

**SYLLABUS**  
**BSc Economics Honours**  
**FIRST YEAR, FIRST SEMESTER**

[NOTE: Figures in brackets indicate the no. of lectures]

| Paper-1 - Group A                                                                                | MICRO ECONOMICS– I                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | (Full marks 50) |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Module – 1    <u>Introduction to Price Theory</u></b>                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| <b>Unit – 1</b>                                                                                  | Scarcity and choice; choice by command and choice by market; the role of prices in a market economy.                                                                                                                                                                                                                                                                                                                                                                                   | (02)            |
| <b>Unit – 2</b>                                                                                  | Elementary concepts of demand, supply and price determination; stability of equilibrium (the Walrasian approach); elasticities of demand and supply.                                                                                                                                                                                                                                                                                                                                   | (06)            |
| <b>Unit – 3</b>                                                                                  | Comparative static.                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | (02)            |
| <b>TOTAL LECTURES</b>                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>(10)</b>     |
| INTRODUCTION TO PROJECT WORK (Introducing ‘COREL DRAW’ software to draw diagrams)                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | (08)            |
| <b>References:</b>                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 1. Pindyck ,Rubinfeld and Mehta : Microeconomics Pearson Education Asia, 6th Edition, Chapter 2  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 2. Maddala and Miller: Microeconomics- Theory and Applications, McGraw – Hill, Chapters 1,2,3    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 3. Varian H.R: Intermediate Microeconomics, East– West Press,7th Edition, Chapters 2, 5          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| <b>TOTAL PERIODS</b>                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>(18)</b>     |
| <b>Module – 2    <u>Theory of Consumer Behaviour – Alternative Approaches</u></b>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| <b>Unit – 1</b>                                                                                  | Cardinal utility; law of diminishing marginal utility; derivation of the Marshallian demand curve and its elasticity implications.                                                                                                                                                                                                                                                                                                                                                     | (04)            |
| <b>Unit – 2</b>                                                                                  | Ordinal utility – axioms; indifference curves, budget constraint and consumer’s equilibrium; comparative static: price – consumption, income-consumption and Engel’s curves and demand elasticities; price-effect: substitution and income-effects; classification of commodities: normal, inferior and Giffen goods. Some applications: Buying and selling, intertemporal choice.                                                                                                     | (20)            |
| <b>Unit – 3</b>                                                                                  | Revealed Preference approach: Strong and weak axioms of revealed preference – properties of demand function – Index numbers.                                                                                                                                                                                                                                                                                                                                                           | (06)            |
| <b>TOTAL LECTURES</b>                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>(30)</b>     |
| INTRODUCTION TO PROJECT WORK (Introducing ‘COREL DRAW’ software to draw diagrams)                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | (08)            |
| <b>References:</b>                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 1. Varian H.R: Intermediate Microeconomics,7th Edition, Chapters 3, 4, 5, 6, 7, 8, 9, 10         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 2. Pindyck ,Rubinfeld and Mehta : Microeconomics, 6th Edition, Chapters 3,4                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 3. Gravelle and Rees : Microeconomics Pearson Education Asia , 2 <sup>nd</sup> Edition Chapter 3 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| <b>TOTAL PERIODS</b>                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>(38)</b>     |
| <b>Module – 3    <u>Introduction to the theory of firms – Production and Cost analysis</u></b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| <b>Unit – 1</b>                                                                                  | Technology and technological efficiency – General concept of Production function – Concepts of total product, average product and marginal product –Return to factor and returns to scale - Isoquants and diminishing rate of factor substitution – Elasticity of Substitution –Some examples of technology (fixed proportion, perfect substitute, Cobb – Douglas Production Function, CES Production Function), General concept of homogenous production function and its properties. | (10)            |
| <b>Unit – 2</b>                                                                                  | Optimizing behaviour of firm: constrained output maximization, Constrained Cost minimization. Expansion path. Input demand and input demand function.                                                                                                                                                                                                                                                                                                                                  | (06)            |
| <b>Unit – 3</b>                                                                                  | Costs – Economic / Opportunity Cost and accounting cost, Concept of sunk cost — Time dimension of cost – Long run cost function-Relation between expansion path and long run total cost curve - Functional coefficient and shape of long run average cost. Cost in the short run – total cost – Fixed and variable cost – Marginal cost – Average cost – Derivation of short run cost— Relation between short run and long run cost. Multi-product firm and economies of scope.        | (14)            |
| <b>TOTAL LECTURES</b>                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>(30)</b>     |
| INTRODUCTION TO PROJECT WORK (Introducing ‘COREL DRAW’ software to draw diagrams)                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | (08)            |
| <b>References:</b>                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 1. Maddala and Miller: Microeconomics- Theory and Applications, Chapters 6, 7                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 2. Ferguson and Gould: Microeconomics , 6th Edition, Chapters 6, 7, 8                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 3. Varian H.R: Intermediate Microeconomics, East– West Press ,7th Edition, Chapters 18           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| 4. Pindyck, Rubinfeld and Mehta : Microeconomics, 6th Edition, Chapters 5, 6                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                 |
| <b>TOTAL PERIODS</b>                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>(38)</b>     |

| <b>Module – 1 <u>National Income Analysis</u></b>                                                |                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                  | Nature and scope of macroeconomics with emphasis on macroeconomic problems and policies - introduction to macro-economic data –circular flow of income- definitions of gross domestic product, gross and net national product, national and personal income, methods of national income accounting, saving-investment identity and role of unintended change in inventories (06) |
| <b>Unit – 2</b>                                                                                  | GNP deflator and its uses, cost of living and consumer price index, unemployment and GNP, measuring joblessness, Okun’s Law, national income and economic welfare. (06)                                                                                                                                                                                                          |
|                                                                                                  | <b>TOTAL LECTURES (12)</b>                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                  | INTRODUCTION TO PROJECT WORK (Introducing ‘EXCEL’ software to present data and diagram) (08)                                                                                                                                                                                                                                                                                     |
| <b>References:</b>                                                                               |                                                                                                                                                                                                                                                                                                                                                                                  |
| 1. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill), 9th Edition, Chapters 1, 2   |                                                                                                                                                                                                                                                                                                                                                                                  |
| 2. Blanchard: Macroeconomics (Pearson Education), 4th Edition, Chapters 2, 3                     |                                                                                                                                                                                                                                                                                                                                                                                  |
| 3. Soumen Sikdar: Principles of Macroeconomics (Oxford university Press), 1st Edition, Chapter 2 |                                                                                                                                                                                                                                                                                                                                                                                  |
|                                                                                                  | <b>TOTAL PERIODS (20)</b>                                                                                                                                                                                                                                                                                                                                                        |

