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Eco/1/CC/01 MICROECONOMICS – I Credit 6

Objectives: The course introduces key concepts in Microeconomics
Outcome: At the end of the course, the learner will be able to understand the basic principles underlying market mechanism—how the forces of demand and supply bring equilibrium in the market for goods and services.

Module – 1: Introduction
Definition, nature and scope of economics; Methodology in economics; Basic economic problems; Basic postulates; Demand and supply-concept and determinants; Laws of demand and supply; Market equilibrium; Role of price mechanism.

Module – 2: Consumer behavior
Utility – Cardinal and Ordinal approaches; Concept of consumer’s equilibrium; Law of Equi-Marginal Utility; Concept and measurement of Elasticity of Demand-Price, Income and Cross. Indifference Curves and Budget line; Decomposition of Price Effect (Hicks and Slutsky methods); Giffen’s Paradox; Engel’s curve. Consumer’s surplus.

Module – 3: Theory of Production and Costs
Concept of production function; Isoquants, Isocost Line - Producer’s Equilibrium; Law of variable proportion and Law of returns to scale - Economies of scale. Concept of Expansion path; Different concepts of cost and their interrelation.

Module – 4: Market structure-I
Meaning, features and equilibrium (short run and long run) under Perfect competition and monopoly; Monopoly and economic efficiency; Price-discrimination; Notion of controlled and administered prices.

Module – 5: Market structure-II
Meaning, features and equilibrium (short run and long run) under Monopolistic Competition and Oligopoly (kinked demand curve); Meaning and features of Duopoly; Monopsony—meaning.

Eco/2/CC/02 MICROECONOMICS – II Credit 5

Objectives: The course introduces key concepts in Microeconomics
Outcome: The learners will understand how factor market works and the basic tools in welfare economics and trade theories.

Module – 1: Factor Pricing
Marginal Productivity theory of distribution; Theories of wage determination; Wages and collective bargaining; Wage differentials; Concept of rent – Scarcity, Differential and Quasi; Interest – Classical and Keynesian Theories; Profit – Innovation, risk and uncertainty theories.

Module – 2: Factor Market
Meaning of factor market; Firm’s demand for single and several variable factors; Determinants of firm’s demand for factor services; Bilateral monopoly and Monopsony in Factor market; Factor-market equilibrium.
Module – 3: Welfare Economics
Concept of Welfare Economics; Classical welfare economics; Pareto’s criteria; Value judgment; Concept of Social welfare function; Compensation principle—Kaldor-Hicks.

Module – 4: Investment Analysis
Payback Period; Net Present Value (NPV); Internal Rate of Return (IRR); Elements of Social cost benefit analysis

Module – 5: International Trade Theories
International Trade and Inter-regional trade; Theories of Absolute Advantage, Comparative Advantage and Opportunity Cost; Heckscher-Ohlin theory of trade—its features, assumptions and limitations; Concept of tariffs and quotas.

BASIC READING


Eco/2/OE/01 RURAL DEVELOPMENT Credit 2

Objectives: To explain various issues relating to rural development and various schemes undertaken by central government

Outcomes: Understand various approaches in rural development schemes undertaken by the Government of India. It will provide comprehensive knowledge of socio-economic factors affecting the transformation of rural society

Unit I: Rural Development in the Indian context- Concepts and Principles, Schemes

Unit II: Disaster Awareness: Concept of disaster, disaster management, Role of Central and State government

Reading Lists
Objectives: Explain the process of calculating national income and its components, its fluctuations and the various theories behind consumption, investment and other business cycles.

Outcomes: At the end of the course, the learner will be able to assess the workings of the economy and the role of investment and money.

Module – 1: National Income and Social Accounts
Concepts and measurement of National Income; Circular flow of income with closed and open economy; National income identities with government and international trade; Concept of Green Accountings.

Module – 2: Output and Employment
Say’s law of markets and the Classical theory of employment; Keynes’ objection to the classical theory; Aggregate demand and aggregate supply functions; The principle of effective demand and income determination.

