

**SYLLABUS FOR M. A. [ECONOMICS] UNDER CHOICE BASED  
CREDIT SYSTEM UNDER SIDO-KANHU MURMU UNIVERSITY  
DUMKA.**

<p><b>Semester I</b>            ECN-F0I -Foundation of Mathematical Economics            ECN-C02- Micro Economic Analysis            ECN-C03- Macro Economic Analysis            ECN-C04- Demography &amp; Environmental Economics</p>	<p><b>Semester II</b>            ECN- S05—Statistics &amp; Computer Applications for Skill Development            ECN – C06—Monetary Theory            ECN – C07—Indian Economic Policy            ECN – C08—Theory of Growth and Development</p>
<p><b>Semester III</b>            ECN – A09 – Choice Base            ECN – C10 – Production, Distribution and Welfare            ECN – C11 – Public Economics            ECN – C12 – International Economics</p>	<p><b>Semester IV</b>  <i>Students can opt one of the two elective groups, (A or B)</i>  <b>Group – A (Mathematical Economics &amp; Econometrics)</b>  <b>Group – B (Agriculture &amp; Industrial Economics)</b>            There will be three elective papers and one paper of dissertation</p>

**SIDO-KANHU MURMU UNIVERSITY, DUMKA**  
**University Department of Economics**  
**Syllabus**  
**Under Choice Base Credit System**  
**M.A. (Economics)**

The Papers for the MA Course will include Foundation Course (F) Core Course (C) Skill Development Course (S) Choice Base Course (A) and Elective Course (E).

**SEMESTER - I**

- ECN-F01 - Foundation of Mathematical Economics**
- ECN-C02 - Micro Economic Analysis**
- ECN-C03 - Macro Economic Analysis**
- ECN-C04 - Demography & Environmental Economics**

## SEMESTER - I

### ECN-F01

#### FOUNDATION OF MATHEMATICAL ECONOMICS

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of Ten Question.

##### **Module - I - Mathematical methods - I**

Derivatives and its application in Economics (Maxima, Minima, Pricing under Perfect competition, Monopoly and Duopoly, Elasticity of Economic functions); Exponential and logarithmic function.

##### **Module - II - Mathematical Method - II**

Partial Derivative and its application - Production function and partial elasticity of demand; Young's Theorem, Homogeneous function and Euler's Theorem; integration and its applications.

##### **Module - III - Mathematical Method - III**

Determinants and its properties; Matrix-Simple operation; Inversion; Rank of a matrix; Solution of equation by Cramer's rule and matrix method; Input-output analysis-concept; Leontief's open model.

##### **Module - IV - Mathematical Method - IV**

Linear programming - solution by graphical method; Game Theory - Concept of Game, pure and mixed strategies; Value of a game; Saddle point solution.

##### **Module - V — Basic Econometrics**

Nature, meaning scope and importance of Econometrics; Relation with Statistic & Economics; Simple Linear Regression Model — OLS method, Estimation of Parameters and Properties of least square estimators.

##### **BASIC READING LIST:**

- Allen, R.G.D. (1974) Mathematical analysis for Economics, Macmillan press & ELBS London.

- Chiang, A.C. (1986) Fundamental Methods of Mathematical Economics, McGraw Hill Co. Ltd., New York.
- Handry A.T. (1999) Operations Research, Prentice Hall of India, New Delhi.
- Spiegel, M.R. (1992) Theory and Problems of Statistics McGraw Hill Co. Ltd., New York.
- Taha, H.A. (1997) Operations Research : An Introduction (6th Edition) Prentice Hall of India (p) Ltd., New Delhi.
- Yamane, Taro (1975) Mathematics for Economics Prentice Hall of India, New Delhi.

## SEMESTER - I

ECN-C02

### MICRO ECONOMIC ANALYSIS

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### Module - I - Introduction and Basic Concept

Static and Dynamic Economics; Micro and Macro Economics; Basic Economic Problems, Choice and Scarcity; Positive and normative Economics. Model building in economics.

#### Module - II - Demand Analysis

Derivation of Demand curve from indifference curve technique, Difference between inferior goods, giffen goods, and normal goods; Revealed preference theory; Marshall and Hicks Consumer Surplus.

#### Module - III - Price and Output Determination

Supply curve of firm and industry under perfect competition, Discriminating Monopoly, Monopolistic competition – Chamberlin's Approach (Selling cost, Product differentiation and Excess capacity)

#### Module - IV – Price and Output Determination - II

Oligopoly – Collusive and Non Collusive (Cournot, Edgeworth and Kinked Demand Curve); Bilateral Monopoly.

#### Module - V - Alternative Theories of the Firm

Baumol's sales revenue maximization model; Williamson's Model of managerial discretion, and Marris Model of Firm.

#### BASIC READING LIST:

- Kreps, David M. (1990), A Course in Microeconomic Theory. Princeton University Press, Princeton.
- Koutsoyiannis, A. (1979), Modern Microeconomic (second edition) Macmillan Press, London.

- Layard, P.R.G. and A.W. Walters (1978), Microeconomic Theory, McGraw Hill, New York.
- Sen, A. (1999), Microeconomics Theory and Applications Oxford University Press, New Delhi.
- Stigler, G. (1996), Theory of Price (4<sup>th</sup> edition) Printice Hall of India, New Delhi.
- Varian, H. (2000), Microeconomic Analysis, W.W. Norton, New York.

## SEMESTER - I

**ECN – C03**

### MACRO ECONOMIC ANALYSIS

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### **Module - I - National Income Accounting**

Different concepts of National Income; Circular Flow of Income in two, three and four sector economy, Measurement of National Income

#### **Module - II - Consumption Function**

Keynesian Psychological law of consumption; Short run, long run, static and dynamic consumption function; Income consumption relationship - Absolute income; Relative income; Life-Cycle and permanent income hypothesis.

#### **Module - III - Investment function**

Determinants of investment function; Marginal efficiency of Investment and level of investment; Marginal efficiency of capital and Investment; Theory of Multiplier; Accelerator and investment behaviour, Super multiplier.

#### **Module - IV - Theory of Fluctuations**

Theories of Schumpeter Kaldor; Samuelson and Hicks; Control of Business cycle; Relative effectiveness of monetary and fiscal policies.