| <b>Module – 2 <u>Basic Model Of Effective Demand And Income Determination</u></b>                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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| <b>Unit – 1</b>                                                                                     | Simple Keynesian Model – equilibrium, adjustment process and stability (with economic interpretation of the stability condition) – comparative static: expenditure multipliers without and with the government sector, paradox of thrift, SKM multiplier in an open economy. (12)                                                                                                                                                                                  |
| <b>Unit – 2</b>                                                                                     | IS – LM Model – commodity market equilibrium and the IS curve, money market equilibrium and the LM curve–macroeconomic equilibrium and the adjustment process, stability of equilibrium with explicit derivation of the stability condition-comparative static: fiscal policy, monetary policy (with special reference to interest rate overshooting) and policy mix, model under real balance effect - long run version of the model under price adjustment. (20) |
|                                                                                                     | <b>TOTAL LECTURES (32)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                     | INTRODUCTION TO PROJECT WORK (Introducing ‘COREL DRAW’ software to draw diagrams) (08)                                                                                                                                                                                                                                                                                                                                                                             |
| <b>References:</b>                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 1. Mankiw N.G: Macroeconomics (Worth Publishers), 5th Edition, Chapters 10, 11                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 2. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill), 9th Edition, Chapters 9, 10, 11 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3. Bernanke and Abel: Macroeconomics, 4th Edition Chapters 9                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 4. Blanchard: Macroeconomics (Pearson Education), 4th Edition, Chapters 3,4,5                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|                                                                                                     | <b>TOTAL PERIODS (40)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| <b>Module – 3 <u>Theories of Consumption and Investment Function</u></b>                         |                                                                                                                                                                                                                                                                        |
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| <b>Unit – 1</b>                                                                                  | Keynesian absolute income hypothesis, Kuznets’ empirical findings and consumption puzzle, Intertemporal optimization as basis for consumption function, Life cycle hypothesis, permanent income hypothesis, random walk hypothesis and their policy implications. (12) |
| <b>Unit – 2</b>                                                                                  | Neoclassical theory of business fixed investment, Stock market and Tobin’s q, Accelerator model of inventories. (08)                                                                                                                                                   |
|                                                                                                  | <b>TOTAL LECTURES (20)</b>                                                                                                                                                                                                                                             |
| <b>References:</b>                                                                               |                                                                                                                                                                                                                                                                        |
| 1. Mankiw N.G: Macroeconomics (Worth Publishers), 5th Edition, Chapters 16, 17                   |                                                                                                                                                                                                                                                                        |
| 2. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill), 9th Edition, Chapters 13, 14 |                                                                                                                                                                                                                                                                        |
| 3. Bernanke and Abel: Macroeconomics, 4th Edition, Chapter 4                                     |                                                                                                                                                                                                                                                                        |
|                                                                                                  | <b>TOTAL PERIODS (20)</b>                                                                                                                                                                                                                                              |

| <b>Module – 1 <u>Descriptive Statistics, Central Tendency and Dispersion</u></b>                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| <b>Unit – 1</b>                                                                                          | Data Presentation: Statistical Data – Classification and presentation, Population and Sample, Collection of Data – Variable and Attribute, Frequency Distribution – Diagrammatic representation of frequency distribution – Ogive. (08)                                                                                                                                                                                                                                                                 |
| <b>References:</b>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1. <b>Goon, Gupta and Dasgupta: Fundamentals of Statistics Volume-I, Chapters 1-3, 7th Rev. Ed. 1998</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. <b>Kenney and Keeping: Mathematics of Statistics, Volume-I, Chapters 1 and 2.</b>                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3. <b>Bowen and Starr: Basic Statistics for Business and Economics: Chapter 3.</b>                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Unit – 2</b>                                                                                          | Measures of Central Tendency and Dispersion with Applications: Central Tendency: Arithmetic Mean, Median and Mode (for both grouped and ungrouped data) – Comparison of Mean Median and Mode – Geometric and Harmonic Mean – Composite Mean. Index Numbers: their concept as weighted averages – Problems in the Construction of Index Numbers – Chain Index – Cost of Living Index Number (different formulae) - Wholesale Price Index and Cost of Living Index in India – Uses of Index Numbers. (15) |
|                                                                                                          | Dispersion: Range – Mean Deviation and Standard Deviation – Quartile Deviation - Measures of Relative Dispersion – Curve of Concentration, Measures of Skewness and Kurtosis. Measurement of Economic Inequality: Nature of Distribution of Income and Wealth – Gini Coefficient and Lorenz Curve. (10)                                                                                                                                                                                                 |
| <b>TOTAL LECTURES (33)</b>                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>References:</b>                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b><u>Central Tendency:</u></b>                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1. <b>Goon, Gupta and Dasgupta: Volume-I, Chapters 4 - 6.</b>                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. <b>Kenney and Keeping: Mathematics of Statistics, Volume-I, Chapter 5.</b>                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3. <b>Bowen and Starr: Basic Statistics for Business and Economics: Chapters 4 and 17.</b>               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b><u>Dispersion:</u></b>                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 1. <b>Goon, Gupta and Dasgupta: Volume-II, Chapter 6.</b>                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 2. <b>Human Development Reports, Technical Appendix: 1991-1996</b>                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3. <b>Nagar and Das: Basic Statistics, 2nd Ed. Chapter 14</b>                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                          | PROJECT CLASSES (Problem Solving exercises) (15)                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>TOTAL PERIODS (48)</b>                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| <b>Module – 2 <u>Introduction to Probability Theory</u></b>    |                                                                                                                                                                                                                                                                                                                                                                        |
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| <b>Unit – 1</b>                                                | Probability Theory: Elements of Probability Theory – Sample Space – Events – Meaning of Probability – Classical Definition of Probability – The Addition Rule – The Multiplication Rule – Theorems of Total Probability – Conditional Probability and Statistical Independence – Limitations of the Classical Definition – An Axiomatic Approach – Baye’s Formula (20) |
| <b>Unit – 2</b>                                                | Random Variables and related elementary concepts: Random Variables – Probability Mass and Density Functions – Expectation and Variance of Random Variables (for Random Sampling with and without replacements). (07)                                                                                                                                                   |
| <b>TOTAL LECTURES (27)</b>                                     |                                                                                                                                                                                                                                                                                                                                                                        |
| <b>References:</b>                                             |                                                                                                                                                                                                                                                                                                                                                                        |
| 1. <b>Goon, Gupta and Dasgupta: Volume-I, Chapters 7 and 8</b> |                                                                                                                                                                                                                                                                                                                                                                        |
|                                                                | PROJECT CLASSES (Problem Solving exercises) (10)                                                                                                                                                                                                                                                                                                                       |
| <b>TOTAL PERIODS (37)</b>                                      |                                                                                                                                                                                                                                                                                                                                                                        |

| <b>Module – 1 Preliminaries and Basic Concepts</b>                                                                               |                                                                                                                                                                                                                          |
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| <b>Unit – 1</b>                                                                                                                  | Nature of Development economics: economy, society and values; broad features of underdevelopment; distinction between growth and development, brief outline of entitlement approach and human development paradigm. (08) |
| <b>Unit – 2</b>                                                                                                                  | Development and economic reform: some basic issues. (08)                                                                                                                                                                 |
| <b>TOTAL LECTURES</b> (16)                                                                                                       |                                                                                                                                                                                                                          |
| INTRODUCTION TO PROJECT WORK (Introducing 'POWER POINT' software for seminar presentation ) (08)                                 |                                                                                                                                                                                                                          |
| <b>References:</b>                                                                                                               |                                                                                                                                                                                                                          |
| 1. <b>Todaro and Smith : Economic Development (Pearson Education): Chapters 1and 2</b>                                           |                                                                                                                                                                                                                          |
| 2. <b>Thirwall A.P : Growth and Development (Palgrave McMillan): Chapter 2</b>                                                   |                                                                                                                                                                                                                          |
| 3. <b>Fukuda-Parr and Shiva Kumar: Readings in Human Development (Oxford University Press) 2nd Edition: Chapters 1.1,1.2,2.9</b> |                                                                                                                                                                                                                          |
| 4. <b>Amit Bhaduri and Depak Nayar: The Intelligent Person's Guide to Liberalization, Penguin Books, Chapters 1, 6</b>           |                                                                                                                                                                                                                          |
| 5. <b>Debraj Ray: Development Economics ( Oxford University Press): Chapters 2.2,2.3</b>                                         |                                                                                                                                                                                                                          |
| 6. <b>Amartya Sen: Development as Freedom: Chapter 2</b>                                                                         |                                                                                                                                                                                                                          |
| <b>TOTAL PERIODS</b> (24)                                                                                                        |                                                                                                                                                                                                                          |

