

WEST BENGAL STATE UNIVERSITY

**SYLLABUS
FOR THREE YEAR B. Sc. DEGREE COURSE**

**(HONOURS)
IN
ECONOMICS**

**According to the New Examination Pattern
Part – I, Part- II & Part- III**

**WITH EFFECT FROM THE SESSION
2010 – 2011**

WEST BENGAL STATE UNIVERSITY

Syllabus of Economics (Honours Course) (w.e.f. the session 2010-2011)

Structure and Distribution of Marks

PART-I:

PAPER-I: ECONOMIC THEORY-I

GROUP-A: MICROECONOMICS –I 50 Marks

GROUP – B: MACROECONOMICS –I 50 Marks

PAPER-II: QUANTITATIVE TECHNIQUES FOR ECONOMICS-I

GROUP-A: STATISTICS – I: 50 Marks

GROUP-B MATHEMATICAL ECONOMICS- I: 50 Marks

PART-II:

PAPER-III: ECONOMIC THEORY-II

GROUP-A: MICROECONOMICS –II: 50 Marks

GROUP-B: MACROECONOMICS –II: 50 Marks

PAPER-IV: DEVELOPMENT ECONOMICS & ISSUES ON ECONOMIC DEVELOPMENT

GROUP-A: DEVELOPMENT ECONOMICS: 50 Marks

GROUP-B: ISSUES ON ECONOMIC DEVELOPMENT: 50 Marks

PART-III:

PAPER-V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE

GROUP-A: INTERNATIONAL ECONOMICS: 60 Marks

GROUP-B: PUBLIC FINANCE: 40 Marks

PAPER-VI: INDIAN ECONOMIC PROBLEMS & PLANNING: 100 Marks

PAPER-VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS-II

GROUP-A: STATISTICS – II: 50 Marks

GROUP-B: MATHEMATICAL ECONOMICS- II: 50 Marks

PAPER-VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK:

GROUP-A: (i) INDIAN ECONOMIC HISTORY: 25 Marks

 (ii) COMPUTER APPLICATION: 25 Marks

GROUP-B: PROJECT WORK: 50 Marks

PART-I

PAPER 1: ECONOMIC THEORY-1

GROUP A -MICROECONOMICS I

Full Marks- 50

Minimum Number of Lectures 70

1. INTRODUCTION: Nature and scope, Scarcity and choice, Concepts of demand and supply-Demand function, Supply function, Market equilibrium, Impact of changes in demand and supply, Price system as an economic mechanism.

TEXT: Maddala & Miller – Microeconomics

Chapter -1 Section – 1.1 & 1.2

Chapter -2 Section – 2.2 & 2.3

2. CONSUMER BEHAVIOUR: Assumptions on preference ordering, Indifference curve, Budget constraint and Consumer's equilibrium, Substitution effect (Hicks & Slutsky) and Income effect, Ordinary and Compensated demand curves, Inferior goods and Giffen goods, Price consumption and income consumption curves, Derivation of labour supply and intertemporal choice, Saving and borrowing, Revealed Preference – the weak axiom and substitution effect.

TEXT: (i) Maddala & Miller

Chapter -4 Sections – 4.4, 4.5, 4.6

Chapter -5 Sections – 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, 5.8.1

REFERENCES: (i) Ryan & Pearce – Price Theory

Chapter -1 Section – 1.1, 1.2, 1.3

Chapter -2 Section – 2.0, 2.2, 2.6, 2.7, 2.10

(ii) Ferguson & Gould – Microeconomics Theory

Chapter 4, Section – 4.6, 4.7

Chapter 3

(iii) Varian – Intermediate Microeconomics (3rd edition)

Chapter -3 (page – 34, 35), 7 (page – 118-126)

(iv) Henderson & Quandt – Microeconomic Theory- A Mathematical Approach (3rd Edition) Chapters- 2, 6

3. DEMAND AND SUPPLY: Market equilibrium, Stability of equilibrium, Elasticities of demand and supply, Consumer's and producer's surplus, Burden of indirect taxes and subsidies, Price and quantity controls, Minimum wage, Import tariff and quota.

REFERENCES: (i) Maddala & Miller

Chapter -2 (Section 2.7.1), Chapter-3 (Section 9.9)

(ii) Pindyck & Rubinfeld – Microeconomics

Chapter -4 (Section 4.4, page 113-118), Chapter -9(Section 9.1, Page 277-278) Chapter -9(Section 9.4, 9.5, 9.6)

4. PRODUCTION AND COST: Production function, Total, Average and Marginal products, Isoquants and economic regions of production, Cost minimization and expansion path, Elasticity of substitution, Economies of scale, Cobb Douglas, Fixed coefficient and CES functions, Short run and long run costs, Derivation of the cost function from production function.

REFERENCES: (i) Ferguson & Gould

- Chapter -5, 6, 7 (pp: 183)
 - (ii) Maddala & Miller
 - Chapter -6 (Sections – 6.3, 6.5, 6.6, 6.7), 7 (Section – 7.7)
 - (iii) Chiang & Wainwright– Fundamental Methods of Mathematical Economics (4th Edition,)
 - Chapter – 12 pages: 386-388, 390-394, 396, 397-399
 - (iv) Salvatore – Microeconomics
 - Section – 7.4, 8.2, 8.3 (Appendix pp: 221-225)
5. PERFECT COMPETITION: Features, Short run and long run equilibrium of the firm, Short run supply function, Industry equilibrium, Long run industry supply with or without external economies or diseconomies.
- TEXT: Maddala & Miller, Chapter -10 (page 283-292)
- REFERENCES: (i) Ferguson & Gould - Chapter – 9 (page 253-266)
- (ii) Henderson & Quandt – Chapter - 6
 - (iii) Koutsoyiannis – Modern Microeconomics- Chapter–5 (Page 154-163)