Module – 3: Consumption Function
Meaning of Consumption function; Average and Marginal propensity to consume; Factors influencing consumption spending; The relationship between consumption and income, the income multiplier; Keynesian theory of absolute income; Duesenberry’s relative income hypothesis.

Module – 4: Investment and Saving
Equilibrium between investment and saving; Investment Multiplier and its effectiveness in Less Developed Countries (LDC’s); Autonomous and induced investment; Marginal Efficiency of Capital (MEC), Marginal Efficiency of Investment (MEI); Concept of present discounted value; Savings and Investment – ex-post and ex-ante equality and equilibrium.

Module – 5: Interest
Meaning of Interest; Concept of Gross and Net interest; Classical, Neo-classical and Keynesian theories of interest.

Eco/3/OE/02 ENTREPRENEURSHIP DEVELOPMENT

Objectives: To explain the role of entrepreneur in development and highlight entrepreneurship development programme and legal frameworks for establishing business units.

Outcome: Be able to understand role of government in entrepreneurship development.

Unit I: Entrepreneurship-Concepts, Roles and Functions; Entrepreneurship development programme; identification of business opportunities;

Unit II: MSMED Act, 2006, Legal requirements for establishment of a new business units; Sources of funds and venture capital. Incentives Scheme in North East India

Reading Lists
2. D.D. Mali: Entrepreneurship Development in North East, IIE.
MACROECONOMICS – II

Objectives: To explain the role of money and banking in the economy
Outcomes: At the end of the course, the learner will be able to understand fluctuations in the economy and models of economic growth

Module - 1: Money
Meaning and functions of money; High-powered money; Gresham’s law; Monetary standards, metallic and paper systems; Quantity Theory of Money, Classical and Cambridge versions, Keynesian approach.

Module - 2: Banking
Meaning, types and functions of Commercial Banks; Process of credit creation by banks; Instruments of credit control by Central Bank.

Module - 3: Trade Cycles
Meaning, nature and characteristics of trade cycle; Hawtrey’s monetary theory; Hayek’s over-investment theory; Keynes’s view on trade cycle - concept of accelerator; Control of trade cycles.

Module - 4: Inflation
Meaning of Inflation, Deflation, Reflation and Stagflation; Demand-pull inflation and Cost-push inflation; Causes and effects of inflation; Measures to control inflation; Philip’s curve.

Module - 5: Economic Growth
Meaning of economic growth and economic development; Growth Models – Harrod-Domar; Instability of equilibrium; Neo-classical growth models – Solow’s; Economic growth and technical progress.

BASIC READING

Objectives: To introduce the basic features of Indian economy
Outcomes: At the end of the course, the learner will understand the performance of Indian economy

Module - 1: Structure of the Indian Economy
Basic features; Characteristics of under-development; Role of the state; Issues of sustainable development; Natural resources – Land, water and forest resources.

Module - 2: Population and Development
Broad Demographic features – Population size and growth rates, sex composition; rural – urban migration, occupational distribution; Problem of overpopulation; Population policy; Infrastructure development; Growth and composition of national income.

Module - 3: Planning in India
Objectives; strategies; Broad achievements and failures; Current Five Year Plan—Objectives and targets; Composition and role of National Institution for Transforming India (NITI) Aayog; New Economic Reforms—Liberalization, Privatization and Globalization; Rationale behind economic reforms; Concept of Disinvestment.

Module - 4: Agriculture
Nature and importance; Trends in agricultural production and productivity; Factors determining productivity; Land reforms; New agricultural strategy and Green Revolution; Rural credit; Agricultural marketing.

Module - 5: Regional Economy
Basic features of Mizoram Economy – Agriculture, industry and service sectors; Finances – Source of revenue, growth trend of public expenditure and debt; Rural development; Land Use Policy; Forest Policy; current status of shifting cultivation.