| <b>Module – 2 Population Growth and Economic Development</b>                                                |                                                                                                                                                                         |
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| <b>Unit – 1</b>                                                                                             | Population growth and the quality of life - Facts about World population - Effects of population growth on the process of development. (12)                             |
| <b>Unit – 2</b>                                                                                             | Demographic transition theories - the causes of high fertility in developing countries: the Malthusian and household models - the concept of 'optimum' population. (16) |
| <b>TOTAL LECTURES</b> (28)                                                                                  |                                                                                                                                                                         |
| INTRODUCTION TO PROJECT WORK<br>(Use of 'EXCEL' and 'POWER POINT' software for seminar presentation) (08)   |                                                                                                                                                                         |
| <b>References:</b>                                                                                          |                                                                                                                                                                         |
| 1. <b>Todaro and Smith : Economic Development (Pearson Education): Chapter 7</b>                            |                                                                                                                                                                         |
| 2. <b>Ray Debraj : Development Economics (Oxford University Press) Chapter 9</b>                            |                                                                                                                                                                         |
| 3. <b>Berg: Economic Growth and Development: McGraw Hill, International Edition: Chapters 7.3.3 , 7.3.4</b> |                                                                                                                                                                         |
| <b>TOTAL PERIODS</b> (36)                                                                                   |                                                                                                                                                                         |

| <b>Module – 3 Inequality and Poverty</b>                                                     |                                                                                                                                                                                                                      |
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| <b>Unit – 1</b>                                                                              | Definition of economic inequality – measures of inequality; Inequality, income and growth: the inverted- U hypothesis and its empiricism. (07)                                                                       |
| <b>Unit – 2</b>                                                                              | Poverty – the conceptual issues: overall expenditure or item-by-item consumption, absolute or relative, temporary or chronic, households or individuals; different measures of poverty: a comparative analysis. (10) |
| <b>TOTAL LECTURES</b> (17)                                                                   |                                                                                                                                                                                                                      |
| INTRODUCTION TO PROJECT WORK (Use of 'POWER POINT' software for seminar presentation) (08)   |                                                                                                                                                                                                                      |
| <b>References</b>                                                                            |                                                                                                                                                                                                                      |
| 1. <b>Todaro and Smith : Economic Development (Pearson Education): Chapter 6</b>             |                                                                                                                                                                                                                      |
| 2. <b>Sen Amartya : Inequality Reexamined (Oxford University Press)</b>                      |                                                                                                                                                                                                                      |
| 3. <b>Ray Debraj : Development Economics (Oxford University Press): Chapters 6,7 and 8.2</b> |                                                                                                                                                                                                                      |
| <b>TOTAL PERIODS</b> (25)                                                                    |                                                                                                                                                                                                                      |

# FIRST YEAR SECOND SEMESTER

Paper-3 – Group A

MICRO ECONOMICS –II

(Full marks 50)

| <b>Module – 1 <u>Market Morphology</u></b>                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                    | Perfectly Competitive Market: Assumptions – Market Demand – Demand curve for an individual firm Supply function: Time dimension of supply function – very short Period, short period and long period – concept of external economies and diseconomies – Commodity Market Equilibrium – Short period (run) equilibrium of firm and industry – Long run supply curve – Constant, increasing and decreasing cost industry – consumer’s and producer’s surplus – Efficiency of Competitive market – Effects of tax – subsidy and price control. (14) |
| <b>Unit – 2</b>                                                                                                    | Monopoly -- Sources of Monopoly power- Average Revenue and Marginal Revenue – Profit maximization – Effects of Tax – Price discrimination: First, Second and Third Degree – Two part tariff – Multiple plant monopolist –Concept of monopoly power – Mark up pricing — Social Costs of monopoly power and dead-weight loss – Natural monopoly and its regulation - Monopoly equilibrium under sales maximization; comparison between profit maximization and sales maximization (12)                                                             |
| <b>Unit – 3</b>                                                                                                    | Monopolistic Competition: Assumptions – Product differentiation and Demand curve – Concept of Industry group – Equilibrium of the firm – Excess capacity and its interpretation —A simple location model of product differentiation (Hotelling’s model). (10)                                                                                                                                                                                                                                                                                    |
| <b>TOTAL LECTURES</b> (36)                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| INTRODUCTION TO PROJECT WORK (use of ‘COREL DRAW’ software) (08)                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>References:</b>                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 1. Pindyck, Rubinfeld and Mehta: Microeconomics (Pearson Education Asia), 6th Edition, Chapters 7,8,9,10,11        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 2. Ferguson and Gould: Microeconomics, 6th Edition, Chapters 9,10,11,12                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 3. Varian H.R: Intermediate Microeconomics, East– West Press,7th Edition, Chapters 22, 24, 25                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 4. Sen, Anindya: Microeconomics- Theory and Applications (Oxford University Press) 2nd Edition, Chapters 8,9,10,12 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>TOTAL PERIODS</b> (44)                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| <b>Module – 2 <u>Market for Inputs</u></b>                                                        |                                                                                                                                                                                                                    |
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| <b>Unit – 1</b>                                                                                   | Competitive Factor Markets – Demand for factor – One input case – Several Inputs – Market demand curves – Derivation of labour supply curve - Equilibrium in a Competitive factor market – Adding–up problem. (12) |
| <b>Unit – 2</b>                                                                                   | Factor demand in imperfect competition – Single input case – several inputs – exploitation and role of trade union – Rent and Quasi-rent. (08)                                                                     |
| <b>TOTAL LECTURES</b> (20)                                                                        |                                                                                                                                                                                                                    |
| INTRODUCTION TO PROJECT WORK (use of ‘COREL DRAW’ software) (08)                                  |                                                                                                                                                                                                                    |
| <b>References:</b>                                                                                |                                                                                                                                                                                                                    |
| 1. Pindyck, Rubinfeld and Mehta: Microeconomics (Pearson Education Asia), 6th Edition, Chapter 13 |                                                                                                                                                                                                                    |
| 2. Ferguson and Gould: Microeconomics, 6th Edition, Chapters 14, 15                               |                                                                                                                                                                                                                    |
| 3. Maddala and Miller: Microeconomics, Edition2006, Chapters 15, 16, 17                           |                                                                                                                                                                                                                    |
| 4. Varian H.R: Intermediate Microeconomics, East– West Press,7th Edition, Chapters 9.8            |                                                                                                                                                                                                                    |
| <b>TOTAL PERIODS</b> (28)                                                                         |                                                                                                                                                                                                                    |

| <b>Module – 1</b>                                                                                   |                                                                                                                          | <b><u>Aggregate Demand and Aggregate Supply</u></b> |             |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------|
| <b>Unit – 1</b>                                                                                     | Demand Side of the economy: Construction of the AD curve from the IS-LM Model– economic analysis of its slope and shifts |                                                     | (10)        |
|                                                                                                     |                                                                                                                          | <b>TOTAL LECTURES</b>                               | <b>(10)</b> |
|                                                                                                     | PROJECT CLASSES and Problem Solving                                                                                      |                                                     | (05)        |
| <b>References:</b>                                                                                  |                                                                                                                          |                                                     |             |
| 1. Mankiw N.G: Macroeconomics (Worth Publishers), 5th Edition, Chapter 11                           |                                                                                                                          |                                                     |             |
| 2. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill) ,9th Edition, Chapters 5, 10, 11 |                                                                                                                          |                                                     |             |
|                                                                                                     |                                                                                                                          | <b>TOTAL PERIODS</b>                                | <b>(15)</b> |

| <b>Module – 2</b>                                                                             |                                                                                                                                                                                                                                                                | <b><u>Supply Side of the Economy</u></b> |             |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------|
| <b>Unit – 1</b>                                                                               | Unemployment: Job loss, job finding and natural rate of unemployment; Job search and frictional unemployment. Wage rigidity and structural unemployment: minimum wage, union and collective bargaining, efficiency wage.                                       |                                          | (10)        |
| <b>Unit – 2</b>                                                                               | Basic concept of aggregate supply curve...the long run as vertical aggregate supply curve and the short run as horizontal aggregate supply curve; full employment equilibrium and unemployment equilibrium in terms of the AD-AS model and adjustment process. |                                          | (12)        |
|                                                                                               |                                                                                                                                                                                                                                                                | <b>TOTAL LECTURES</b>                    | <b>(22)</b> |
|                                                                                               | PROJECT CLASSES and Problem Solving                                                                                                                                                                                                                            |                                          | (05)        |
| <b>References:</b>                                                                            |                                                                                                                                                                                                                                                                |                                          |             |
| 1. Mankiw N.G : Macroeconomics (Worth Publishers), 5th Edition, Chapters 6, 9                 |                                                                                                                                                                                                                                                                |                                          |             |
| 2. Dornbusch, Fisher and Startz : Macroeconomics (Tata McGraw-Hill),9th Edition, Chapters 5,7 |                                                                                                                                                                                                                                                                |                                          |             |
| 3. Blanchard: Macroeconomics (Pearson Education), 4th Edition, Chapters 6, 7                  |                                                                                                                                                                                                                                                                |                                          |             |
| 4. Bernanke and Abel: Macroeconomics, 4th Edition Chapter 9                                   |                                                                                                                                                                                                                                                                |                                          |             |
|                                                                                               |                                                                                                                                                                                                                                                                | <b>TOTAL PERIODS</b>                     | <b>(27)</b> |