#### **Module - V – Macro Determination Model**

Classical, Keynesian, and IS – LM model.

#### **BASIC READING LIST:**

- Ackley, G.(1997), Macroeconomics, Theory and policy Macmillan, New York.
- Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World; (2 volumes) Oxford University Press, London.
- Branson, W.A. (1989), Macroeconomics Theory and Policy (3rd edition) Harper & Row, New York.

- Hall, R.E. and J.B. Taylor (1986), Macroeconomics W.E. Norton, New York.
- Heijdra, B.J. and V.P. Fredrick (2001), Foundations of Modern Macroeconomics, Oxford University Press, New Delhi.
- Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
- Mukherjee, S. (2005) Theories of under consumption, Classical Publication, New Delhi.
- Romer, D.L. (1996) Advanced Macroeconomics, McGraw Hill Co. Ltd., New York.
- Scarfe, B.L. (1997) Cycles Growth and Inflation McGraw Hill , New York.
- Shapiro, E (1996) Macroeconomics Analysis, Igotia Publications, New Delhi.



## SEMESTER - I

ECN – C04

### DEMOGRAPHY & ENVIRONMENT

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### Group A: (Demography)

##### Module - I - Population and Development

Meaning and scope of demography; Determinants of population growth (Fertility and Mortality) and their inter-dependence; Theories of population - Malthus, Optimum theory of population; Theory of demographic transition - Population and development, Factors effecting migration and urbanization.

##### Module - II - Structure of Population

Pattern of age and sex structure in more developed and less developed countries; Demographic effects of sex and age structure; Economic and Social implications; Age pyramids and projections; Study of Census in India - 1981, 1991 2001 and 2011.

##### Module- III Population and Development

Population and Development, factors affecting Migration and Urbanization; Growth and Distribution of rural Urban population in developed and developing countries.

#### Group B : (Environmental Economics)

##### Module - I - Environmental Issues

Economic Development and Environment - Sustainable development; Environmental externalities and climate change, Environmental degradation of land forest and natural resources. National Environmental policy, Environmental management and people's participation (PPP).

##### Module - II - Economics of Social Sector

Importance of Social Sector - Education and Health, Human Capital Vs Physical Capital. Education as Instrument of Economic Growth, Financing of education in India. Indicators of Health Status Rural and Urban Health Care Infrastructure, Financing of Health Services in India.

##### Module- III - Social Sector Development in India

Status of health and education in India- Problems and suggestions; Financing of education in

India. Indicators of Health Status Rural and Urban Health Care Infrastructure, Financing of Health Services in India.

### **BASIC READING LIST:**

- Agarwala S.N. (1972), India's Population Problem, Tata McGraw-Hill Co., Bombay.
- Bose, A. (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi
- Bogue, D.J. (1971), Principles of Demography, John Wiley, New York
- Chenery H. and TN. Srinivasan (Eds.) (1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier, Amsterdam.
- Choubey, RK. (2000), Population Policy in India, Kanishka Publications, New Delhi.
- Coale A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospects, Princeton University Press, Princeton.
- Gulati, S.C. (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi.
- Baumol, W.J. and W.E. Oates (1988), The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
- Berman, P. (Ed.) (1995), Health Sector Reform in Developing Countries : Making Health Development Sustainable, Boston: Harvard Series on Population and International Health.
- Bromely, D.W. (Ed.) (1995), Handbook of Environmental Economics, Blackwell, London.
- Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, Cambridge.
- Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan.
- Hussien, A.M. (1999), Principles of Environmental Economics, Routledge, London.
- Sinha U.P (2007), Economics of social sector and development, Concept Publishing company, New Delhi.

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**SEMESTER - II**

- ECN – S05 — Statistics & Computer Applications for Skill Development**
- ECN – C06 — Monetary Theory**
- ECN – C07 — Indian Economic Policy**
- ECN – C08 — Theory of Growth and Development**

## SEMESTER - II

ECN – S05

### STATISTICS & COMPUTER APPLICATIONS FOR SKILL DEVELOPMENT

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### Statistics

##### Module - I — Statistical Method - I

Simple Correlation And Regression Analysis; Karl Pearson's and Product Moment Method; Standard Error of Estimates and Probable Errors estimates; Partial and Multiple correlation; Estimation of line of Regression. Time series analysis; Estimation of trend value by least square method.

##### Module - II — Statistical Methods - II

Classical and empirical definition of Probability; Theorem of Probability (Addition Theorem) Conditional probability (Multiplication theorem), Bayes theorem ; Binomial and Normal Distribution.

##### Module - III — Sampling Theory and Hypothesis Testing

Basic Concept; Objects of sampling; principle of sampling, Types; Limitation and Errors in sampling; Choice of sampling Techniques; Hypothesis testing type I and Type II Error; Error in hypothesis testing; Significance of tests in Small sample, t-test, Z-test and Chi-square test  $\chi^2$  test for goodness of fit.

##### Module - IV Skill Development

Government initiatives for skill development, Role of D.I.C. for skill development, Training programmes for skill development – Role of Government and N.G.O.

##### Module - V Computer Application for Skill Development

Tools and utilities – MS Word, Adobe Acrobat, MS-Excel, MS-Power point. Data Processing, Graphical Processing, Use of Internet for Research, Use of SPSS, Use of Multimedia tools.

### **BASIC READING LIST:**

- Spiegel, M.R. (1992), Theory and problems of Statistics, McGraw Hill Co. Ltd., New York.
- Taha, H.A. (1997), Operations Research : An Introduction (6th Edn.), Prentice Hall of India (P) Ltd., New Delhi.
- Chou, Y. (1975), Statistical Analysis, Holt, Reinhart and Winston, New York.
- Croxtion, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi
- Millar, J. (1996), Statistics for Advanced Level, Cambridge University Press, Cambridge.
- Nagar, A.L. and R.K. Das (1993) Basic Statistics, Oxford University Press, New Delhi.
- Koutsoyiannis : Theory of Econometrics
- Goldberger : Introduction of Econometrics
- GS Maddala : INtroductionj to Econometrics.

## SEMESTER - II

ECN – C06

### MONETARY THEORY

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### Module - I — Supply of Money

Approaches towards determination of money supply — RBI approach to money supply, Determinants of Money supply; High Powered Money and Money Multiplier, Control of Money Supply — Policy Rates and Reserve Ratio.