BASIC READING

2. Dinghra I.C (2001) The Indian Economy; Environment and Policy; Sultan Chand & Sons New Delhi
3. Dutt R.C (1950) The economic History of India under early British Rule, Low Price Publication Delhi
5. Ahuwalia, I.J and IMD Little (Eds) India’s Economic Reforms and Development, Oxford University Press, New Delhi
Objectives: To introduce the role of fiscal policy in economic stabilisation, distribution and development

Outcome: The learner, at the end of the course, will be able to follow the role and significance of public expenditure, taxation and public debt in the economy

Module – 1: Nature and Scope of Public Finance
Meaning and scope of public finance; Distinction between private and public finance; Public goods vs. private goods; The principle of maximum social advantage; Market failure and Role of the government.

Module – 2: Public Expenditure
Meaning, classification and principle of public expenditure; Canons and effects of public expenditure; Trends in public expenditure and causes of growth of public expenditure in recent year

Module – 3: Taxation
Sources of public revenue; Taxation – Meaning, Canons and classification of taxes; Division of tax burden – The benefit and ability-to-pay approaches; Impact and incidence of taxes; Taxable capacity; Effects of taxation; characteristics of a good tax system; Major trends in tax revenue of the central and state governments in India

Module – 4: Public Debt
Sources of public borrowing; effects of public debt; methods of debt redemption; Growth of India’s Public dept; Intergenerational transfer of public debt.

Module – 5: Public Budget and Financial Administration
The public budget – Kinds of budget, Zero-based Budgeting; Economic and functional classification of the budget; Preparation and passing of budget in India; Lack of flexibility in Central and State budgets; Role of Finance Commission in India.

BASIC READING

Eco/5/CC/07 QUANTITATIVE TECHNIQUES – I Credit 5

Objectives: To provide basic mathematical tools for economic analysis
Outcomes: Interpret and analyse economic data using mathematical tools.

Module - 1: Basic Concepts
Variables; Sets and basic set operations; Different types of functions, different types of equations (linear and non-linear equations) and their application in economics.

Module - 2: Differential Calculus
Concept of differentiability of a function; Rules of differentiation; Higher order derivatives; Maxima and Minima; Partial derivatives; Economic applications of simple differentiation- Profit maximization, Cost minimisation, Elasticities, Inter-relationships among total, marginal and average costs and revenues.

Module - 3: Integral Calculus
Simple rules of integration; Definite integral and areas under curves; Application of integration - Consumer’s and producer’s surplus, total revenue and cost.

Module - 4: Matrices and its Operations
Types of matrices; Algebra of matrices; Determinants and its properties; Rank of a matrix; Solution of system of linear equations by matrix inversion method and Crammer’s rule.

Module - 5: Linear Programming
Concept and formulations of linear programming problems; Solution of Linear programming problem by graphical method, Concept of Dual.

BASIC READINGS:

Eco/5/CC/08A AGRICULTURE ECONOMICS Credit 5

Objectives: To explain the role and performance of agriculture in the development process
Outcomes: Be able to understand the role of agrarian relation, land reforms and technological change in agriculture development

Module - 1: Rural Economy of India
Composition of the Indian rural economy—farm sector and non-farm sector, Agriculture and allied activities (fisheries, horticulture, floriculture); Forestry in India, its growth and problems; Cattle wealth in India and dairying: Rural Industrialisation—Food processing industries and agro-based industries, development of rural infrastructure.
Module – 2 : Development of Agriculture
Role and importance of agriculture in Economic Development; Linkage between the agricultural sector and the non-agricultural sector, changing nature of linkages; Agricultural resources in India: Land utilization and cropping pattern; irrigation; Trends in agricultural growth and agricultural productivity; Pattern of agricultural development: regional variation.

Module – 3 : Agrarian Relations and Land Reforms in India
Agrarian relations: Historical evaluation and land reforms programme during 1950’s and 1960’s; Land reforms: Programme and performance during 1970’s and after.