| <b>Module – 3</b>                                                                             |                                                                                                                                                                                                                                                                                   | <b><u>Aggregate Supply Curve and Phillips Curve</u></b> |             |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------|
| <b>Unit – 1</b>                                                                               | Alternative models of derivation of the aggregate supply curve; analysis of short run and long run effects of shocks under adaptive expectation.                                                                                                                                  |                                                         | (18)        |
| <b>Unit – 2</b>                                                                               | Phillips curve as supply side relation, short run and long run trade off between inflation and unemployment and traditional concept of sacrifice ration, types of inflation. Basic concept of rational expectation and irrelevance of the traditional concept of sacrifice ratio. |                                                         | (15)        |
|                                                                                               |                                                                                                                                                                                                                                                                                   | <b>TOTAL LECTURES</b>                                   | <b>(33)</b> |
|                                                                                               | INTRODUCTION TO PROJECT WORK (Use of 'POWER POINT' software for seminar presentation )                                                                                                                                                                                            |                                                         | (08)        |
| <b>References:</b>                                                                            |                                                                                                                                                                                                                                                                                   |                                                         |             |
| 1. Mankiw N.G: Macroeconomics (Worth Publishers), 5th Edition, Chapter 13                     |                                                                                                                                                                                                                                                                                   |                                                         |             |
| 2. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill),9th Edition, Chapters 5, 6 |                                                                                                                                                                                                                                                                                   |                                                         |             |
| 3. Blanchard Macroeconomics (Pearson Education), 4th Edition, Chapters 8                      |                                                                                                                                                                                                                                                                                   |                                                         |             |
|                                                                                               |                                                                                                                                                                                                                                                                                   | <b>TOTAL PERIODS</b>                                    | <b>(41)</b> |

| <b>Module – 1 <u>Univariate Probability Distributions</u></b> |                                                                                                                                                                                    |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                               | Univariate Probability Distributions: Binomial, Poisson, Hypergeometric, Normal and Standard Normal Distribution – Mean Variance, Skewness and Kurtosis. (17)                      |
| <b>Unit – 2</b>                                               | Generating Functions and Limiting Forms: Moment Generating Functions - Limiting forms of Binomial and Poisson Distributions, importance of Normal Distribution in Statistics. (10) |
|                                                               | <b>TOTAL LECTURES (27)</b>                                                                                                                                                         |
|                                                               | PROJECT CLASSES:                                                                                                                                                                   |
|                                                               | Problems on Probability and Distributions (10)                                                                                                                                     |
|                                                               | Computer Training on Data Representation using EXCEL (10)                                                                                                                          |
| <b>References:</b>                                            |                                                                                                                                                                                    |
|                                                               | <b>1. Goon, Gupta and Dasgupta: Volume-I, Chapters 7 and 8</b>                                                                                                                     |
|                                                               | <b>2. Bowen and Starr: Chapters 5, 7 and 8.</b>                                                                                                                                    |
|                                                               | <b>TOTAL PERIODS (47)</b>                                                                                                                                                          |

| <b>Module – 2 <u>Bivariate Analysis</u></b> |                                                                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                             | Elementary Analysis of Linear Correlation: Covariance, Coefficient of Simple Correlation – Properties and the method of calculation, Concept of rank correlation – Spearman’s Rank Correlation. (10)     |
| <b>References:</b>                          |                                                                                                                                                                                                          |
|                                             | <b>1. Goon, Gupta and Dasgupta: Volume-I, Chapter 10.</b>                                                                                                                                                |
| <b>Unit – 2</b>                             | Analysis of Bivariate Data: Bivariate Frequency Distribution – Bivariate Data and Scatter Diagram – Joint Probability Distribution – Idea of Independence – Marginal and Conditional Distributions. (08) |
|                                             | <b>TOTAL LECTURES (18)</b>                                                                                                                                                                               |
|                                             | PROJECT CLASSES :                                                                                                                                                                                        |
|                                             | Problem solving (10)                                                                                                                                                                                     |
|                                             | Statistical Analysis using EXCEL (10)                                                                                                                                                                    |
| <b>References:</b>                          |                                                                                                                                                                                                          |
|                                             | <b>1. Goon, Gupta and Dasgupta: Volume-I, Chapters 9 and 10 (selected sections).</b>                                                                                                                     |
|                                             | <b>TOTAL PERIODS (48)</b>                                                                                                                                                                                |

| <b>Module – 1 <u>Analytical Core and Development Index</u></b>                                                 |                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                | Rostow's stages of growth; Structuralist approach: the Lewis model and the Hariss-Todaro model; structural disequilibrium and inflation-a simple Kaleckian model of a dual economy. (10)                                                                        |
| <b>Unit – 2</b>                                                                                                | Alternative concepts of economic development: income-based approach and capability-based approach; index construction and indices of development including human development index; development experience of less developed countries in the recent past. (06) |
|                                                                                                                | <b>TOTAL LECTURES</b> (16)                                                                                                                                                                                                                                      |
|                                                                                                                | INTRODUCTION TO PROJECT WORK : (Use of 'POWER POINT' software for seminar presentation) (08)                                                                                                                                                                    |
| <b>References:</b>                                                                                             |                                                                                                                                                                                                                                                                 |
| 1. <b>Todaro and Smith: Economic Development (Pearson Education) Chapter 2</b>                                 |                                                                                                                                                                                                                                                                 |
| 2. <b>Ray Debraj: Development Economics (Oxford University Press) Chapters 2.2, 2.3, 10.3</b>                  |                                                                                                                                                                                                                                                                 |
| 3. <b>Thirwall A.P: Growth and Development (Palgrave McMillan) Chapter 2 , 3 (Pg 115-120)</b>                  |                                                                                                                                                                                                                                                                 |
| 4. <b>Kaushik Basu: Analytical Development Economics (Oxford University Press):2nd Edition, Chapters 4,7,8</b> |                                                                                                                                                                                                                                                                 |
| 5. <b>Human Development Report, 1995,1999</b>                                                                  |                                                                                                                                                                                                                                                                 |
|                                                                                                                | <b>TOTAL PERIODS</b> (24)                                                                                                                                                                                                                                       |

| <b>Module – 2 <u>Analytical Core And Basic Strategies of Economic Development (2)</u></b> |                                                                                                                                 |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                           | Underdevelopment as a coordination failure: multiple equilibria and low-income equilibrium trap- the theory of 'big-push'. (07) |
| <b>Unit – 2</b>                                                                           | Strategies of economic development: balanced versus unbalanced growth- choice of technique. (09)                                |
|                                                                                           | <b>TOTAL LECTURES</b> (16)                                                                                                      |
|                                                                                           | INTRODUCTION TO PROJECT WORK :<br>(Use of 'COREL DRAW' and 'POWER POINT software for seminar presentation) (08)                 |
| <b>References:</b>                                                                        |                                                                                                                                 |
| 1. <b>Todaro and Smith: Economic Development (Pearson Education): Chapter 5</b>           |                                                                                                                                 |
| 2. <b>Thirwall A.P: Growth and Development (Palgrave McMillan) Chapters 9 and 12</b>      |                                                                                                                                 |
|                                                                                           | <b>TOTAL PERIODS</b> (24)                                                                                                       |