#### Module - II — Demand for Money

Classical Approach to Demand for Money — Quantity Theory Approach, Keynes Liquidity Preference Approach; Aggregate demand for money, Derivation of LM Curve; Post Keynesian Approach to Demand for Money — Patinkin and Real Balance Effect; Approaches of Baumol and Tobin, Friedman.

#### Module - III — Theory of Inflation

Classical Keynesian and Monetarist approaches to Inflation; Structuralist theory of Equation, Phillips curve analysis — Short run and long run, Inflation and Indian Economy; RBI's Policies to control Inflation;

#### Module - IV — Money Market

Role and structure of money market, SEBI - Its structure, Function and its Impact on Capital market in India.

#### Module - V - International Financial Markets

Exchange rates — devaluation, floating exchange rates, International monetary system –IMF, World Bank -IDA and IFC.

#### BASIC READING LIST:

- Ackley, G. (1978), Macroeconomics : Theory and Policy Macmillan, New York.
- Blackhouse, R and A. Salansi (Eds.) (2000) Macroeconomics and the real world (Volumes), Oxford University Press, London.

- Branson, W.A. (1989) *Macroeconomics Theory and Policy* (3rd edition), Harper & Row, New York.
- Dornbusch R and F, Stanley (1997), *macroeconomics*, McGraw Hill Inc., New York.
- Hall, R.E. and J.B. Taylor (1986), *Macroeconomics*, W.E. Norton, New York.
- Heijdra, B.J. and V.P. Fredrick (2001) *Foundations of Modern Macroeconomics*, Oxford University Press, New Delhi.
- Jha, R. (1999), *Contemporary Macroeconomic Theory and Policy*, Wiley Eastern Ltd., New Delhi.
- Romer, D.L. (1996) *Advanced Macroeconomics*. McGraw Hill Co. Ltd., New York.
- Scarfe, B.L. (1977) *Cycles Growth and Inflation* McGraw Hill, New York.
- Shapiro, E. (1996) *Macroeconomics Analysis*, Glogtia Publications, New Delhi.
- Surrey, N.J.C. (Ed.), (1976) *Macroeconomics themis*. Oxford University Press, Oxford.
- Sinha, U.P (2010) *Monetary and Fiscal actions in India*, Concept Publishing Company, New Delhi.

## SEMESTER - II

ECN – C07

### INDIAN ECONOMIC POLICY

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### Module - I — Economic Development

Concept of economic growth, economic development and sustainable development; Role of State, market and other institutions; human resource Development importance and indicators ( PQLI, Human Development Index (HDI), gender development indices); Developing grass-root organizations for development — PRI's and NGOs.

#### Module - II — Planning in India

Objectives and strategies of planning in India; Failures and achievements of Plans in India. Decentralize planning in India

#### Module - III — Indian Agriculture

Nature and role of agriculture; Policies for agricultural and rural development; Technological change in agriculture — Price policy; Agricultural finance ; Agricultural Marketing and Warehousing; Issues in food security.

#### Module - IV — Industry

Industrial development during Five year plans; Industrial Policy; Public Sector enterprises and their performance; Problem of sick units in India; Small-scale and cottage industries

#### Module - V — External Sector

India's Foreign Trade-New Trade policy (EXIM policy); globalization and its impact on Indian Economy; Multinational Corporations, FERA & FEMA; W.T.O and its impact on the different sectors of the economy; SEZ.



### **BASIC READING LIST:**

- Ahluwalia, I.J. and I.M.D. Little (Eds.) (1999), Indian's Economic Reforms and Development (Essays in honour of Manmohan Singh), Oxford University Press, New Delhi.
- Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
- Bawa, R.S. and P.S. Raikhy (Ed.) (1997), Structural Changes in India Economy, Guru Nanak Dev University Press, Amritsar.
- Brahmananda, P.R. and V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy : Inter-State Perspectives, Bookwell, Delhi
- Chakravarty, S. (1987), Development Planning : The Indian Experience, Oxford University Press, New Delhi.
- Dantwala, M.L. (1996), Dilemmas of Growth : The Indian Experience, Sage Publications, New Delhi.

## SEMESTER - II

ECN – C08

### THEORY OF GROWTH AND DEVELOPMENT

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### **Module - I — Theories of Development**

Classical theory of development — Contribution of Adam Smith, Ricardo, Karl Marx.

#### **Module - II — Economic Growth — I**

Economic Growth and development; factors affecting economic growth-capital, labour and technology; Neo-classical growth models — Solow and Meade; Mrs. Joan Robinson's growth model, Harrod-Domer Model.

#### **Module - III — Economic Growth — II**

Technological progress-embodied and disembodied; Production function approach to economic growth; Growth models of Hicks and Kaldor; Golden Rule of accumulation; intellectual capital; Explanation of cross country differentials in economic growth.

#### **Module - IV — Social and Institutional Aspects of Development**

Poverty — Absolute and Relative; Causes and alleviation of poverty; Measuring development and development gap per capita income; Inequality of income Quality of life — Food security; Education; health and nutrition. Human resource development.

#### **Module - V — Partial theories of Growth and Development**

Vicious circle of poverty; Circular Causation; Unlimited supply of labour; Big push Theory; Balanced and unbalance growth, Critical minimum-effort thesis; Reni's and Fei model. Structural view of development.

#### **BASIC READING LIST:**

- Adelman, I. (1961), Theories of Economic growth and Development, Stanford University Press, Stanford.

- Behrman, S. and T.N. Srinivasan (1995) Hand book of Development Economics, Vol. 3, Elsevier, Amsterdam.
- Brown M. (1966) On the Theory and Measurement of Technical change Cambridge University Press, Cambridge Mass.
- Chenery, H.B. et al. (Eds) (1974) Redistribution with Growth O.U.P., Oxford.
- Chenery, H.B. and TN Srinivasan (Eds) (1989) Hand Book of Development Economics, Vol. I and II Elsevier, Amsterdam.
- Dasgupta P (1986) An Enquiry into well being and destitution, Clarendon Press, Oxford.
- Ghatak, S. (1986) An Introduction to Development Economics, George Alien & Unwin, London.