Module – 4 : Technological Change in Agriculture
Technology in agriculture; traditional techniques and practices, HYV seeds – fertilizers, water technology (green revolution); Sustainable agriculture; Emerging trends in agricultural technology; Dry land farming, use of bio technology techniques

Module – 5 : Indian Agriculture in post- WTO
An overview of agricultural development; underemployment and unemployment in the rural economy; Globalization of Indian economy and its effects on Indian agriculture.

BASIC READINGS:

Eco/5/CC/08B INDUSTRIAL ECONOMICS Credit 5

Objectives : To explain basic concepts and issues in industrial economics
Outcome : The learners will be able to understand the role in industrial sectors in the economy

Module – 1 : Introduction
Industry and economic development; Industry and sectoral linkages; Industrial classification and data information.

Module – 2 : Industrial Organization and Ownership Structure
Public, private, joint and cooperative sectors; Private corporate sector; MNC and their role; Industrial concentration and monopoly;

Module – 3 : Location and Dispersion
Locations of industries – Theories of location; Diversification; Integration and merger of industrial units; Dispersion and problem of regional imbalance.

Module – 4 : Financing of Industry
Mode of financing – equity and debt; Institutional Finance; Bank finance
Module – 5 : Industrial Productivity
Concept and measurement of productivity – productivity in Indian industries; industrial sickness; Under utilization of capacity – factors accounting for it and consequences

BASIC READINGS:

Eco/5/CC/08C ECONOMIC DEVELOPMENT & PLANNING Credit 5

Objectives : To explain theories and approaches of economic development and role of planning;

Outcome : The learners will be able to understand the dynamic interplay of various forces in understanding the development process

Unit - 1 : Basic Concepts of Economic Development
Economic growth and economic development; Indicators of economic growth and development – GNP per capita, PQLI and HDI; Features of Underdevelopment; Factors affecting economic growth (Capital, Labour and Technology); Measurements of Development Gap; Sustainable economic development. Kuznets’s inverted U hypothesis

Unit - 2 : Theories of Economic Development
Adam Smith; Karl Marx; Schumpeter; Rostow’s stages of growth

Unit - 3 : Approaches to Economic Development
Poverty - concepts of poverty line, absolute and relative poverty; Vicious Circle of Poverty, Lewis dual sector model, Leibenstein Critical Minimum Effort theory, Big Push theory; Dualism - Social, Technological and Financial; Balanced vs Unbalanced growth theories.

Unit - 4 : Development Models and Policies
Endogenous versus exogenous growth models; The Harrod-Domar model; The Solow model; The Kaldor Model; Joan Robinson Model; Features of India’s development policies – The Nehruvian model (Controlled economy) and New Economic Policy 1991 (Liberalised economic policy).
Unit - 5: Development Planning
Concept of Economic planning; Rationale for planning; Types of Planning - Centralised and Decentralised planning, Financial and Physical planning, Perspective and Annual planning; Cost-Benefit Analysis; Shadow Prices and its uses

BASIC READINGS:

Eco/5/CC/08D MATHEMATICAL ECONOMICS-I Credit 5

Objectives: To provide basic mathematical tools for economic analysis
Outcomes: Interpret and analyse economic data using mathematical tools.

Module 1: Basic Quantitative Methods
Concept of variable, constants and parameters. Functional relationship and graph. Elementary ideas of differential and integral calculus.

Module 2: Matrices
Matrix and determinants, matrix inversion by co-factor and Gauss elimination methods. Solution of a system of simultaneous equations by matrix inversion and Cramer’s rule. Solution of quadratic equations.

Module 3: Consumer Theory
Utility function, budget line, constrained optimization, consumer’s equilibrium, income effect, substitution effects, Slutsky equation, derivation of demand curve, elasticity of demand, consumer’s surplus.

Module 4: Market Structure/Pricing
Concept of equilibrium, equilibrium of firms under perfect competition and monopoly. Price discrimination. Determination of equilibrium output and prices under Cournot and Stikeyberg Model. The basic Cobweb model.