| <b>Module – 3 <u>Development Policy Making and the Role of the State</u></b>                                         |                                                                                                                                                                               |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                      | The nature of and rationale for development planning - the crisis in planning: the problems of implementation and plan failure - decentralization and role of the state. (06) |
| <b>Unit – 2</b>                                                                                                      | Government failures and the resurgent preference for market over planning- role and limitations of the market in LDCs. (06)                                                   |
|                                                                                                                      | <b>TOTAL LECTURES</b> (12)                                                                                                                                                    |
|                                                                                                                      | INTRODUCTION TO PROJECT WORK :<br>(Use of 'POWER POINT' software for seminar presentation) (08)                                                                               |
| <b>References:</b>                                                                                                   |                                                                                                                                                                               |
| 1. <b>Todaro and Smith: Economic Development (Pearson Education): Chapter 16</b>                                     |                                                                                                                                                                               |
| 2. <b>Meier and Rauch: Leading issues in Economic Development (Oxford University Press) Chapter IX.A.</b>            |                                                                                                                                                                               |
| 3. <b>Amit Bhaduri and Deepak Nayar: The Intelligent Person's Guide to Liberalization, Penguin Books, Chapter 5.</b> |                                                                                                                                                                               |
| 4. <b>Hyami: Development Economics (Oxford University Press):Chapter 8</b>                                           |                                                                                                                                                                               |
|                                                                                                                      | <b>TOTAL PERIODS</b> (20)                                                                                                                                                     |



**SYLLABUS**  
**BSc Economics Honours**  
**SECOND YEAR, THIRD SEMESTER**

[NOTE: Figures in brackets indicate the no. of lectures]

| <b>Paper-5 - Group A</b>                                                                                                         | <b>MICRO ECONOMICS– III</b>                                                                                                                                                                                                                          | <b>(Full marks 50)</b> |
|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| <b>Module – 1    <u>Choice under Uncertainty</u></b>                                                                             |                                                                                                                                                                                                                                                      |                        |
| <b>Unit – 1</b>                                                                                                                  | Expected utility theorem and attitude towards risk Utility function and expected utility; Risk preference and risk aversion; Concept of risk premium and certainty equivalence.                                                                      |                        |
| <b>Unit – 2</b>                                                                                                                  | Applications , Demand for risky assets: trade off between risk and return; Reducing risk: Fair insurance; Insurance with asymmetric information: moral hazard, adverse selection (concepts only)                                                     |                        |
|                                                                                                                                  | <b>TOTAL LECTURES</b>                                                                                                                                                                                                                                | <b>(15)</b>            |
|                                                                                                                                  | INTRODUCTION TO PROJECT WORK                                                                                                                                                                                                                         | (08)                   |
| <b>References:</b>                                                                                                               |                                                                                                                                                                                                                                                      |                        |
| 1. Pindyck Rubinfeld and Mehta :Microeconomics; Pearson Education, 5 <sup>th</sup> Edition Chapter 5                             |                                                                                                                                                                                                                                                      |                        |
| 2. Anindya Sen: Microeconomics (OUP),2 <sup>nd</sup> Edition Chapter 15, Section 15.1-15.4                                       |                                                                                                                                                                                                                                                      |                        |
| 3. Varian: Intermediate Microeconomics East-West Press, 6 <sup>th</sup> Edition, Chapter 12, chapter 13, section 13.1            |                                                                                                                                                                                                                                                      |                        |
|                                                                                                                                  | <b>TOTAL PERIODS</b>                                                                                                                                                                                                                                 | <b>(23)</b>            |
| <b>Module – 2    <u>Theory of Oligopoly</u></b>                                                                                  |                                                                                                                                                                                                                                                      |                        |
| <b>Unit – 1</b>                                                                                                                  | Simultaneous Quantity Setting: Cournot Equilibrium; Simultaneous Price Setting: Bertrand Equilibrium and Bertrand Paradox, Product differentiation in Bertrand model                                                                                 |                        |
| <b>Unit – 2</b>                                                                                                                  | Quantity Leadership: Stackelberg Equilibrium; Price Leadership                                                                                                                                                                                       |                        |
| <b>Unit – 3</b>                                                                                                                  | Collusion and Formation of Cartel; Cartel Instability, Punishment strategies and Cartel Stability                                                                                                                                                    |                        |
| <b>Unit – 4</b>                                                                                                                  | Price Rigidity: Kinked Demand Curve Model                                                                                                                                                                                                            |                        |
|                                                                                                                                  | <b>TOTAL LECTURES</b>                                                                                                                                                                                                                                | <b>(25)</b>            |
|                                                                                                                                  | INTRODUCTION TO PROJECT WORK                                                                                                                                                                                                                         | (08)                   |
| <b>References :</b>                                                                                                              |                                                                                                                                                                                                                                                      |                        |
| 1. Varian: Intermediate Microeconomics: East-West Press, 6 <sup>th</sup> Edition, Chapter 27                                     |                                                                                                                                                                                                                                                      |                        |
| 2. Anindya Sen: Microeconomics: OUP, 2 <sup>nd</sup> Edition, Chapter 11                                                         |                                                                                                                                                                                                                                                      |                        |
| 3. Pindyck ,Rubinfeld and Mehta: Microeconomics; Pearson Education, 5 <sup>th</sup> Edition Chapter 12                           |                                                                                                                                                                                                                                                      |                        |
| Additional reading: 1.Gravelle and Rees- Microeconomics; Pearson Education, 2 <sup>nd</sup> Edition Chapter 12, Sections A and B |                                                                                                                                                                                                                                                      |                        |
|                                                                                                                                  | <b>TOTAL PERIODS</b>                                                                                                                                                                                                                                 | <b>(33)</b>            |
| <b>Module – 3    <u>General Equilibrium, Welfare Economics and Market Failure</u></b>                                            |                                                                                                                                                                                                                                                      |                        |
| <b>Unit – 1</b>                                                                                                                  | Pareto optimality and welfare ,2X2 Exchange: Pareto efficiency, Utility Possibility Frontier; 2X2 Production: Pareto efficiency, Production Possibility Frontier; Grand Utility Possibility Frontier; Competitive Equilibrium and Pareto efficiency. |                        |
| <b>Unit – 2</b>                                                                                                                  | Market failure and policies, Market Failure under externality: Coase Theorem, scope for government. Intervention: taxes and subsidies as instruments. Pareto optimality with public goods and market failure.                                        |                        |
|                                                                                                                                  | <b>TOTAL LECTURES</b>                                                                                                                                                                                                                                | <b>(25)</b>            |
|                                                                                                                                  | INTRODUCTION TO PROJECT WORK                                                                                                                                                                                                                         | (06)                   |
| <b>References:</b>                                                                                                               |                                                                                                                                                                                                                                                      |                        |
| 1. Varian: Intermediate Microeconomics; East-West Press, 6 <sup>th</sup> Edition Chapters 30, 31, 33                             |                                                                                                                                                                                                                                                      |                        |
| 2. Anindya Sen: Microeconomics; OUP, 2 <sup>nd</sup> Edition Chapter 14, Section 14.4-14.6                                       |                                                                                                                                                                                                                                                      |                        |
| 3. Pindyck Rubinfeld and Mehta: Microeconomics; Pearson Education, 5 <sup>th</sup> Edition Chapters 16 and 18.                   |                                                                                                                                                                                                                                                      |                        |
|                                                                                                                                  | <b>TOTAL PERIODS</b>                                                                                                                                                                                                                                 | <b>(31)</b>            |