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**SEMESTER – III**

**1<sup>st</sup> paper of this semester will be choice based (ECN – A09) the choice base available for the students are:**

**Group A – Quantitative Technique**  
**Group B – Economics of Social Sectors**  
**Group C – Economics of Gender & Development**

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**ECN – A09 – Choice Base**

**ECN – C10 – Production, Distribution and Welfare**

**ECN – C11 – Public Economics**

**ECN – C12 – International Economics**

## **SEMESTER- III**

### **ECN – A09 (Choice Base) Group – A**

#### **QUANTITATIVE TECHNIQUES**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### **Module- I    Matrix Algebra**

Matrices: Concept, their types, simple operations on matrices, matrix inversion, solution of equations by matrix method, Concept of quadratic forms. Idempotent Matrix, Eigen Roots and Vectors, Orthogonal matrix.

#### **Module- II    Input Output Analysis**

Introduction to Input-output analysis, Features, Assumptions, open and closed models, Solution under three industries, Simon –Hawkins condition, Importance of Input output analysis.

#### **Module- III    Linear Programming**

Linear programming-basic concepts; formulation of Linear programming- its structure and variables; Solution of linear programming by Graphical Method, Formulation of a dual, Duality Theorems.

#### **Module- IV    Theory of Games**

Elementary theory of Games, concepts of games; Two person-zero-sum game solution of games by pure and mixed strategy, Saddle Point Solution.

#### **BASIC READING LIST:**

- Baumol, W.J. (1984), Economic Theory and Operations Analysis, Prentice Hall, Englewood Cliffs, New Jersey.
- Chiang, A.C. (2<sup>nd</sup> ed.) Fundamental methods of Mathematical Economics, McGraw Hill, New York.
- Hadley, G. (1962), Linear Programming, Addison- Wesley Publishing Co., Massachusetts.
- Koutsoyiannis, A. (1979), Modern Micro Economics, McMillan University Press, Princeton.

### **Basic Text**

- Allen, R.G.D. (1976), *Mathematical Economics*, McMillan, London.
- Arrow, K.J. and M. Intrilligator, (Eds) (1982), *Handbook of Mathematical Economics*, Vol. 1 2 and 3, North Holland, Amsterdam.
- Hadley, G. (1962), *Linear Programming*, Addison- Wesley Publishing Co., Massachusetts.
- Intrilligator, M.D. (1971), *Mathematical Optimization and Economic Theory*, Prentice Hall, Englewood Cliffs, New Jersey.

## SEMESTER- III

### ECN – A09 (Choice Base) Group – B

#### ECONOMICS OF SOCIAL SECTOR AND ENVIRONMENT

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of Ten questions.

##### Module-I Basics of Environmental Economics

Economic Development and Environment, Market and Environment: Market failure for Environment and necessary condition for market operation for environmental goods. Sustainable development and indicators of sustainable development. Methods of environmental valuation- contingent valuation method, travel cost and production function methods.

##### Module- II Environmental Issues

Environment and the poor, Environmental Kuznet curve, National Environment policy, Causes and impact of environmental degradation: Water, air and land social forestry- rational and benefits.

##### Module-III Economics of Social Sector

Importance of Social Sector- Education and health, Human Capital Vs Physical Capital. Education as Instrument of Economic Growth, Problems of Health Sector in India. Social security in India.

##### Module- IV Social Sector Development in India

Status of health and education in India- Problems and suggestions; Financing of education in India. Indicators of Health Status Rural and Urban Health Care Infrastructure, Financing of Health Services in India.

##### Module- V Migration & Urbanisation

Meaning, Concept, Types, Effects, Factors promoting and retarding migration, Theories of Migration – Pull and Push theory, Lewis model of Rural – Urban Migration, Todaro Model of Migration. **Urbanisation**: Meaning, Causes, Effects, Measures of Urbanisation, Urbanisation in India.

##### BASIC READING LIST:

- Chenery H. and TN. Srinivasan (Eds.) (1989), Hand Book of Development Economics, Vol. 1 & 2 Elsevier, Amsterdam.

- Coale A.J. and E.M. Hoover (1958), Population Growth and Economic Development in Low Income Countries: A Case Study of India's Prospects, Princeton University Press, Princeton.
- Gulati, S.C. (1988), Fertility in India: An Econometric Study of a Metropolis, Sage, New Delhi.
- Baumol, W.J. and W.E. Oates (1988), The Theory of Environmental Policy, (2nd Edition), Cambridge University Press, Cambridge.
- Berman, P. (Ed.) (1995), Health Sector Reform in Developing Countries : Making Health Development Sustainable, Boston: Harvard Series on Population and International Health.
- Bromely, D.W. (Ed.) (1995), Handbook of Environmental Economics, Blackwell, London.
- Fisher, A.C. (1981), Resource and Environmental Economics, Cambridge University Press, Cambridge.
- Hanley, N., J.F. Shogern and B. White (1997), Environmental Economics in Theory and Practice, Macmillan.
- Sinha U.P (2007), Economics of social sector and development, Concept Publishing company, New Delhi.
- Sankar, U. (Ed.) (2001), Environmental Economics, Oxford University Press, New Delhi.
- Charles D. Kolstad; Environmental Economics, New York Oxford University press
- Hanley, Shoirgan & Ben White, Environmental Economics in Theory and Practice.

### **Supplementary Readings**

- Divan Shyam and Armin Rosencranz (2008), Environmental Law and Policy in India, Cases, Materials and Statutes, Oxford University Press, New York.
- Ganesamurthy, V.S. (2009), Environmental Economics in India, New Century Publications, New Delhi, India.
- Government Policies.



## **SEMESTER- III**

**ECN – A09 (Choice Base) Group – C**

### **ECONOMICS OF GENDER AND DEVELOPMENT**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### **Module – I Demographic Aspects**

Demography of female population: Age structure, mortality rates, and sex ratio — Causes of declining sex ratios and fertility rates in LDCs and particularly India; Women and their access to nutrition, health, education.

#### **Module – II Women and Economy**

Economic status of women and its effect on work-participation, income level, health, and education in India. Impact of technological development on women's work participation in agriculture and non-agriculture rural activities, small and cottage industries.