GROUP B: MACROECONOMICS I

Full Marks- 50

Minimum Number of Lectures - 70

1. Macroeconomic Data: National Income accounting – GDP, GNP, NNP, NI, DPI, Different methods of Calculating NI; Measurement of cost of living – CPI, GDP Deflator; Measuring Joblessness – Unemployment rate, Unemployment and GDP – Okun’s Law
NI as a measure of economic welfare.
TEXT:- Mankiw - Macroeconomics (5th Edition); Chapter- 2
REFERENCES: Soumyen Sikdar - Principles of Macroeconomics (OUP); Chapter- 2
Abel & Bernanke - Macroeconomics (4th Edition); Chapter- 2
2. The Economy in the Long run: The classical Analysis of the real sector – Determination of employment, income and interest rate.
TEXT: Mankiw (5th Edition); Chapter – 3
3. (i) The economy in the Short run: Simple Keynesian analysis of aggregate demand with or without govt. sector, Multipliers; IS-LM analysis, Fiscal policy and Monetary policy; IS-LM analysis in the short run and long run.
TEXT: Mankiw (5th Edition); Chapters- 10, 11
References: Dornbusch, Fischer and Startz - Macroeconomics (8th Edition); Chapters- 9, 10, 11
Branson – Macroeconomics - Theory and Policy (2nd Edition)

(ii) Introduction to economic fluctuation: Impact of shift of aggregate demand curve both in the short run and in the long run.
TEXT: Mankiw (5th Edition); Chapter- 9
4. The complete Keynesian Model: A three sector model taking into consideration of product market, money market and labour market.
TEXT: Branson (2nd Edition); Chapter- 7
References: Archibold and Lipsey: A Mathematical Treatment of Economics; Chapter – 16

PAPER II: QUANTITATIVE TECHNIQUES FOR ECONOMICS -I

GROUP A: STATISTICS-I

Full Marks- 50

Minimum Number of Lectures 70

1. **DATA PRESENTATION:** Statistical data, Classification and presentation, Population and sample, Collection of data, Variable and attribute, Frequency distribution, Diagrammatic representation of frequency distribution, Ogive.
TEXT-Goon, Gupta & Dasgupta-Basic Statistics (1999)
Chapters- 2, 3

2. **DESCRIPTIVE STATISTICS:** (i) Measures of Central tendency: Arithmetic mean, Median and mode (for both grouped and ungrouped data) – Comparison of mean, median and mode, Geometric mean and harmonic mean, Composite mean.
TEXT- Goon, Gupta & Dasgupta – Chapter - 4

(ii) Index number: Fixed Base and Chain Base Index – Laspeyres, Paasche, Fisher and cost of living index number.
Goon, Gupta & Dasgupta, Chapter- 14.

(iii) Measures of Dispersion: Range, Mean deviation and standard deviation, Quartile deviation, Measures of relative dispersion, Curve of concentration
TEXT-- Goon, Gupta & Dasgupta, Chapter- 5

(iv) Measures of Skewness and Kurtosis
TEXT- Goon, Gupta & Dasgupta, Chapter- 6

3. **ANALYSIS OF BIVARIATE DATA:** Simple correlation and simple regression – Properties and methods of calculation
TEXT: (i) Goon, Gupta & Dasgupta – Basic Statistics, Chpater-9

4. **Time Series:** Trend, Polynomial trend & Logistic trend, Seasonal Variation, Methods Moving Average.

REFERENCES: Goon, Gupta & Dasgupta –Basic Statistics.

- (i) N.G. Das – Statistical Method [Vol. I], Chapters- 1, 2, 4, 5, 6, 7, 9
- (ii) N.G. Das – Statistical Method [Vol. II], Chapter- 17
- (iii) Nagar & Das – Basic Statistics [2nd Edition], Chapters- 3, 4, 5, 6, 7

GROUP B: MATHEMATICAL ECONOMICS I

Full Marks- 50

Minimum Number of Lectures -70

1. Sets: (i) Set Operations (ii) Finite and infinite sets (iii) Mapping of Set (iv) Ordered Sets (v) Linear point Sets.
TEXT: (i) Chiang & Wainwright – Fundamental Methods of Mathematical Economics (4th Edition)
Chapter – 2 [Section 2.3, 2.4]
REFERENCE: (i) Mukherji & Pandit – Mathematical Methods of Economic Analysis
Chapter – 1
(ii) Mehta & Madnani – Mathematics for Economists (2001) - Chapter-I
(iii) Archibald & Lipsey- A Mathematical Treatment of Economics
2. Elements of Calculus: Functions, Limits & Continuity, Total derivatives, Partial derivatives, Homogenous function, Euler’s theorem, Simple integration, Definite integrals.
TEXT: (i) Chiang & Wainwright –
Chapters – 7, 8 (Section 8.4), 12 (Section 12.6), 14 (section 14.3).
(ii) Silberberg – The Structure of Economics
Chapter – 3 (Section 3.2, 3.3, 3.4, 3.6, 3.7)
(iii) Mukherji & Pandit - Chapters – 5, 9.
(iv) Mehta & Madnani - Chapters- 8, 9, 10.
(v) Allen – Mathematical Analysis for Economists (1987) - Chapter – 4
3. Maxima & Minima of functions (constrained or unconstrained) – Economic Applications – Utility Functions, Revenue Function, Cost Function, Profit Function, Maximising Excise – Tax & Revenue.
TEXT: (i) Chiang & Wainwright –
Chapters– 7, [Section 7.2], 9 [Section 9.1 9.2, 9.3, 9.4], 12 [Section 12.5]
(ii) Silberberg, Chapters – 4 (Section 4.1, 4.2, 4.4), 6 (Section 6.3, 6.4, 6.5)
(iii) Mehta & Madnani, Chapters- 6, 7
(iv) Allen – Chapters – 5, 6
4. Linear Algebra: Determinants – Minors and cofactors, Properties of determinant, Jacobian theorem, Matrix
TEXT: Chiang & Wainwright, Chapter – 4 & 5
REFERENCE: Mehta & Madnani, Chapter-5
5. Some simple applications of mathematics on economic theory.
 - a. Domain & Range of the Cost function
 - b. Finding Marginal revenue (MR) function from Average revenue (AR) function
 - c. Application of Matrix and Determinant to market models, National Income Determination and IS –LM model.
 - d. Given the production function $Q=f(K, L)$, Write the set notation of an isoquant
 - e. Given the average revenue function justify whether AR & MR curves are continuous