| <b>Module – 1 <u>Economics of Money and Finance</u></b>                                                                               |                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                                       | Theories of money demand:<br>Baumol – Tobin model of demand for money,<br>Tobin's model of speculative demand for money.                                                                                                                                                                                                                                                |
| <b>Unit – 2</b>                                                                                                                       | Money supply<br>Asset Liability accounting of central bank and commercial bank, money multiplier theory and determination of money supply, selective instruments of monetary control, interest rate targeting or money supply targeting, growth rate of money supply and rate of inflation, nominal rate and real rate of interest, hyperinflation, costs of inflation. |
| <b>Unit – 3</b>                                                                                                                       | Public debt and deficit:<br>Traditional View of Government Debt,<br>Barro-Ricardo equivalence theorem,<br>Different perspectives on debt: stabilization, tax smoothing, intergenerational redistribution.                                                                                                                                                               |
|                                                                                                                                       | <b>TOTAL LECTURES (30)</b>                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                       | INTRODUCTION TO PROJECT WORK (06)                                                                                                                                                                                                                                                                                                                                       |
| <b>References:</b>                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                         |
| 1. Bernake and Abel: Macroeconomics (Pearson Education), 4 <sup>th</sup> Edition, Chapters 7, 15, section 15.1, 15.3, 15.4            |                                                                                                                                                                                                                                                                                                                                                                         |
| 2. N.Gregory Mankiw: Macroeconomics (Worth Publishers), 5 <sup>th</sup> Edition Chapter 4, Chapter 15, Sections 15.3-15.5, Chapter 18 |                                                                                                                                                                                                                                                                                                                                                                         |
| 3. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill), 8 <sup>th</sup> Edition, Chapters 15, 16, 18:sections 18.4,18.5   |                                                                                                                                                                                                                                                                                                                                                                         |
|                                                                                                                                       | <b>TOTAL PERIODS (36)</b>                                                                                                                                                                                                                                                                                                                                               |

| <b>Module – 2 <u>Theories of Business Cycles</u></b>                                                                         |                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                              | Real Business Cycle:<br>Technology shock, fiscal shock and propagation mechanism.                                                  |
| <b>Unit – 2</b>                                                                                                              | New Keynesian macroeconomics:<br>menu cost, staggering of wage and price,<br>Overlapping wage contract and co- ordination failure. |
|                                                                                                                              | <b>TOTAL LECTURES (15)</b>                                                                                                         |
|                                                                                                                              | INTRODUCTION TO PROJECT WORK (06)                                                                                                  |
| <b>References:</b>                                                                                                           |                                                                                                                                    |
| 1. N.Gregory Mankiw: Macroeconomics (Worth publisher), 5 <sup>th</sup> Edition Chapter 19 Sections 19.1, 19.2                |                                                                                                                                    |
| 2. Bernanke and Abel: Macroeconomics (Pearson Education), 4 <sup>th</sup> Edition, Chapter 10 Chapter 11, section 11.2.      |                                                                                                                                    |
| 3. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill), 8 <sup>th</sup> Edition, Chapter 20, Sections 20.5, 20.6 |                                                                                                                                    |
|                                                                                                                              | <b>TOTAL PERIODS (21)</b>                                                                                                          |

| <b>Module – 3 <u>Growth Economics</u></b>                                                        |                                                                                                                                                             |
|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                  | Classical full employment model:<br>Analysis of real sectors-factor market and loan market.                                                                 |
| <b>Unit – 2</b>                                                                                  | Solow (Neo- Classical) model of growth: model with population growth, steady state condition, golden rule of capital accumulation and dynamic inefficiency. |
| <b>Unit – 3</b>                                                                                  | Solow model with technological progress; growth accounting and Solow residual; issue of absolute and relative convergence.                                  |
| <b>Unit – 4</b>                                                                                  | Brief outline of endogenous growth – The A.K model                                                                                                          |
|                                                                                                  | <b>TOTAL LECTURES (20)</b>                                                                                                                                  |
|                                                                                                  | INTRODUCTION TO PROJECT WORK (06)                                                                                                                           |
| <b>References:</b>                                                                               |                                                                                                                                                             |
| 1. N. Gregory Mankiw: Macroeconomics (Worth Publishers), 5 <sup>th</sup> Edition Chapters 3,7, 8 |                                                                                                                                                             |
| 2. Bernanke and Abel: Macroeconomics (Pearson Education), 4 <sup>th</sup> Edition, Chapter 6     |                                                                                                                                                             |
|                                                                                                  | <b>TOTAL PERIODS (26)</b>                                                                                                                                   |

| <b>Module – 1 <u>Sampling Theory</u></b>                   |                                                                                                                                                                                                                                                                              |
|------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                            | Elementary Sampling Theory: Population and Sample – Parameter and Statistic – Random Sampling – Practical Methods of Drawing Random samples – Random sampling Numbers – Sampling Distribution – Standard Error and the Central Limit theorem(statement only) (12)            |
| <b>Unit – 2</b>                                            | Sampling Distributions: Sampling Distributions associated with Normal Population, Expectation and Standard Error of Sample Mean, Chi-Square Distribution, Student Distribution, F-Distribution (definition and important properties only) – Idea of degrees of freedom. (10) |
|                                                            | <b>TOTAL LECTURES (22)</b>                                                                                                                                                                                                                                                   |
|                                                            | TUTORIALS: PROBLEM SOLVING EXERCISES, PROJECT CLASSES (13)                                                                                                                                                                                                                   |
| <b>References:</b>                                         |                                                                                                                                                                                                                                                                              |
| 1. Goon, Gupta and Dasgupta: Volume-I, Chapter 13.         |                                                                                                                                                                                                                                                                              |
| 2. Mathai and Rathi: Probability and Statistics, Chapter 7 |                                                                                                                                                                                                                                                                              |
|                                                            | <b>TOTAL PERIODS (35)</b>                                                                                                                                                                                                                                                    |

| <b>Module – 2 <u>Classical Statistical Inference</u></b>                          |                                                                                                                                                                                                                                                                                                       |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                   | Basic concepts of estimation: – Desirable properties of estimators – Unbiasedness, Minimum Variance – Simple Methods of Point Estimation – Maximum Likelihood, Estimators and their properties – Maximum Likelihood estimation of the parameters of Binomial, Poisson and Normal Distributions . (11) |
| <b>Unit – 2</b>                                                                   | Testing of Hypotheses: Confidence Intervals – Testing of Hypothesis – p-Values – Type-I and Type –II Errors – Simple applications of tests for the Mean and Variance of a Univariate Normal Population. Non-parametric Tests. (11)                                                                    |
|                                                                                   | <b>TOTAL LECTURES (22)</b>                                                                                                                                                                                                                                                                            |
|                                                                                   | PROBLEM SOLVING EXERCISES, PROJECT CLASSES (10)                                                                                                                                                                                                                                                       |
| <b>References:</b>                                                                |                                                                                                                                                                                                                                                                                                       |
| 1. Goon, Gupta and Dasgupta: Volume-I, Chapters 14 and 15.                        |                                                                                                                                                                                                                                                                                                       |
| 2. Mathai and Rathi: Probability and Statistics, Chapter 9.                       |                                                                                                                                                                                                                                                                                                       |
| 3. Bowen and Starr: Basic Statistics for Business and Economics: Chapters 10, 11. |                                                                                                                                                                                                                                                                                                       |
|                                                                                   | <b>TOTAL PERIODS (32)</b>                                                                                                                                                                                                                                                                             |

|                                                                                                               |                                                                                                                                                                                                                     |
|---------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module – 1 <u>Input-Output Model Analysis and Project Appraisal</u></b>                                    |                                                                                                                                                                                                                     |
| <b>Unit – 1</b>                                                                                               | Input-output analysis: Its uses and general solution to input-output model; forecasting labour requirement, investment requirement and import requirement; backward and forward linkages; the Hirschman compliance. |
| <b>Unit – 2</b>                                                                                               | Financial appraisal, economic appraisal and social appraisal; Shadow prices for factors of production; distributional considerations in project appraisal; Equivalence between Little-Mirrlees and UNIDO approach.  |
|                                                                                                               | <b>TOTAL LECTURES (25)</b>                                                                                                                                                                                          |
|                                                                                                               | INTRODUCTION TO PROJECT WORK (06)                                                                                                                                                                                   |
| <b>References:</b>                                                                                            |                                                                                                                                                                                                                     |
| 1. Thirlwall A.P: <b>Growth and Development (Palgrave MacMillan), 7<sup>th</sup> Edition, Chapters 13, 10</b> |                                                                                                                                                                                                                     |
|                                                                                                               | <b>TOTAL PERIODS (31)</b>                                                                                                                                                                                           |