Module 5: Theory of Production
Properties of production function- homogeneous and non-homogeneous; Cobb-Douglas, CES, Returns to scale, Euler’s theorem, choice of optimal combination of factors of production.
Objective: The course aims to provide fundamental concepts in environmental economics.
Outcome: At the end of the course, the learners will be able to understand economy-environmental linkages.

Unit-I: Introduction to Environmental Economics
Economy and environment inter-linkages; Economic Efficiency and Market Failures: Market solutions and efficiency; Problem of externalities; Public Goods – Environment as a public good; Public goods and public bads; Tragedy of Commons; Common property resources.

Unit-II: Development and Environment
Environment and Development; Environmental Kuznets's Curve; Theory of Demographic Transition; Population, Poverty and Environment; Degradation of Environment

Unit-III: Sustainable Development and Valuation of Environment.
Meaning, Objectives and Indicators of Sustainable Development; Economics of Sustainable development; Environmental Impact Assessment; Valuation of Environmental damages and benefits - direct and indirect methods; UN Millennium Development Goals

Unit-IV: Pollution Control
Types of pollution: Air, water and noise; Optimal level of pollution; Prevention and Control of Pollution in India; Soil degradation - causes, effects and controlling measures; Main features of Water (Prevention and Control of Pollution) Act 1974 and Forest Conservation Act, 1980; Central Pollution Control Board and State Pollution Control Board.

Unit-V: Global Environmental Issues
Climate Change – Implications and Mitigation; International attempts to protect the environment - Movements, Laws, Agreements; Rio Declaration and Kyoto Protocol; World Bank and the environment - Polluter pays principle; Energy Security-concept.

BASIC READINGS:
1. Environmental Education in India (2002), Association of Indian Universities, New Delhi.
Objective: Introduce quantitative methods in economics analysis
Outcome: Define and understand applications of quantitative methods

Module - 1: Introduction
Meaning, uses and importance of statistics; Concept of descriptive and inferential statistics; Methods of data collection- Sampling vrs Census; Data classification-primary data and secondary data; Data presentation-Diagrammatic and graphical presentations.

Module - 2: Central Tendency and Dispersion
Measures of central tendency: mean, median, mode, geometric mean and harmonic mean.
Measures of dispersion: range, mean deviation, standard deviation, coefficient of variation, quartile deviation, skewness and kurtosis.

Module - 3: Probability and distribution
Concept of probability- Classical, Empirical and Modern; Basic theorems of probability-addition and multiplication. Theoretical distribution - binomial, poisson and normal distribution.

Module - 4: Correlation and Regression
Correlations: Karl Pearson and Rank Correlation. Concept of partial and multiple correlation.
Regression analysis: estimation of simple regression line by OLS, interpretation of regression coefficients, concept of coefficient of determination.

Module - 5: Time series and Index Number
Time series analysis-Concept and components, determination of trend, seasonal and cyclical indices;

BASIC READING
Objectives: To introduce basic concepts in financial institutions and markets.
Outcome: Be able to understand working and performance of various segments of financial sectors.

Module – 1: Central Bank - RBI
Functions and objectives of RBI; Instruments of Credit control – quantitative and qualitative methods – Bank rate policy, open market operations, VRR and selective methods; Development and regulatory role of RBI; Objectives and limitations of monetary policy; Measures used by the RBI to control inflation.

Module – 2: Money and Commercial Banking
Functions and kinds of money; components of money supply; Functions, types and objectives of commercial banks; Liabilities and assets of banks; Process of credit creation by commercial banks, purpose and limitation.

Module – 3: Non-banking Financial Institutions
Structure of cooperative institutions and development banks in India – Their objectives, role and limitations; Definition and types of NBFI’s namely LIC, Investment Companies, Mutual funds, Venture Capital and its growth and importance; Recent measures taken by the RBI to regulate their working.

Module – 4: Financial Markets
Meaning and structure of Financial Markets – money market and capital market; Concept and functions of stock market and market for gilt-edged securities; Types of regulated and unregulated credit markets; Recent Financial Sector Reforms in India; SEBI – functions and its impact on the working of Capital Markets in India.

