agriculture. Marketing efficiency in agriculture. Agencies for marketing of agricultural products. Rising prices and agricultural products.

II

5. Occupational pattern in Agriculture—Colin Clerk's view point of growth and changes in occupational pattern—State policy with regard to small—scale farms, its impact on occupational pattern & Agrarian growth.

6. Population pressure on Agriculture with reference to under—developed countries Subsistence farming and commercial farming for viable farms, units—Strategy for Agricultural growth.

7. Problem of Agriculture finance—Role of Co-operatives in Resource mobilisation, Regional Rural Banks, Commercial Banks, Problems of Competition and need for co-ordination amongst them—Integration of S.T, and L. T. financial agencies.

8. State policies for employment, generation & for removal of poverty,—evaluation of state policy—Problems of Rural development in relation to agriculture and the special agencies set up for it

Note.—The above topics based on theory should be studied with special reference to underdeveloped economics.