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|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module – 2 <u>Agricultural Economics: Land and Credit</u></b>                                                                                                                     |                                                                                                                                                   |
| <b>Unit – 1</b>                                                                                                                                                                      | Forms of land tenure, Efficiency of share tenancy: Marshall and Cheung’s analysis.                                                                |
| <b>Unit – 2</b>                                                                                                                                                                      | Rural credit market: Lender’s risk hypothesis, Personalized transaction and Monopolistic market, basic concept of inter-linkage in rural markets. |
|                                                                                                                                                                                      | <b>TOTAL LECTURES (20)</b>                                                                                                                        |
|                                                                                                                                                                                      | INTRODUCTION TO PROJECT WORK (06)                                                                                                                 |
| <b>References:</b>                                                                                                                                                                   |                                                                                                                                                   |
| 1. Kaushik Basu: <b>Analytical Development Economics (Oxford University Press), Chapter 12, Section 12. 1, 12.2; Chapter 13, Section 13.1, 13.2, Chapter 14, Sections 14.1, 14.2</b> |                                                                                                                                                   |
| 2. Debraj Ray: <b>Development Economics, Chapters 11, 12</b>                                                                                                                         |                                                                                                                                                   |
|                                                                                                                                                                                      | <b>TOTAL PERIODS (26)</b>                                                                                                                         |

|                                                                                                                                   |                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>Module – 3 <u>Labour and Unemployment</u></b>                                                                                  |                                                                                                                  |
| <b>Unit – 1</b>                                                                                                                   | Disguised unemployment: Characterization and policy implications (Sen’s Model)                                   |
| <b>Unit – 2</b>                                                                                                                   | Economics of child labour: Empirical context, Basu-Van model of multiple equilibria with altruism, policy issues |
| <b>Unit – 3</b>                                                                                                                   | Efficiency wage theory as explanation for wage rigidity and involuntary unemployment: A basic model              |
|                                                                                                                                   | <b>TOTAL LECTURES (20)</b>                                                                                       |
|                                                                                                                                   | INTRODUCTION TO PROJECT WORK (06)                                                                                |
| <b>References:</b>                                                                                                                |                                                                                                                  |
| 1. Amartya Sen: <b>Resources, Value and Development (Oxford University Press)</b>                                                 |                                                                                                                  |
| 2. Kaushik Basu: <b>Analytical Development Economics (Oxford University Press), Chapter 10, Section 10.1, 10.2, 10.3</b>          |                                                                                                                  |
| 3. Todaro and Smith: <b>Economic Development (Pearson Education), 8<sup>th</sup> Edition, Chapter 9, section on Child Labour.</b> |                                                                                                                  |
|                                                                                                                                   | <b>TOTAL PERIODS (26)</b>                                                                                        |

## SECOND YEAR, FOURTH SEMESTER

**Paper-7 - Group A MATHEMATICAL ECONOMICS - I (Full marks 50)**

| <b>Module – 1 <u>Optimization Technique</u></b>                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| <b>Unit – 1</b>                                                                                                                                                              | <b>Unconstrained Optimization:</b> General Structure, derivation of first order and second order conditions, envelope theorem.<br>Applications: Profit maximization in different markets.                                                                                                                                                                                                                                                                                  |
| <b>Unit – 2</b>                                                                                                                                                              | <b>Constrained Optimization:</b> General Structure with two independent variables, derivation of first order and second order conditions, envelope theorem.<br><b>Applications:</b> Utility maximization and derivation of demand function and some extensions of consumer behaviour including consumption-labour choice and intertemporal choice; cost minimization and derivation of factor demand function; Pareto optimality conditions without and with public goods. |
| <b>Unit – 3</b>                                                                                                                                                              | <b>Duality Approach:</b><br>A. Duality in the theory of consumer behaviour: Indirect Utility Function and Roy’s identity, expenditure function and its properties, derivation of Slutsky equation.<br>B. Properties of cost function and Shepard’s Lemma, duality between production and cost.<br>C. Properties of profit function and Hotelling’s Lemma, Properties of factor demand function under profit maximization, Slutsky equation for factor demands.             |
|                                                                                                                                                                              | <b>TOTAL LECTURES (45)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                              | INTRODUCTION TO PROJECT WORK (06)                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>References:</b>                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 1. Eugene Silberberg and Wing Suen: <i>The Structure of Economics: A Mathematical Analysis</i> (Irwin McGraw Hill), 3 <sup>rd</sup> Edition chapters 6, 7, 8,9,10.           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 2. Knut Sydsaeter and Peter J. Hammod: <i>Mathematics for Economic Analysis</i> (Pearson Education), Chapter 17, Chapter 18, sections 18.1-18.5.                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 3. Alpha C. Chiang and Kevin Wainwright: <i>Fundamental Methods of Mathematical Economics</i> (McGraw Hill International Edition), 4 <sup>th</sup> Edition, Chapters 11, 12. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 4. Gravelle and Rees: <i>Microeconomics</i> (Pearson Education), 2 <sup>nd</sup> Edition Chapter 14, section A                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|                                                                                                                                                                              | <b>TOTAL PERIODS (51)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

| <b>Module – 2 <u>Game Theory and its Applications</u></b>                                                        |                                                                                                                                                                                                 |
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| <b>Unit – 1</b>                                                                                                  | Two person zero sum game, concept of pure strategy and mixed strategy.                                                                                                                          |
| <b>Unit – 2</b>                                                                                                  | One shot game, concept of Nash equilibrium and method of dominance.<br>Applications: Cournot model, problem of prisoner’s dilemma and cartel instability, The Commons problem, strategic trade. |
| <b>Unit – 3</b>                                                                                                  | Sequential game and backward induction.<br>Application: Stackelberg equilibrium, time consistent macroeconomic policy.                                                                          |
|                                                                                                                  | <b>TOTAL LECTURES (20)</b>                                                                                                                                                                      |
|                                                                                                                  | INTRODUCTION TO PROJECT WORK (06)                                                                                                                                                               |
| <b>References:</b>                                                                                               |                                                                                                                                                                                                 |
| 1. Prajit K. Dutta: <i>Strategies and Games</i> , The MIT Press, Chapters 2, 3, 4, 5, 10.                        |                                                                                                                                                                                                 |
| 2. Bierman and Fernandez: <i>Game Theory with Economic Applications</i> , Pearson Education, Chapters 1, 6 and 8 |                                                                                                                                                                                                 |
| 3. Taha: <i>Operation research</i> , Pearson Education, Chapter 14, section 14.5                                 |                                                                                                                                                                                                 |
|                                                                                                                  | <b>TOTAL PERIODS (26)</b>                                                                                                                                                                       |

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|-------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|
| <b>Module – 1</b> <u>Comparative Advantage and International Equilibrium.</u> |                                                                                                                                                                           |                       |             |
| <b>Unit – 1</b>                                                               | Comparative advantage: Sources of comparative advantage (production and demand bias); gains from trade and decomposition.                                                 |                       |             |
| <b>Unit – 2</b>                                                               | Offer curve analysis: Construction of Offer curves, international equilibrium and determination of terms of trade, stability of equilibrium: Marshall – Lerner condition. |                       |             |
|                                                                               |                                                                                                                                                                           | <b>TOTAL LECTURES</b> | <b>(08)</b> |
|                                                                               | PROJECT WORK                                                                                                                                                              |                       | (02)        |
|                                                                               |                                                                                                                                                                           | <b>TOTAL PERIODS</b>  | <b>(10)</b> |