Module – 5: Foreign Exchange Markets
Foreign exchange; Foreign exchange market; Foreign exchange rate – concept of spot exchange rates and forward exchange rates; Determination of exchange rates under fixed and flexible exchange rate regimes; Concept of hedging in the determination of exchange rates; Eurodollar market – its role and significance.

BASIC READINGS:
Objective: Provide the learners an overview of the history of economic thought
Outcome: The learner will appreciate the historical background of various economic thoughts

Module 1: Early Period
Economic thought of Plato and Aristotle – Doctrines of just cost and just price –
Mercantilism: main characteristics; Thomas Munt – Physiocracy: natural order,
primacy of agriculture, social classes, Tableau Economique, taxation, Turgot –
Economic ideas of Petty, Locke and Hume

Module 2: Classical Period
Adam Smith – Division of labour, theory of value, capital accumulation,
distribution, views on trade, economic progress; David Ricardo – value, theory
of rent, distribution, ideas on economic development and international trade;
Thomas R. Malthus – theory of population, theory of gluts.

Module 3: Marginalists
The precursors of marginalism – Cournot, Thunen, Gossen – The marginalist
revolution; Jevons, Walras and Menger – bohm-Bawerk, Wicksell and fisher: the
rate of interest – Wicksteed and Weiser; Distribution – Marshall as a great
synthesizer; role of time in price determination, economic methods, ideas on
consumer’s surplus, elasticities, prime and supplementary costs, representative
firm, external and internal economies, quasi-rent, organization as factor of
production, nature of profits.

Module 4: Keynesian Ideas
The aggregate economy, Liquidity Preference Theory and Liquidity trap,
Marginal Efficiency of Capital and Marginal Efficiency of Investment, wage
rigidities, underemployment equilibrium, role of fiscal policy: deficit spending
and public works, multiplier principle, cyclical behavior of the economy,
uncertainty and role of expectations, impetus to economic modeling.

Module 5: Indian Economic Thought
Early economic ideas: Kautilya, Valluvar; Modern economic ideas: Naoroji,
Ranade, R.C Dutt and MN Roy; Economic ideas of Gandhi: Village, Swadeshi,
place of machine and labour, cottage industries, trusteeship; Early approaches to
planning (The national planning committee); Gadgil co-operation as a way of
life and strategy of development; J.K Mehta: Wantlessness.

BASIC READING
Blackwell, Oxford.
Tata Mc GrAv Hill, New Delhi.
George Harrop & Co., London.
Eco/6/CC/12B INTERNATIONAL TRADE Credit 5

Objectives: To explain theories of trade and gains from trade and role of protection and the pattern of India’s trade

Outcome: Be able to understand impacts of protection in trade and liberalization of trade measures

Module – 1: Importance of Trade and trade Theories
Importance of the study of international trade; Inter-regional and international trade; Theories of absolute advantage, comparative advantage and opportunity cost; Heckscher-Ohlin theory of trade – its main features, assumptions and limitations

Module – 2: Gains from Trade
Gains from Trade and their measurement; Various concept of terms of trade; Doctrine of reciprocal demand – its limitations.

Module – 3: Tariffs and Quotas
Meaning and types of tariffs and quotas: Their impact in partial equilibrium analysis; Concept of optimum tariff; Free trade versus trade protection.

Module – 4: Balance of Trade and Balance of Payments
Concepts and components of balance of trade and balance of payments; Equilibrium and disequilibrium in balance of payments; Consequences of disequilibrium in balance of payments; Various measures to correct deficit in the balance of payment; Relative merits and demerits of devaluation.

Module – 5: Foreign Trade in India
Recent changes in the composition and direction of foreign trade; Causes and effects of persistent deficit in the balance of payments; Measures adopted by the government to correct the deficit before and after 1991; Meaning of partial and full convertibility of rupee.