PART- II
PAPER III: ECONOMIC THEORY-II
GROUP A: MICROECONOMICS-II

Full Marks- 50

Minimum Number of Lectures 70

1. Monopoly and Monopolistic Competition:
 - a) Monopoly: Sources of monopoly power, Index of monopoly power, Equilibrium with single plant, multiple plants, Price discrimination, Constrained revenue maximisation, Natural monopoly, Effects of different types of location, Dead-weight loss of monopoly.
TEXT: Pindyck & Rubinfeld: Chapter 10, 11
REFERENCES: i) Dominick Salvatore: Chapter 10
ii) Handerson & Quandt: Chapter 7 (sec.7-1, 7-2 &7-3)
iii) Maddala & Miller: Chapter 11, 12 (pg.344-347,352-362)
 - b) Monopolistic Competition: Features, Short-run & Long-run equilibrium, Excess Capacity.
TEXT: Ferguson & Gould & Lazear: Chapter 12
REFERENCES: Pindyck & Rubinfeld: Chapter 12 (sec.12:1)
Maddala & Miller: Chapter 13 (pg.374-381)
2. Oligopoly:

Conjectural Variation & Reaction functions, Analysis of Cournot & Stackelberg Collusive Oligopoly & Prisoners' dilemma in cartel stability, Nash equilibrium of game.

TEXT: i) Pindyck & Rubinfeld: Chapter 12, 13 (sec.13:1-13:5)
ii) Salvatore: Chapter 11, 12
iii) Gravelle & Resse: (For Conjectural Variation & Reaction function)
3. Factor Pricing:

Derived demand for a single input & multiple input in competitive & imperfectly competitive markets, Firm demand & industry demand, Adding up problem, Collective bargaining & exploitation, Rent & Quasi-rent.

TEXT: Ferguson & Gould: Chapter 14, 15
Maddala & Miller: Chapter 15 (sec.15.1-15.6, pg.431-444)
Chapter 16 (sec.16.1-16.6, pg.462-474)

REFERENCES: i) Koutsoyanis (2nd ed.): Chapter 21
ii) Ryan & Pearce (For Economic Rent only, pg.230-233)
4. Welfare Economics:

Conditions of Pareto optimality in pure exchange & in production, Optimality of perfect competition, Externalities & market failure.

Text: Ferguson & Gould: Chapter 17
Maddala & Miller: Chapter 19

REFERENCES: i) Koutsoyanis: Chapter 23 (pg.526-538)
ii) Ryan & Pearce: (pg.371-378)
5. Choice under Uncertainty: only basic concepts
Describing Risk, Preferences towards risk, Reducing risk, the demand for Risky assets-the trade-off between Risk & Return.
TEXT: Pindyck & Rubinfeld: Chapter 5

GROUP B: MACROECONOMICS - II

Full Marks: 50

Minimum No. of Lectures-70

1. Microfoundation of Macrobehaviour:

(i) Consumption function: Keynes and the consumption function, Secular stagnation & the consumption puzzle, Inter-temporal choice, Permanent income hypothesis and life-cycle hypothesis.

Text: Mankiw: Macroeconomics (6th edition); Ch-16

Reference: W.H. Bon- Macroeconomic Theory & Polity (2nd edition); Ch-10

(ii) Investment function: Fixed investment; The neoclassical approach, Tobin's q , Residential investment, Accelerator model of investment.

Text: Mankiw (6th edition); Ch-17

Reference: Dornbusch, Fischer & Startz- Macroeconomics (9th edition); Ch-14

(iii) Demand for Money: Transaction demand for money, Precautionary demand for money, Speculative demand for money, The Regressive Expectations Model, The portfolio balance approach, The Baumol-Tobin models of Cash Management, Money as a consumer's and producer's good.

Text: i) W.H. Branson; Ch-12

References: ii) Mankiw; Ch-18

iii) Dornbusch, Fischer & Startz (9th edition); Ch-15

(iv) The supply of money: Definitions of Money supply (M_1 , M_2 , M_3 , M_4), Credit creation by commercial banks, Money multiplier, Instruments of monetary policy.

Text: i) Mankiw; Ch-18

References: ii) Dornbusch, Fischer & Startz (9th edition); Ch-16

iii) Soumyen Sikdar – Macroeconomics; Ch-6

2. Inflation:- Definition and functions of money, Quantity theory of money, Money, prices and inflation, Inflation and interest rates; The fisher effect, Future money and current prices, The social costs of inflation.

Text: Mankiw; Ch-4

3. Aggregate supply and Phillips curve; Inflation, unemployment and Phillips curve, Shift of Phillips curve, Causes of inflation, Disinflation and sacrifice ratio, Rational expectation and painless disinflation.