#### **Module – III Fertility and Nuptality**

**Fertility:** Meaning, Concepts – CBR, ASBR, GFR, GRR and Factors affecting fertility.  
**Nuptality:** Meaning, Concepts – CMR, SMR, GMR, Determinants of nuptality, Marital Dissolution

#### **Module – IV Women and Labour Markets**

Factors affecting female entry in labour market- particularly India; female work participation in agriculture, non-agricultural rural activities, cottage and small-scale industries, and services sector, Problems of female labour.

#### **Module – V Social Security and Social Protection for Women**

Social security of women: entitlements, ensuring economic independence, Self help groups in providing social security; Schemes for safety net for women; Democratic decentralization (panchayats) and women's empowerment in India.

## **BASIC READING LIST:**

- Boserup E. (1970), *Women's Role in Economic Development*, George Allen and Unwin, London.
- Desai, N. and M.K. Raj. (Eds.) (1979), *Women and Society in India*, Research Centre for Women Studies, SNDT University, Bombay.
- Government of India (1974), *Towards Equality — Report of the Committee on the Status of Women in India*, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
- Krishnaraj, M., R.M. Sudarshan and A. Shariff (1999), *Gender , Population and Development*, Oxford University Press, New Delhi.
- Seth, M. (2000), *Women and Development : The Indian Experience*, Sage Publications, New Delhi.
- Srinivasan K. and A. Shroff (1998), *India: Towards Population and Development Goals*, Oxford University Press, New Delhi.
- Venkateswaran, S. (1995), *Environment, Development and the Gender Gap*, Sage Publications, New Delhi.
- Wazir, R. (2000), *The Gender Gap in Basic Education: NGOs as Change Agents*, Sage Publications, New Delhi.

## SEMESTER - III

ECN – C10

### PRODUCTION, DISTRIBUTION AND WELFARE

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### Module - I — Production

Production function ; Isoquant — Least cost combination of inputs; Returns to factors;; Elasticity of substitution; Technical progress and production function; Cobb—Douglas production functions and its properties; Theories of cost.

#### Module - II — Distribution

Marginal productivity theory under different Market condition and Modern theory of distribution; Product exhaustion theorem; Theory of distribution in imperfect factor markets; Macro theories of distribution — Ricardian, and Marxian.

#### Module - III— Market Equilibrium

Partial and general equilibrium, Walrasian excess demand and input-output approaches to general equilibrium, existence, stability and uniqueness of equilibrium.

#### Module - IV — Welfare Economics - I

Definition, scope and purpose of Welfare Economics; Measurement of Welfare; Pigou's Welfare Economics; Pareto optimality — Optimum exchange conditions; The production optimum; The consumption optimum; Concept of contract curve.

#### Module - V — Welfare Economics - II

Compensation criteria - Contributions of Kaldor and Hicks and Scitovsky double criterion, Bergson's social welfare function.

#### BASIC READING LIST:

- Arrow, K.J. (1951), Social Choice and Individual Values, Yale University Press, New Haven.
- Baumol, W.J. (1965), Welfare Economics and the Theory of the State (Second Edition), Longmans, London.
- Baumol, W.J. (ed.) (2001), Welfare Economics, Edward Elgar Publishing Ltd. U.K.

- Broadway, R.W. and N. Bruce (1984), Welfare Economics, Basil Blackwell, Oxford.
- Duesenberry, J.S. (1949), Income, Saving and the Theory of Consumer Behaviour, Harvard University Press, Cambridge, Mass.
- Feldman, A.M. (1980), Welfare Economics and Social Choice Theory, Martinus Nijhoff, Boston.
- Graaff J. de V. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.
- Little, I.M.D. (1939), A Critique of Welfare Economics (2nd Edition), Oxford University Press, Oxford.
- Marshall, A. (1946), Principles of Economics, Macmillan, London.
- Myint, H. (1948), Theories of Welfare Economics, Longmans, London.
- Ng Y.K. (1979), Welfare Economics, Macmillan, London.
- Nicholas, B. (Ed.) (2001), Economic Theory and the Welfare State, Edward Elgar Publishing Ltd., U.K.
- Pigou, A.C. (1962), The Economics of Welfare (4th Edition), Macmillan.
- Quirk, J. and R. Saposnik (1968), Introduction to General Equilibrium Theory and Welfare Economics, McGraw Hill, New York.
- Samuelson, P.A. (1947), Foundations of Economic Analysis, Harvard University Press, Cambridge, Mass.

## SEMESTER - III

ECN – C11

### PUBLIC ECONOMICS

Full Marks - 70

Time - 3 Hrs.

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### Module - I — Public Expenditure

Wagner's law of increasing state activities; Wiseman Peacock hypothesis, effects of public expenditure; Performance and programme budgeting and Zero based budgeting; Fiscal policy and its objectives, Effects of public expenditure.

#### Module - II — Taxation

Theory of Maximum Social Advantage, Ability to pay approach; Indices of Ability to pay; Incidence of taxation-Impact, Incidence and Effects of a tax, Backward and forward shifting. Taxable Capacity

#### Module - III — Public Debt and Public Sector Pricing

Sources; effect and burden of public debt; Public debt and economic growth, Public debt and inflation, Public debt as a means of regulating economy; Public debt management and repayment.

#### Module - IV — Indian Tax System

Analysis of Indian Tax System; Sources of revenue of Union; State and Local bodies (Tax and Not-Tax); major Taxes in India-income tax, sales tax, VAT, The Role of Finance Commission-13<sup>th</sup> Finance Commission.

#### Module - V — Indian Public Finance

Fiscal federalism in India; Centre – state financial relations in India, Analysis of Central and State government budget; Lack of flexibility in Central and State budgets, Fiscal crisis and fiscal sector reform in India.

#### BASIC READING LIST:

- Atkinson, A.B. and J.E. Stiglistz (1980), Lectures on Public Economics, Tata McGraw Hill, New York.

- Auerbach, A.J. and M. Feldstern (Eds) (1985) Handbook of Public Economics, Vol. I. North Holland Amsterdam.
- Huchanan, J.M. (1970) The public Finance, Richard D. Irwin, Homewood Goode, R. (1860), Lectures on Public Economics, Tata McGraw Hill, New Delhi.
- Menutt, P. (1996), The Economics of Public Choice, Edward Elgar, U.K.
- Musgrave, R.C. (1959), The Theory of Public Finance, McGraw Hill Kogakhusa, Tokyo.
- Suoup, C.S. (1970), Public Finance, Aldine, Chicago.
- Shome, P. (Ed.) Tax policy : Handbook, Tax Division, Fiscal Affair Development International Monetary Fund. Washington, D.C.