BASIC READINGS:
Module 1: Introduction to Econometrics
Definition and scope of econometrics. The methodology of econometric research: specification and estimation of an econometric model. Basic concept of estimation: desirable properties of estimators- unbiasedness, efficiency, consistency, sufficiency.

Module 2: Theoretical Distribution and Testing of Hypothesis
Theoretical frequency distribution and application of binomial, poisson and normal distribution. Testing of hypothesis: Type-I and Type-II errors, Standard Errors, Level of Significance. Hypothesis testing based on Z, t and Chi-square statistics.

Module 3: Simple Regression Analysis

Module 4: Estimation
Concept of estimate and estimator, desirable properties of estimators- unbiasedness, efficiency, consistency and sufficiency, BLUE, MLE.

Module 5: Problems in OLS estimation
Problems of multicollinearity and auto-correlation- their consequences, tests and remedies.

BASIC READINGS:

Module 1: Cost and Revenue Analysis
Derivation cost curves; relations between total, average, elasticity of demand and revenue; producer’s surplus, production possibility curve, Adding up theorem.

Module 2: Input-Output Analysis
Module 3: Linear Programming
Concept and formulation of Linear Programming Problems, graphical and simplex methods of solving LP problems. Theorem of duality- concept of primal and dual, transformation of primal into dual.

Module 4: Introductory Game Theory
Introduction and concepts: two-person-zero-sum game, pure and mixed strategies, saddle point solution, dominance.

Module 5: Dynamic Economic models

BASIC READINGS:

Eco/6/CC/12E DEMOGRAPHY Credit 5

Objectives: Introduce key concepts/theories and provide basic techniques of analysis in demography
Outcome: Understand vital demographic statistics

Module – 1: Introduction
Population study and demography: Its relation with other disciplines; Theories of Population Malthus, Optimum theory of population, and theory of demographic transition.

Module – 2: Sources of Demographic Data in India
Sources of Demographic data in India: Census-Civil registration system and demographic surveys; National Family Health Survey 1 and 2 – their relative merits and demerits.

Module – 3: Techniques of Analysis
Module – 4 : Population Projection
Techniques of population projection – concept of stationary, stable and quasi-stationary population – aging of population in India – Changes in family structure and old age security.

Module – 5 : Population Policy
Salient features of Population Censuses of 1971, 1981, 1991 and 2001: Evolution of population policy in India, Shift in policy focus from population control to family welfare and to women empowerment

BASIC READINGS:

Eco/6/CC/12F COMPUTER AND SOFTWARE APPLICATIONS IN ECONOMICS Credit 5

Objectives : To give a broad overview of basic concepts in mathematical economics
Outcome : Familiarize with key mathematical economics concepts

Module – 1 : Basic of Computers
Computer fundamentals; Organization and components of a computer; computer hardware CPU; Memory; Disk drives; Input and output devices; Keyboard; Mouse and VDU, Computer peripherals like printer, scanner, digitizer, etc.
Computer software – Operating system, application software and packages.

Module – 2 : Use of Computer for Office Automation
Text editors and word processor software packages; Operative familiarization with any one package like MS-Word; Concept and use of spread sheet; Operation and use of MS-Excel; Basics of Database; Table; records and fields; Data entry and query processing; Operative principles of MS-Access; Document formation and presentation through MS-Power point.

Module – 3 : Data Analysis and Trend Forecasting
Basics of statistical functions and analysis – Mean, median, mode, standard deviation; Distribution function and density function; Statistical package
handling and command description for SPSS: Regression and auto-regression; Correlation and auto-correlation; Covariance and Auto covariance

Module - 4: Applications
Text and mail communication using computers; E-mail; Chat; Coice mail; Document transfer and delivery; Internet; World Wide Web (WWW) and use for business and commercial activities like e-business and e-commerce; Electronic stock market and exchanges; B2B and B2C Concepts.

Module - 5: IT Application to finance
On line banking; ATM’s Electronic Stock Exchange; Electronic trading; Data shearing and decimation; Electronic transaction; Document delivery; Authentication and validation transaction processing.

BASIC READINGS: