

# Tantia University

Sri Ganganagar

Ph.D. Course Work Syllabus (2016-17)

Economics

Maximum Marks-100

Minimum Marks-55

## PART-A

**Part A- 40 Marks**

**Total Credits = 4**

**Total Hours=4x45= 180 Hours**

### Introduction to Research

Introduction of Research, Research methodology, Defining Research problem and formulation of hypothesis, research design, sampling design, measuring and scaling techniques, methods of data collection.

Pure and Applied Research, Exploring or Formulative Research, Descriptive Research, Diagnostic Research/Study, Evaluation Research/Studies, Action Research, Experimental Research, Historical Research, Surveys, Case Study, Field Studies

Research Ethics: Characteristics and format of research paper, article, thesis writing, review of Related Literature, Purpose of the review, Identification of the related literature. Organizing the related literature.

### Statistics

Concept of statistics, relevance in research, parametric and non-parametric data; graphical representation of data: histogram, frequency polygon, ogive and pie chart; Measures of Central Tendency, Correlation, t-test chi square test

### Computer Application

Basic and fundamental knowledge of Computer and its Applications. Introduction, Application Area, Operating System, Windows, Office, Internet.

## PART-B

**Part B- 60 Marks (Subject based)**

**Total Credits = 6**

**Total Hours=6x45= 270 Hours**

### 1. ADVANCED MICRO ECONOMIC ANALYSIS :

Theory of consumer behaviour – Measurement of income effect and substitution effect. Measurement of Changes in Consumers' Welfare – Consumer's Surplus, Compensating Variation and Equivalent Variation –

Dynamic versions of demand functions –, Almost Ideal Demand System. Market Forms- perfect competition, monopoly, monopolistic competition and oligopoly. General equilibrium theory, Walrasian general equilibrium – Mathematical derivation of conditions for general equilibrium. Welfare Economics - Concepts, problems, approaches and limitations of Welfare Economics, Pareto conditions of maximum welfare – Criteria for social welfare -Social Welfare functions, Social versus Private costs and benefits.

## **2. ADVANCED MACRO ECONOMIC ANALYSIS:**

Review of Macro Economics concepts-Comparative statistics, Keynesian theory, Consumption Function and Theories of Consumption. Theories of Investment- Monetary Policy in the static model – Inflation, Stagflation and supply side economics. Theory of Unemployment – Phillips curve controversy, Fiscal policy: effectiveness and problems. General equilibrium analysis - Neo classical macro economics, Stochastic macro economics. BOP & Adjustment Policies - Foreign exchange policy, Impact of WTO on Indian Economy, Impact of IMF & IBRD on Indian Economy, Review of macro economic policies in India.

## **3. ADVANCED ECONOMETRICS**

Review of classical regression model – review of hypothesis testing , restrictions on parameters –single equation techniques. Ordinary least squares, weighted least squares, generalized least squares, method of principal components – instrumental variables method, maximum likelihood method, errors in variables, non-linearity and specification tests, non spherical error terms. Dummy variables - Qualitative and truncated dependent variables, limited dependent variables. Autoregressive distributed lag models – panel data fixed and random effects models and their extensions. Simultaneous equation methods.

## **4. ENVIRONMENTAL ECONOMICS**

Environmental pollution as a consequence of market failure - Economics of pollution, Property rights, Environment and development – Theory of environmental policy. Environmental cost benefit analysis, Economic growth and Sustainable development – Indicators of sustainable development, environmental accounting, Basic approaches to environmental policy (Tax, subsidy, pollution permits etc.), Political economy of environmental regulation and management. Economics of global warming, climate change and emission trading - Environment, international trade and development.

## **5. RESEARCH METHODOLOGY AND COMPUTER FUNDAMENTALS:**

Nature of social research, applications of research methods in economics. Sampling techniques-SRS, Stratified, Clusters, Multistage and systematic samplings. Sampling Errors. Hypothesis testing-reasons for testing hypothesis, process, Chi-square test, 'F' test and 't' test. Regression analysis-simple and multiple regression- calculation and interpretation of regression coefficients. Significance test. Recent Trends in national and international economics as published in journals General information on hardware and basic software applications e.g. Microsoft office, Adobe, photoshop.