## SEMESTER - III

**ECN – C12**

### INTERNATIONAL ECONOMICS

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### **Module - I — Theory of International Trade**

The theory of International trade — theories of comparative cost advantage and opportunity costs. Heckscher -Ohlin theory of trade, Leontief Paradox,

#### **Module - II — Theory of Interventions**

Economic effects of tariffs and quotas on national income, output, employment, terms of trade and income distribution. Nominal, effective and optimum rates of tariffs - their measurement and impact.

#### **Module - III — Monetary aspects of International Trade**

Meaning and Components of Balance of Payments; Equilibrium and disequilibrium of Balance of Payments; Factors causing disequilibrium in balance of payments and its correction; Foreign Trade Multiplier.

#### **Module - IV — Exchange Rate**

Concept of Foreign exchange rate, fixed and flexible exchange rates, Convertibility of currency; Devaluation -Devaluation of Indian Rupee and its impact on our economy; Demand and supply theory of exchange rate determination.

#### **Module - V — The Theory of Regional Blocks**

Reforms of the International monetary system, India and developing countries; Functions of WTO, IMF, World Bank and Asian Development bank — their achievements and failures.

#### **BASIC REDING LIST:**

- Bhagwati, J.N. (ed), International Trade : Selected Readings. Cambridge University Press, Cambridge.
- Carbough, R.J. (1999), International Economics, International Thomson Publishing, New York.

- Chacholiades, M. (1990), International Trade Theory and Policy, McGraw Hill, Kohakusha, Tokyo, Japan.
- Dana, M/s (2000), International Economics : Study, Guide and Workbook (5<sup>th</sup> Ed) Routledge Pub. London.
- Dunn, R.M. and J.H. Mutto (2000), International Economics, Routledge, London.
- Kenen, P.B. (1994), International Economy; Cambridge University Press, London.
- King, P.O. (1995), International Economics and International Economic Policy : A Reader McGraw Hill International, Singapore.
- Salvatore, D. (1997), International Economics, Prentice Gall, Upper Saddle River, N.J. New York.
- Soderston, Bo (1991), International Economics, Macmillan Press, London.



**SIDO-KANHU MURMU UNIVERSITY, DUMKA**  
**Department of Economics**  
**Syllabus**  
**M.A. (Economics)**

**SEMESTER - IV**

*Students can opt one of the two elective groups, (A or B)*

**Group A**

**(Mathematical Economics & Econometrics)**

**Group B**

**(Agriculture & Industrial Economics)**

**There will be three elective papers and one paper of dissertation**

**SEMESTER - IV**  
**GROUP - 'A'**

**ECN – E13**

**MATHEMATICAL ECONOMICS & ECONOMETRICS -I**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

**Module - I — Theory of Consumer Behaviour**

Cardinal and Ordinal utility maximization; Concepts of elasticities; Consumer's surplus; Compensated and normal demand function; Revealed preference theory.

**Module - II — Theory of Production**

Homogeneous production function; Properties of Cobb-Douglas production function, Mathematical relationship between average cost and marginal cost; Producer's equilibrium — Laws of productions; Constrained optimization of a producer; Adding - up problem; Production possibility curve.

**Module - III — Price Determination & Market Equilibrium**

Price and quantity determination under Perfect Competition; Monopoly; Duopoly and Discriminating monopoly, Problem of taxation and subsidy in Monopoly Pricing. Single market equilibrium.

**Module - IV — Theory of Matrix and Linear Programming**

Matrix : Symmetric and Skew - Symmetric; Orthogonal matrix, Idempotent matrix; Quadratic forms; Linear Programming, Primal and Dual; Steps in construction of dual duality theorem; Solution of linear programming by Graphic method.

**Module - V — Game Theory And Input Output Analysis**

Concept of Game theory; Pure and Mixed strategies; Maximum and Mini - max solution; Saddle point; Solution of Games by pure and mixed strategy; G; 0Input Output Analysis — Open and Closed systems; Hawkins - Simon Conditions; Solution under three industries.

**BASIC READING LIST:**

- Allen R.G.D. (1976) *Mathematical Economics*, Macmillan
- Arrow, K.J. and M. Intriligator (Eds.) (1982) *Hand book of Mathematical Economics*, Vol. 1, 2 and 3 North Holland, Amsterdam.
- Henderson, J.M. and R.E. Quandt (1980) *Micro Economic Theory : A Mathematical approach* McGraw Hill, New Delhi.

## SEMESTER - IV

### GROUP - 'A'

ECN – E14

### **MATHEMATICAL ECONOMICS & ECONOMETRICS - II**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of Ten questions.

#### **Module - I — Difference and Differential Equations and Trade Cycle theory**

First and second order difference equation; First order differential equation (general and particular solution) with economic application; Trade cycle theories — Samuelson, Hicks.

#### **Module - II — Keynes and Classics**

Classical and Keynes' Macro system; Keynesian liquidity preference and modern theory of interest; Dynamic monetary model; Static and dynamic multiplier; Determinants of investment; Accelerator; Harrod- Domar growth model.

#### **Module - III — Basic of Econometrics**

Assumption of the error term, Estimation of parameters of bi-variate linear model through OLS approach and properties of OLS estimates; Gauss Markov theorem; Concept and derivation of  $R^2$ .

#### **Module - IV — Problems in Regression Analysis**

Nature test; Consequences and problems of Hetero- scedasticity; Multicollinearity and Auto correlation, First order Auto regressive scheme, Mean, variance and co-variance of auto correlated U's, Durbin Watson test and graphical test.

#### **BASIC READING LIST:**

- Chung, J.W. (1993) Utility and production : Theory and applications, Basil Blackwell, London.
- Ferguson, H. (1976) Neo Classical Production and distribution.
- Amemiya, T. (1985), Advanced Econometrics, Harvard Univ. Press, Cambridge, Mass.