Text: i) Mankiw (2nd edition); Ch-13

References: ii) Abel & Bernanke (4th edition); PP – 441-445 (for shifting of Phillips curve)

iii) S. Sikdar (OUP); Ch-9; PP – 131-137

4. Recent Developments in Macroeconomics:

Rational expectations, Real business cycle, New Keynesian Economics:

Text: i) Mankiw; Ch-19

Reference: ii) Soumyen Sikdar; Ch-11 (Page 160-164)

**PAPER IV: DEVELOPMENT ECONOMICS AND ISSUES ON ECONOMIC
DEVELOPMENT**

GROUP A: DEVELOPMENT ECONOMICS

Full Marks- 50

Minimum Number of Lectures - 70

1. **MEANING OF DEVELOPMENT:** Issues of Economic development – Traditional approach (Economic & non-economic – Per capita income, Physical quality life index, Basic needs approach, Sustenance, Self esteem, Freedom from servitude) - Capability approach – Human development index – Gender related development index.
TEXT- Thirlwall: Growth & Development (5th Edn), Chapter–1 (Pages 9, 22, 51, 52-54)
REFERENCES: (i) Meier: Leading Issues in Economic Development
Chapter – 1 (1.A, 1.B.1)
(ii) Todaro & Smith: Economic Development
Chapter 1 (pages 49-56), Chapter – 2 (pages 80-97)

2. **STAGES OF GROWTH:** Rostow and Marx in comparison with Rostow
TEXT- Thirlwall: Chapter 1 (page 61)

REFERENCES: (i) ROSTOW – The Stages of Economic Growth – A non-Communist Manifesto.
(ii) Meier: Chapter – IIA (page 69)

3. **SOURCES OF ECONOMIC GROWTH** (i) Labour: Demographic issues, Theory of demographic transition, Trap models and their criticism (Nelson’s and Leibenstein’s models may be discussed in brief.)

(ii) Capital: Capital accumulation, Capital-output ratio, Technological progress - Concepts of Hicks, Harrod, Solow, Neutral Technological progress (no graphical/Mathematical exposition is required)

REFERENCE: (i) Hayami- Development Economics [2001], Chpaters-3 (Section 3.1.1, 3.1.2, 3.3.3), 5 (Section 5.2.3
(ii) Thirlwall: Chapter–4 (page 112, 114), Chapter – 6 (page 163, 164)
4. **PROBLEMS OF LABOUR SURPLUS ECONOMY:** Lewis model and its criticism, Nurkse’s idea of disguised saving potential, Concept of labour surplus (disguised unemployment), Sen’s Model Labour migration and Harris-Todaro model.
TEXT- Thirlwall, Chapter - 3 (page 96-100 & page 104-110)
REFERENCE:

- (i) Nurkse – The Problems of Capital formation in underdeveloped countries (selected portion)
 - (ii) Dewett & Wadhawan- Economics of Growth and Development [1977], Chapter- 32, Page- 429-430
 - (iii) Sen: ‘Peasants & Dualism with or without surplus labour’ in Journal of Political Economy (1966), Oct,
 - (iv) K. Basu–The Less Developed Economy (1984), Chapters: 5, 6
 - (v) K. Basu – Analytical Development Economics
Chapter – 7 (Section 7.2)
Chapter – 8 (Section 8.1, 8.2, 8.3)
 - (vi) Reprinted in Agarwala & Singh – The Economics of Under Development (1988) – “Economic Development with Unlimited Supplies of Labour” by W. A. Lewis (Page No. 400- 413), Published in - The Manchester School, May1954
5. DEVELOPMENT STRATEGY: Balanced vs. unbalanced growth, Choice of technique in labour surplus economy.
TEXT- Thirlwall– Chapter - 7 (page 180-187)
 6. POVERTY INEQUALITY AND STANDARD OF LIVING: Measurement and issues, Lorenz curve, Gini Coefficient, Headcount index, Poverty gap, Inequality and development, Sen’s Index.
REFERENCE: Debraj Roy – Development Economics [1999],
Chapters – 6 (Sections - 6.2, 6.3), 8 (Sections - 8.2, 8.3)
 7. THE ENVIRONMENT AND DEVELOPMENT: Sustainable development, common property resources (tragedy of the commons), Kuznet’s curve.
REFERENCE: R.N. Bhattacharyya
Environment Economics (selected portion)

GROUP B: ISSUES ON ECONOMIC DEVELOPMENT

Full Marks: 50

Minimum No. of Lectures - 70

1. Trade and Development:-

- (a) Trade as an engine of growth – The historical perspective, Static and dynamic gains from trade, Trade as a rent for surplus, Some criticisms of Traditional Free Trade Theory in the context of the experience of developing nations

Text: Thirlwall; Growth and Development with special reference to Developing Economics (8th edition) Ch-16 (Pages: 514-515, 518-523, 542-544)

- (b) Arguments for protection – The Infant industry argument for tariff protection

Text: i) Salvatore: International Economics (3rd edition) Ch-9; (Pages: 258-260)

References: ii) Sodersten & Read; International Economics (3rd edition) Ch-9; (Pages: 256-261)

iii) Debraj Ray; Development Economics Ch-17 (Pages: 669-674)

- (c) Terms of Trade and Economics Development – various terms of trade (net barter and income terms of trade) – Prebisch-Singer thesis and terms of trade debate

Text: i) Thirlwall (8th edition); Ch-16, Pages: 548-552

Reference: ii) Salvatore (3rd edition); Ch-11; (Pages: 317-321)

- (d) Alternative Industrialisation Strategy for developing nations – Import Substitution and Export promotion

Text: i) Salvatore (3rd edition); Ch-11; (Pages: 326-329)

References: i) Thirlwall (8th edition); Ch-16, Pages: 547-548

ii) Todaro and Smith: Economic Development (8th edition); Ch-13 (Pages: 556-567)

- (e) Multinational Corporations and Foreign Direct Investment – FOI and FPI; Two main forms of FDI (Greenfield investment & merger or acquisition); MNCs – main features, implications for the host nations; Foreign aid (concept only)

Text: i) Salvatore; Ch-12; (Pages: 354-360)

References: ii) Todaro and Smith (8th edition); Ch-15

iii) S. Sikdar; Contemporary Issues in Globalisation (2nd edition); Ch-4
(Pages: 79-100) (OUP)

iv) B. Dasgupta Structural adjustment, Global trade and the new political
economy of development –(Pages: 195-203) (Vistaar Publications)

(2) Development and Underdevelopment as a historical process:-

(a) Dependency theory of Baran and Frank

(b) The concept of unequal exchange

Text: Debesh Bhattacharya; The Political Economy of Development (Pages: 135-143)

Reference: Thirlwall; Ch-7, Pages: 252-255

(3) Planning for Development:-

Rationale for planning, The instances of market failure and the role of state; Govt.
failure and Resurgent preference for markets over planning; Decentralisation (concept
only)

Text: i) Todaro and Smith (8th edition); Ch-16 (Pages: 680-684, 694-698, 700-702,
714-719)

References: i) Pindyck & Rubinfeld; Microeconomics (6th edition) Ch-16; (Pages:
607-609)

ii) Meier & Rauch; Leading Issues in Economic Development (7th edition) (Pages:
426-433)

(4) Evolution of the International Economy:-

The origin, objectives and functions of IMF and World Bank; The Third World Debt
crisis and the structural adjustment policies adopted by IMF; The new International
Economic Order

Text: i) Salvatore (3rd edition); Ch-11; (Pages: 331-337); Ch-20

Reference: ii) Sodersten and Read (3rd edition); Ch-31

iii) Todaro and Smith (8th edition); Ch-14

PART - III

PAPER – V: INTERNATIONAL ECONOMICS & PUBLIC FINANCE

Full Marks- 100

Minimum Number of Lectures 130

GROUP – A: INTERNATIONAL ECONOMICS

Full Marks- 60

Minimum Number of Lectures 80

Group – I: Pure Theory of International Trade: (Full Marks -30)

1. The Theory of comparative Advantage and gains from Trade:-

- a. The concept of Production possibility curve (PPC) and community indifference curve – autarky equilibrium
- b. Gains from trade and its decomposition into gains due to exchange and gains due to specialisation.
- c. Adam Smith and Absolute advantage theory of trade.
- d. David Ricardo and the theory of comparative advantage – The concept of opportunity cost, Derivation of PPC of trading nation with constant opportunity cost, Gains from trade; Determining the relative price of tradables after trade in terms of relative demands and relative supply curves, Derivation of world PPC, country size and gains from trade, limitations of the Ricardian model.
- e. Offer curve – Definition, Derivation of offer curve, Determination of elasticity of offer curve at a point on offer curve, Determination of free trade Terms of Trade (TOT) in terms of offer curve (multiple equilibria should be avoided), Concept of trade indifferent curve only, Ricardian offer curve (concept only)

TEXT – i) Caves, Frankel & Jones – World Trade and Payments (9th Edition), Chapter – 3, 5 (Page 71-81)

ii) Salvatore – International Economics (8th Edition) – Chapter – 2 (Page 33-47), 3 (Page – 59-73), 4 (Page 89-110)

REFERENCES: i) Krugman & Obstfeld: International Economics – Theory and Policy (8th Edition) – Chapter- 3 (Page: 30 -39)

ii) Sodersten-International Economics (2nd Edition) – Chapter – 1

iii) M. Chacholiades - International Economics – Chapter – 2, 3

2. Comparative Advantage in the Heckscher-Ohlin Trade model:

- a. The basic assumptions of the model Factor abundance defined in physical terms and by factor price
- b. Heckscher – Ohlin Theorem (Statement & Proof in terms of physical and price definition of factor abundance)
- c. A comparison of comparative advantage in the Ricardian and in the Heckscher-Ohlin Trade model.

TEXT – i) Salvatore – Chapter – 5 (Page 115-129)

ii) Sodersten – Chapter – 3

REFERENCES: i) Chacholiades - Chapter – 4

3. **Commodity and Factor prices under trade – Factor price Equalisation:**
- Factor price equalization theorem, Basic concept of factor intensity reversal.
 - Empirical testing of H-O theorem : - Leontief paradox
TEXT : Solvatore - Chapter – 5 (Pages 129-134, 138-144, 149-154)
REFERENCES – i) Sodersten – Chapter – 6
ii) Chacholiades - Chapter – 4, 5 (Page 90-97)

Group – II Trade Policy (Full Marks -15)

4. **Instruments of Restrictive trade:-**

- Effect of tariff (import duty) and quota – some partial aspects
- Tariff versus Quota and their equivalence
- Effective rate of protection (the concept only)
TEXT : Solvatore - Chapter – 8 (Page – 235 -247)
Chapter – 9 (Page 274 – 276)
REFERENCES - i) Sodersten – Chapter – 13 (Page 169-172), 14 (Page 187 -190)
ii) Chacholiades - Chapter – 7 (Page 141-146)
Chapter – 9 (Page 194 – 200)

5. **Tariff under optimal market conditions:-**

- Tariffs and income distribution: The Stolper – Samuelson theorem
- Tariff, the terms of trade and domestic prices – the Metzler’s paradox (concept only)
- Tariff and the national income – the optimum tariff
TEXT : Solvatore - Chapter – 8 (Page – 249-271)
REFERENCES – i) Sodersten – Chapter – 13 (Page 173-183)
ii) Chacholiades - Chapter – 7 (Page 146-161)

Group – III - The Balance of Payments and International Economic Policy: (Full Marks -15)