- Baltagi, B.H. (1998) Econometrics, Springer, N.Y.
- Dongherty, C. (1992) Introduction to Econometrics, Oxford University Press, New York.
- Goldberger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge Mass.
- Gujarati, D.N. (1995) Basic Econometrics (2<sup>nd</sup> Edn.) McGraw Hill, New Delhi.
- Hill, R.C., E.G. William and G.G. Judge (1997), Undergraduate Econometrics, Wiley, New York.
- Kennedy, P. (1998), A Guide to Econometrics (4<sup>th</sup> Edn), MIT Press, New York.
- Kmenta, J. (1997), Elements of Econometrics (Reprint Ed) University of Michigan Press, New York.
- Koutsoyiannis, A. (1977), Theory of Econometrics (2<sup>nd</sup> ed.) The Macmillan Press Ltd., London.
- Krishna, K.L. (Ed) (1977) Econometrics Applications in India O.U.P. New Delhi.
- Maddala, G.S. (Ed.) (1993), Econometrics Methods and Applications (2 Vols) Aldershot, U.K.
- Theil, H. (1981), Introduction to Econometrics, Prentice Hall of India, New Delhi.

## SEMESTER - IV

### GROUP - 'A'

**ECN – E15**

### **MATHEMATICAL ECONOMICS & ECONOMETRICS - III**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

#### **Module - I — Dynamic Econometric model**

Generalised Least Square (GLS) Estimation of parameters .

#### **Module - II — Simultaneous Equation Model**

The Simultaneous equation — Bias and inconsistency of OLS estimators; Structural form and reduced form models; The identification problem; Rules of identification; Order and rank conditions. Maximum Likelihood (M-L) method;

#### **Module - III — Time Series Analysis**

Meaning, Importance and components of time series, calculation of trend values by least square method — Stationary and Non-stationary .

#### **Module -IV — Multivariate Analysis**

Multivariate probability distribution, Conditional probability distribution, Binomial and Normal-distribution-and-distribution-and-its. properties

#### **BASIC READING LIST:**

- Amemiya, T. (1985), Advanced Econometrics, Harvard Univ. Press, Cambridge, Mass.
- Baltagi, B.H. (1998) Econometrics, Springer, New York.
- Goldberger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge Mass.
- Gujarati, D.N. (1995) Basic Econometrics (2<sup>nd</sup> Edn.) McGraw Hill, New Delhi.
- Kmenta, J. (1997), Elements of Econometrics (Reprint Ed) University of Michigan Press, New York.

- Koutsoyiannis, A. (1977), Theory of Econometrics (2<sup>nd</sup> ed.) The Macmillan Press Ltd., London.
- Maddala, G.S. (Ed.) (1993), Econometrics Methods and Applications (2 Vols) Aldershot, U.K.
- Franses, P.H. (1998), Time series models for business and Economic Forecasting, Cambridge Unit Press, Cambridge.
- Intrilligator, M.D. (1978), Econometric Methods techniques and application Prentice Hall, Englewood cliffs, New Jersey.
- Anderson, T.W. (1958) Introduction to multivariate statistical Analysis, Chapman and Hall, London.
- Chatfield, C and A.J. Collins, (1980), Introduction to Multivariate Analysis, Chapman and Hall, London.

**SEMESTER - IV**  
**GROUP - B**

**ECN – E13**

**AGRICULTURAL & INDUSTRIAL ECONOMICS - I**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

**Module - I — Agriculture and Economic Development**

Nature and scope of agricultural and rural economics; Role of agriculture in economic development; Traditional agriculture and its transformation; Interdependence between agriculture and industry.

**Module - II — Agricultural Production and Productivity**

*Agricultural production* — Resource use and efficiency; Production function analysis in agriculture; Factor combination and resource substitution; cost and supply curves; Size of farm and laws of returns. Resource use in traditional agriculture.

**Module - III — Agricultural Marketing**

Marketing and state policy; Agricultural markets and marketing efficiency — Marketing functions and costs; Market structure and imperfections; Regulated markets; marketed and marketable surplus;

**Module - IV - Agricultural Pricing**

Behaviour of agriculture prices policy in India, Terms of trade between agricultural and non-agricultural prices; Need for state intervention.

**Module - V — Agricultural Growth in India**

Recent trends in agricultural growth in India; Role of subsidies-Irrigation, Power, seeds and fertilizer; Role of Public investment in Indian Agriculture; Strategy of agricultural development and technological progress; Sustainable agriculture .

**BASIC READING LIST**

- Bhaduri, A. (1984), The Economic Structure of Backward agriculture, Macmillan, Delhi
- Bilgrami, S.A.R. (1996), Agriculture Economics, Himalaya Publishing House, Delhi.
- Dantwala, M.L. et al. (1991), Indian agricultural Development since Independence, Oxford and IBH, New Delhi.



- Deogharia, P.C. (2008) Rural Credit In India, Satyam Publication, New Delhi.
- Government of India (1976), Report of to National Commission on agriculture, New Delhi.
- Government of India, Economic survey (Annual)
- Gulati, A and T. Kelly (1999), Trade Liberalization and Indian agriculture, O.U.P. New Delhi.
- Joshi, P.C. (1975) Land Reforms in India : Trends and propects. Allied Publishers, Bombay.
- Kahlon, A.S. and D.S. Tyagi (1983), Agriculture price Policy in India, Allied Publishers, Bombay.

**SEMESTER - IV**  
**GROUP - B**

**ECN – E14**

**AGRICULTURE & INDUSTRIAL ECONOMICS - II**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

**Module - I — Green Revolution and Indian Agriculture**

*Green Revolution in India* : Strategy for development of Indian Agriculture — A Survey, The Green revolution, Factors responsible for Green revolution; Economic benefits of Green Revolution; problems created by Green revolution, Need for Second Green Revolution in India.

**Module - II — Agricultural Finance and Marketing**

Need for Agricultural Finance, Sources of Agricultural Finance and their relative importance, Co-operative credit societies, Commercial Banks and rural Credit, RRB's NABARD, Financial inclusion, Debt waiver and Debt relief. Agricultural Marketing in India. Government measures to improve the system of Agricultural Marketing, Co-operative Marketing.

**Module - III — Labour Markets**

Nature and characteristic of labour markets in developing countries; Demand for Labour in relation to size and pattern of Investment, Supply of Labour in relation to growth of labour force; Mobility and productivity of labour; Methods of recruitment and Placement.

**Module - IV — Wage Determination**

Classical, Neo-classical and bargaining theories of wage determination; Concept of minimum wage, leaving wage and fair wage in theory and practice; National wage policy.

**Module - V — Industrial Relations**

Theories of Labour movement growth; pattern and structure of labour union in India; Causes of industrial disputes and their settlement and prevention; Current trends in collective bargaining; Labour legislation in India.

**BASIC READING LIST:**

- Bhaduri, A.(1984) The Economic Structure of backward Agriculture, Macmillan, Delhi
- Bilgrami, S.A.R. (1996), Agricultural Economics, Himalaya Publishing House, Delhi.

- Dantwala, M.L. et. al (1991), Indian Agricultural Development Since Independence, Oxford & IBH, New Delhi.
- Deogharia P.C. (2008) Rural credit in India, Satyam Publication, New Delhi.
- Government of India (1976), Report of the National Commission on Agriculture, New Delhi.
- Government of India, Economic Survey (Annual), New Delhi.
- Gulati, A. and T. Kelly (1999), Trade Liberalisation and Indian Agriculture, Oxford University Press, New Delhi.
- Joshi, P.C. (1975) Land Reforms in India : Trends and prospects, Allied Publishers, Bombay.
- Kahlon, A.S. and Tyagi d.S. (1983), Agriculture price Policy in India, Allied Publishers, New Delhi.
- Rao, C.H. Hanumantha (1975), Agricultural Growth, Rural Poverty and Environmental Degradation in India, Oxford University Press, New Delhi.
- Reserve bank of India, Report on Currency and Finance (Annual), Mumbai.
- Rudra, A. (1982), Indian Agricultural Economics : Myths and Reality, Allied Publishers, New Delhi.
- Saini, G.R. (1979), Farm Size, Resource Use Efficiency and Income Distribution, Allied Publishers, New Delhi.
- Datt, G. (1996), Bargaining Power, Wages and Employment : An Analysis of Agricultural Labour Markets in India, Sage Publications, New Delhi.
- Hajela, P.d. (1998), Labour Restructuring in India : A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
- Jhabvala, R and R.K. Subramanya (Eds) (2000). The Unorganized Sector : Work Security And Social Protection, Sage Publication, New Delhi.
- Lester, R.A. (1960), Economics of Labour (2<sup>nd</sup> Edition), Macmillan, New Delhi.
- Papola T.S., P.S. Ghosh and A.N. Sharma (Eds) (1993), Labour Employment and Industrial Relations in India, B.R. Publishing Corporation, New Delhi.

- Rosenberg, M.R. (1988), Labour Markets in Low Income Countries in Chenery, H.B. and T.N. Srinivasan (Eds), The handbook of Development Economics, North – Holland, New York.
- Venkata Ratnam, C.S. (2001), Globalization and Labor-Management Relations : Dynamics of Change, Sage Publication/Response Books, New Delhi.

**SEMESTER - IV**  
**GROUP - B**

**ECN – E15**

**AGRICULTURE & INDUSTRIAL ECONOMICS -III**

**Full Marks - 70**

**Time - 3 Hrs.**

Candidates will have to answer **five** questions out of total of **Ten** questions.

**Module - I — State of labour**

Static and social security of labour — Concepts of Social Security, Social assistance and social insurance; Policies with special respect to social security and labour welfare of India; Special Problems of labour, female labour, Child labour; Second National Commission on labour; labour market reforms; exit policy, need for safety nets.

**Module - II — Framework and Problems of Industrial Economics**

Concept and organization of a firm, Classification of firm on the basis of Ownership structure (Public, Private, Joint and Cooperative Sectors). Objectives of firm, Location of Industries — Weber, Sargent Florence, Factors Influencing, Location of Industries. Industrial Sickness — Symptoms, Causes and Remedial Measures.

**Module - III — Industrial Productivity**

Productivity — Measurement, Factors affecting Productivity, Importance of Productivity in the Competitive Environment, National Production Movement in India.

**Module - IV — Industrial Finance**

Major funding agencies IDBI IFCI, SFCs, SIDBI and Commercial banks, Role of FDIs in Industrial development.

**Module - V — Indian Industrial Growth and Pattern**

Industrial Policy in India — Role of Public and Private Sector, Problems of Small Scale & Cottage Industries in India, Role of MNC's in India, Recent trends in Indian Industrial growth, Regional Industrial growth in India, Issues of Industrial proliferation and environmental preservation; Pollution control policies of industries.

### **BASIC READING LIST:**

- Ahluwalia, I.J. (1985), *Industrial Growth in India*, Oxford University Press, New Delhi.
- Barthwal, R.R. (1985), *Industrial Economics*, Wiley Eastern Ltd., New Delhi.
- Cherunilam, F. (1994), *Industrial Economics : Indian Perspective (3<sup>rd</sup> Edition)* Himalaya Publishing House, Mumbai.
- Desai, B. (1999), *Industrial Economy in India (3<sup>rd</sup> Edition)*, Himalaya Publishing House, Mumbai.
- Divine, P.J. and R.M. Jones et. Al. (1976) *An Introduction to Industrial Economics*, George Allen and Unwin Ltd., London.
- Government of India, *Economics Survey (Annual)*
- Hay, D. and D.J. Morris (1979) *Industrial Economics : Theory and Evidence*, Oxford University Press, New Delhi.
- Kuchhal, S.S. (1980), *Industrial Economy of India (5<sup>th</sup> Edition)*, Chaitanya Publishing House, Allahabad.
- Reserve Bank of India, *Report on Currency and Finance (annual)*.
- Singh, A. and A.N. Sadhu (1988), *Industrial Economics* Himalaya Publishing House, Bombay.

## **RESEARCH & PROJECT WORK (Dissertation)**

**ECN – D16**

### **PART- I RESEARCH & PROJECT**

#### **Module- I Project + Project Proposal**

**-30 Marks**

- Formulation of the Project Proposal
  - Execution of the Project
  - Specification of Data Requirement
  - Sources of Secondary Data
  - Data Collection Methods
  - Data Analysis
  - Writing the Project Report
  - List of References
  - Project Evaluation
- (a) Central tendency (Mean, Median, Mode), Dispersion, Correlation [simple and multiple].

#### **Part- II Project work**

**- 70 Marks**

Students will have to do a project work. The project work will be of 70 marks. At the end of the semester the candidate will have to present his dissertation.