6. **The Balance of payment: (BOP)**

- BOP accounting principles; Current and capital account transaction, Statistical discrepancy
- Equilibrium and Disequilibrium in the BOP – autonomous and accommodating transactions
TEXT: Sodersten – Chapter – 23
REFERENCE – Salvatore - Chapter – 13 (Page – 429-444)

7. **The determination of national income in an open economy - Foreign trade multiplier (with and without repercussion effect)**

TEXT: Caves, Jones and Frankel (9th Edition) – Chapter 17 (Page 315-328)

8. **Theory of Exchange Rate, Devaluation and Trade Balance:**

- Imports, Exports and foreign exchange market - demand – supply framework.
- Different types of exchange rate system, fixed and flexible (clean or managed float) exchange system. (Concepts only)
- The working of fixed and flexible exchange rate system with special reference to – (i) foreign exchange risk, (ii) Inflation

- d. Concept of Internal and external balance - The swan diagram – Expenditure switching and expenditure adjustment policies – Marshall – Lerner condition for successful devaluation of home currency. (Statement and implication only, no rigorous proof is required)

TEXT – i) Caves, Jones & Frankel: Chapter-18 (Page 335-345, 360-361)

ii) Salvatore: Chapter – 16 (Page – 547-555, 572-573);

Chapter – 17 (Page 588-600, 611-613)

Chapter – 20 (Page 695-705 – 528)

REFERENCE: i) S. Sikder (Principles of Macroeconomics); Chapter–7(Page 97-104)

ii) Sodersten : Chapter – 22

GROUP B: PUBLIC FINANCE

Full Marks- 40

Minimum Number of Lectures 55

1. Economic Role of the State: Public goods and market failure, Distinction between private goods and public goods, Samuelson’s solution for the optimal provision of public goods, Lindahl’s Equilibrium for optimal tax sharing, Free rider problem, Justification of Government expenditure in defense, education, health, infrastructure.

TEXT -Musgrave & Musgrave – Public finance in theory & Practice [2004] (page 3-5), Chapters – 10, 11

REFERENCE (i) Due & Friedlaender – Govt. Finance (1997) –Chapters- 3, 8 (Page 179-194)

(ii) Maddala & Miller – Microeconomics, Chapter – 19 (page 545)

(iii) S.R. Chakraborty – Microeconomics, (page 690-691)

(iv) Ambar Ghosh & Chandana Ghosh – The Economics of Public Sector [2008]

(v) Ulbirsch – Public finance (2004) (on justification of Govt. Exp.) Chapters- 4, 16, 19 (page 342)

2. Principles of Taxation: Ability to pay and benefit approaches, Horizontal and vertical equity.

TEXT -Musgrave & Musgrave

REFERENCE: Ulbirsch – Public Finance – Chapter – 6 (Page 117 -118, 172-175)

3. Direct and indirect Taxation: Effect of Income tax on work effort, Saving and risk bearing, Incidence of sales and excise tax – excess burden of indirect taxation, value added tax.

TEXT -Musgrave & Musgrave, (page 235-236, 280-281)

REFERENCE: (i) Due & Friedlaender (spite effect & purchase effect, page 354), (sales tax, page375), (Taxation on capital gains, page 262)

(i) Ghosh & Ghosh- chapter 6

(ii) Ulbrich – chapter-8 (page 164)

4. Public debt: Internal and external burden- Different concepts of deficit in Government's budget – Burden of internal public debt, Burden of public debt on future generation, External public debt, comparison of internal and external public debt.

TEXT -Musgrave & Musgrave – Chapter 32

REFERENCES: (i) Ghosh & Ghosh – Chapter 9 (Page 270-293)

(ii) Abel & Bernanke – Macroeconomics – Chapter 15

PAPER- VI: INDIAN ECONOMIC PROBLEMS AND PLANNING

Full Marks: 100

Minimum No. of Lectures:126

1. Structure of Indian Economy: Changes in the pattern of inter sectoral distribution of national income, changes in the pattern of occupational structure.(A)
2. Agriculture: Farm size and productivity- controversial Indian experience, Marketable Surplus and Marketed Surplus of food grains, prices and acreage elasticity of Marketed Surplus (B). Different aspects of New Agricultural Strategy (Green Revolution)-output, employment and distribution of income & wealth(C). Land Reforms. Food security and government intervention in food grains. Problems of Institutional Credit in Indian agriculture. Impact of globalization in Indian agriculture.(D)
3. Growth and Stagnation in Indian Industries.(E). State initiative in industrialization. Evaluation of Industrial policies including Licensing Policies, Role, Performances and Weaknesses of Public Sector Industries. New Industrial policy in the post- globalization era. Disinvestment Policy.(F)
4. Unemployment and Poverty: Nature and types of unemployment in India. Problems related to the measurement of Unemployment in India (G). Problems related to female and child labour in India (H). Poverty in India-Different estimates of poverty (I). Evaluation of different policies and programmes aiming at eradication of poverty.(J)
5. Money and Capital Market: Reserve Bank of India and Indian Money market. Monetary policies in recent years. Relation between Money Market and Capital Market in India. Nationalization of commercial Banks and problems associated with Nationalized Banking Sector. Reforms in Monetary Sector and Capital Market in India.(K)
6. Indian Public Finance: Trends problems and Reforms. Central-State allocation of Financial Resources- Controversies, Recommendation of different committees in resolving this controversy (L).
7. External Sector- Composition, Direction, and Trend in Foreign Trade. Problems related to the Balance of Payments. EXIM Policies and other recent measures (such as convertibility of rupee) to improve BOP (M).
8. Rationale of Planning and Mixed Economy. Five Year Plans- Objective, achievement and failure. Financing of Five Year Plans (N): Special focus on 2nd, 7th and 9th plans.

References:

1. Poverty and Development. Primit Chaudhuri
2. Contribution to India's Economic Analysis. Bhagwati & Chakrabarty
3. Some Problems of India's Economic Policy. Ed. By Charan Wadhva.
4. Development Planning; Indian Experiences, S. Chakrobarty.
5. Planning in India. Desai
6. Recent Development and Future Prospect: Ed. By Lucas & Papanek.
7. Employment, Technology & Development. A.K.Sen.
8. The Indian Economy: Bimal Jalan.
9. On Economic Liberalisation. Deepak Nayar.
10. Planning for Industrialisation. Bhagwati & Desai.
11. Political Economy of Indian Agriculture. Ashok Rudra.
12. Essays in Honour of Manmohan Singh. Montek S. Ahluwalia.

Advance Reading

- A.1. Changing Structure of the Indian Economy. VKRV. Rao, Indian Economy since Independence. Ed by Uma Kapila
- A.2. Savings behaviour in India and Implication for Policy- IZ Bhatti & MTR Sharma, Some Problems of India's Economic Policy. Ed. By Charan Wadhva.
- B.1. A Note on elasticity of marketable Surplus of a Subsistence crop. Raj Krishna, Some Problems of India's Economic Policy. Ed. By Charan Wadhva.
- B.2. A Note on elasticity of marketable Surplus of a Subsistence crop-A Comment Vahid.F. Nowshirvani. Some Problems of India's Economic Policy. Ed. By Charan Wadhva.
- C.1. Poverty and Development. Primit Chaudhuri
- C.2. Distribution and Growth in Indian Agriculture. J. Mohan Rao. The Indian Economy. The Indian Economy Major Debates since Independence- Ed by Terence J. Byres
- C.3. Green Revolution and the Peasants- a study of income distribution in Punjab Agriculture. E.P.W. May15&22, 1982
- C.4. India's Political Economy, 1947-2004 – Francine. R. Frankel
- C.5. Fifty Years of Indian Agriculture Vol-I, Production and Self-sufficiency, Abdul Ali Mohammad & Hifazur Rahaman.
- D.1. Challenges of Globalisation: Bibek Debroy (Ed).
- D.2. India's Agricultural Development Policy- A. Vaidyanathan, E.P.W. May13,2000
- E.1. Industrial policy and Industrial Performance in India. The Indian Economy. Isher Judge Ahluwalia. Recent Development and Future Prospect: Ed. By Lucas & Papanek.
- E.2. Structural Retrogression in the Indian Economy since mid sixties, S.L.Shetty. E.P.W. Annual Number-1978.
- F.1. Challenges of Globalisation: Bibek Debroy (Ed).
- G.1. Peasant Dualism With or Without Surplus Labour, A.K.Sen Journal of Political Economy 7, October, 1966.
- H.1. India Economic Development and Social Opportunity, Dreze and Sen

- I.1. Poverty in India, Gustav Papanek. Recent Development and Future Prospect: Ed. By Lucas & Papanek.
- J.1. Poverty Alleviation Programme in India some Issues of Macro Policy. S.C. Jain, Indian Journal of Agriculture Economics July-Sept 2000.
- K.1. Monetary and Financial Sector Reform in India. Y. Venugopal Reddy
- K.2. Institutional changes in Indian Capital Market. Ajay Shah. E.P.W. June 16-23 1997.
- L.1. essays on Development Strategy- Regional Disparities and Centre-State Financial Relation in India. CH Hanumantha Rao.
- M.1. The External Sector: the Problem Areas, Jayati Ghosh. Recent Development and Future Prospect: Ed. By Lucas & Papanek.
- M.2. India's Balance of Payments Problem. C. Rangarajan. Recent Development and Future Prospect: Ed. By Lucas & Papanek.
- M.3. Foreign Trade and Trade Policies. V.R. Panchamukhi. Recent Development and Future Prospect: Ed. By Lucas & Papanek.
- N.1. Development Planning: The Indian Experiences, S. Chakrabarty.
- N.2. Plan Documents (different years) Planning Commission of India.

Text Books:

1. Indian Economy: Mishra & Puri
2. Indian Economy: R. Dutt & K.P.M. Sundharam.
3. Indian Economy: A.N. Agarwal

PAPER VII: QUANTITATIVE TECHNIQUES FOR ECONOMICS - II

Full Marks- 100

Total Number of Lectures 125 to 130

Group A: STATISTICS - II

Full Marks- 50

Minimum Number of Lectures 70

1. PROBABILITY THEORY AND DISTRIBUTION: (i) Elements of Probability Theory: Sample space & events, Meaning of probability, Classical definition, Addition rule, Multiplication rule, Theorems of total probability – Mutually and non-mutually exclusive events, Conditional and statistical independence, Limitations of the classical definition, An axiomatic approach, Bayes' formula, Random variables, Probability mass and density functions, Marginal and conditional distributions, Expectations and variances of random variables (for random sampling with or without replacements)
TEXT – Goon, Gupta & Dasgupta – Basic Statistics (1999) – Chapter – 7
(ii) Some Univariate Probability Distributions: Binomial distribution, Poisson distribution, Normal distribution, Standard Normal distribution – mean, variance, moment generating function (MFG), Skewness and kurtosis, Limiting forms of Binomial and Poisson distribution, Importance of normal distribution in statistics.

TEXT- Goon, Gupta & Dasgupta – Chapter- 8

2. ELEMENTARY SAMPLING THEORY: Populations and sample, Parameter and statistic, Random sampling, Practical methods of drawing random samples, Random sampling measures, Sampling distribution of expectation and standard error.

TEXT- Goon, Gupta & Dasgupta – Basic Statistics - Chapter 11

3. CLASSICAL STATISTICAL INFERENCE: Basic concepts of Estimation, desirable properties of estimators, Unbiasedness, Minimum variance, Simple methods of point estimation, Confidence interval, Testing of hypothesis, P-value, Type 1 and Type 2 errors, Simple application of tests for mean and variance of a Univariate normal population

TEXT: Goon, Gupta & Dasgupta – Basic Statistics – Chapter – 12

REFERENCES:

- (i) Mathai & Rathi – Probability and Statistics
- (ii) Nagar & Das - Basic Statistics, Chapters – 8, 9, 10
- (iii) N.G. Das – Statistical Methods, (Vol II) [2005] – Chapters- 11, 12, 13, 14
- (iv) Gupta & Kapoor – Fundamentals of Mathematical Statistics [Vol I] [1980]
Chapters – 4, 5, 7, 8, 15, 16

: MATHEMATICAL ECONOMICS II

Full Marks- 50

Minimum Number of Lectures - 70

1. Static equilibrium analysis and comparative statics:
Meaning of partial and general equilibrium, Comparative static analysis using Cramer's rule
Applications: Simple Keynesian and IS-LM models, Rybczynski theorem and Stolper – Samuelson theorem (Liner Model)
TEXT – Chiang – Fundamental Methods of Mathematical Economics (3rd edition)
Ch. 3
REFERENCES: i) Silberberg – The Structure of Economics (2nd edition) – Ch. 15
(Sec 15.3, 15.4)
ii) Caves & Jones – International Economics (9th edition) – Ch. 7
(Appendix)
iii) Archibald & Lipsey – A Mathematical Treatment of Economics (3rd edition), Ch. 16
2. Integration and dynamic analysis:
 - a. Techniques of integration (definite and indefinite integral)
Applications: from marginal function to total function, consumer's surplus, producer's surplus, investment and capital formation, present value
TEXT - Chiang – Ch. 13
 - b. First order and second order differential equations:
Applications: Time path of price and quantity in competitive markets, time path of income in simple Keynesian model, Stability analysis, Time path of inflation and unemployment rates, Solow growth model.
TEXT - Chiang – Ch. 14, 15
REFERENCES: Henderson & Quandt – Microeconomic Theory (3rd edition) – Ch. 6
 - c. First order and second order difference equations: Applications: Cobweb model, Market model with inventory, Samuelson's multiplier – accelerator interaction model, inflation and unemployment in discrete case.
TEXT - Chiang – Ch. 16, 17
REFERENCES: Henderson & Quandt – Ch. 6
3. Input – output analysis
A two sector Leontief static open model, Assumptions, Output solutions, Hawkins – Simon conditions and its economic interpretations, Linear programming interpretation, Consumption possibility Locus, Price system in LSOM.
TEXT–Dorfman, Samuelson & Solow–
Linear Programming & Economic Analysis–Ch. 9
REFERENCE: Chiang – Ch. 5 (Sec 5.7)

4. Linear Programming (LP)

The LP problem, Duality and economic interpretation, simplex method, complementary slackness relationship of primal and dual.

Application: Diet problem, Transportation problem

TEXT – Chiang – Ch. 19, 20

REFERENCES – i) Silberberg – Ch. 15

ii) Chakraborty & Ghosh – Linear Programming – Ch. 1, 5, 7, 8

5. Game Theory – Structure of Game, Pay off matrix, Two person zero sum game, saddle point, Pure strategy, Mixed strategy.

REFERENCES – i) Pindyck and Rubinfeld – Micro economics

ii) Varian – Intermediate Micro economics.

APER VIII: INDIAN ECONOMIC HISTORY, COMPUTER APPLICATION & PROJECT WORK

Full Marks- 100

Minimum No. of Lectures - 130

GROUP A: INDIAN ECONOMIC HISTORY & COMPUTER APPLICATION

Full Marks- 50 (25+25)

Minimum Number of Lectures - 70

GROUP A –I : INDIAN ECONOMIC HISTORY

Impact of British rules with special reference to (i) De-industrialization (ii) Commercialization of agriculture (iii) Economic drain.

1. Aspect of British Imperial policy: i) Land policy, ii) Railways & irrigation iii) Policy of discriminating protection

REFERENCES: i) Dharma Kumar (ed.) Cambridge Economic History [Vol II]
ii) V. B. Singh (ed.) Economic History of India
iii) Dhires Bhattacharyya A Concise Economic History of India
iv) Amiya Bagchi Private Investment in India (1900-1939)

GROUP A – II : COMPUTER APPLICATION

1. Basics of computer application in economics
2. Operating systems, data entry
3. Use of application software for solving statistical and quantitative problems in economics.

Evaluation will be made on the basis of practical examination at the end of the course, i.e. in the third year and on the basis of continuous evaluation.

References: 1. Computers Today: D.H. Sanders

2. Analysis of Economic Data: Gary Koop

GROUP B: PROJECT WORK

Full Marks - 50 (40 + viva 10)

1. Problem searching and literature survey
2. Methodology (sampling design and survey as per need)
3. Data Analysis
4. Findings and Interpretation
5. Viva

Evaluation will be on the basis of report preparation on the relevant topic to be submitted at the end of third year and viva voce in lieu of continuous assessment as in the case of computer application.

**Topics of Project Work (To be undertaken in a specific Municipal
Ward/Gram Panchayet)**

1. The Economic role of public bodies (Govt. and Semi Govt.) in preventing contamination of arsenic in ground water.
2. Efficacy of Govt. measures for the economic benefit of the people living below the poverty line.
3. Literacy rate among economically deprived section of the society
4. Issues in primary education
5. Evaluation of NREGA programme during last financial year.
6. Socio economic appraisal of the landless agricultural worker
7. Alternative sources of employment in rural and urban economy
8. Inequalities in income distribution among different income groups.
9. Economic effect of degradation in environment daily life
10. Annual household income of minority community
11. Micro finance as development strategy