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|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------|
| <b>Module – 2</b> <u>Ricardian Model of Trade.</u> |                                                                                                                        |                       |             |
| <b>Unit – 1</b>                                    | One factor economy: production possibility frontier, relative demand and relative supply and autarkic terms of trade.  |                       |             |
| <b>Unit – 2</b>                                    | Trade in Ricardian world: determination of international terms of trade, complete specialization and gains from trade. |                       |             |
| <b>Unit – 3</b>                                    | Extensions of Ricardian model.                                                                                         |                       |             |
|                                                    |                                                                                                                        | <b>TOTAL LECTURES</b> | <b>(12)</b> |
|                                                    | PROJECT WORK                                                                                                           |                       | (02)        |
|                                                    |                                                                                                                        | <b>TOTAL PERIODS</b>  | <b>(14)</b> |

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| <b>Module – 3</b> <u>Specific Factor Model</u> |                                                                                                                                                                             |                       |             |
| <b>Unit – 1</b>                                | Basic model: prices, wages and labour allocation, relative prices and distribution of income.                                                                               |                       |             |
| <b>Unit – 2</b>                                | International trade in the specific factor model: resources and relative supply, trade and relative prices, the pattern of trade, income distribution and gains from trade. |                       |             |
|                                                |                                                                                                                                                                             | <b>TOTAL LECTURES</b> | <b>(15)</b> |
|                                                | PROJECT WORK                                                                                                                                                                |                       | (02)        |
|                                                |                                                                                                                                                                             | <b>TOTAL PERIODS</b>  | <b>(17)</b> |

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| <b>Module – 4</b> <u>Factor Endowment and trade: HO Model</u>                                                                                                  |                                                                                                                                                                                                                                                                          |                       |             |
| <b>Unit – 1</b>                                                                                                                                                | Definition of factor abundance, factor intensity ranking, one to one correspondence between commodity price ratio and factor price ratio (Stolper- Samuelson theorem), one to one correspondence between endowment ratio and production proportion (Rybscznski theorem). |                       |             |
| <b>Unit – 2</b>                                                                                                                                                | Difference in endowment ratio as source of comparative advantage, effects of trade on factor price and income distribution – factor price equalization; factor intensity reversal and factor price equalization.                                                         |                       |             |
| <b>Unit – 3</b>                                                                                                                                                | Empirical studies– Leontief Paradox.                                                                                                                                                                                                                                     |                       |             |
|                                                                                                                                                                |                                                                                                                                                                                                                                                                          | <b>TOTAL LECTURES</b> | <b>(30)</b> |
|                                                                                                                                                                | PROJECT WORK                                                                                                                                                                                                                                                             |                       | (06)        |
| <b>References:</b>                                                                                                                                             |                                                                                                                                                                                                                                                                          |                       |             |
| 1. Paul R. Krugman and Maurice Obstfeld: International Economics (including appendix), Pearson Education, 6 <sup>th</sup> Edition Chapters 2-5.                |                                                                                                                                                                                                                                                                          |                       |             |
| 2. Caves, Frankel and Jones: World Trade and Payments: An Introduction (including appendix), Pearson Education, 9 <sup>th</sup> Edition Chapters 2, 3, 5, 6, 7 |                                                                                                                                                                                                                                                                          |                       |             |
| 3. Peter B Kenen: The International Economy, Prentice Hall, Chapters 2, 3, 4 ,6                                                                                |                                                                                                                                                                                                                                                                          |                       |             |
| 4. Giancarlo Gandolfo: International Trade Theory and Policy (Springer), Chapters 2, 3, 4, 5 and 6: sections: 6.1, 6.2.                                        |                                                                                                                                                                                                                                                                          |                       |             |
|                                                                                                                                                                |                                                                                                                                                                                                                                                                          | <b>TOTAL PERIODS</b>  | <b>(36)</b> |

| <b>Module – 1 <u>Simple Linear Regression and Problems in OLS Methods</u></b>           |                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Unit – 1</b>                                                                         | <u>Simple Linear Regression</u> : Specifications of the Model – Assumptions – Ordinary Least Squares (OLS) Estimation – Gauss Markov Theorem – Estimation of the Error Variance – Statistical Inference in the Linear Regression Model – Confidence Intervals for the Estimated Parameters and the Testing of Hypotheses – Coefficient of Determination – Prediction with the Simple Regression model. (30) |
| <b>References:</b>                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1. <b>Goon, Gupta and Dasgupta: Volume-I, Chapters 10 and 12.</b>                       |                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2. <b>Maddala: Introduction to Econometrics (3<sup>rd</sup> Ed.), Chapter 3.</b>        |                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Unit – 2</b>                                                                         | <u>Problems in OLS Methods</u> : Analysis of Residuals – Heteroschedasticity and Autocorrelation Problems – First Order Autoregressive Process – Consequences of applying OLS under Heteroschedasticity and Autocorrelation – Durbin-Watson Test, Glesjer Test, Goldfeld-Quandt Test, (15)                                                                                                                  |
| <b>TOTAL LECTURES (45)</b>                                                              |                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>References:</b>                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                             |
| 1. <b>Maddala: Introduction to Econometrics (3<sup>rd</sup> Ed.), Chapters 5 and 6.</b> |                                                                                                                                                                                                                                                                                                                                                                                                             |
| 2. <b>R. Ramanathan: Applied Econometrics</b>                                           |                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                         | PROJECT WORK : Use of 'Micro fit' Software (10)                                                                                                                                                                                                                                                                                                                                                             |
| <b>TOTAL PERIODS (55)</b>                                                               |                                                                                                                                                                                                                                                                                                                                                                                                             |

| <b>Module – 2 <u>Applied Econometrics</u></b>                                       |                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                     | Applied Econometrics I: Basic Regression Analysis and its variants. (18)                                                                                                                         |
| <b>Unit – 2</b>                                                                     | Applied Econometrics I: Trend – Methods of Trend Determination – Polynomial and Logistic Trends – Seasonal Variables and De-seasonalization – Forecasts and their statistical significance. (05) |
| <b>TOTAL LECTURES (23)</b>                                                          |                                                                                                                                                                                                  |
| <b>References:</b>                                                                  |                                                                                                                                                                                                  |
| 1. <b>Goon, Gupta and Dasgupta: Volume-II,</b>                                      |                                                                                                                                                                                                  |
| 2. <b>Bowen and Starr: Basic Statistics for Business and Economics: Chapter 18.</b> |                                                                                                                                                                                                  |
| 3. <b>R. Ramanathan: Applied Econometrics</b>                                       |                                                                                                                                                                                                  |
|                                                                                     | PROJECT WORK : Micro fit (Regression and Time Series) REVIEWS (14)                                                                                                                               |
| <b>TOTAL PERIODS (37)</b>                                                           |                                                                                                                                                                                                  |
| <b><u>Additional References:</u></b>                                                |                                                                                                                                                                                                  |
| 1. <b>Murray Spiegel: Statistics, Schaum Series, 2<sup>nd</sup> Ed.</b>             |                                                                                                                                                                                                  |
| 2. <b>Damodar Gujarati: Basic Econometrics (for problems).</b>                      |                                                                                                                                                                                                  |

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| <b>Module – 1 <u>Environmental Economics</u></b>                                                         |                                                                                                     |
| <b>Unit – 1</b>                                                                                          | Environmental accounting.                                                                           |
| <b>Unit – 2</b>                                                                                          | Tragedy of commons and market interventions, Sustainable development, Environmental Kuznet’s curve. |
|                                                                                                          | <b>TOTAL LECTURES (20)</b>                                                                          |
|                                                                                                          | INTRODUCTION TO PROJECT WORK (06)                                                                   |
| <b>References:</b>                                                                                       |                                                                                                     |
| 1. <b>Todaro and Smith: Economic Development (Pearson Education), 8<sup>th</sup> Edition, Chapter 11</b> |                                                                                                     |
| 2. <b>Stiglitz and Walsh: Principles, W.W. Norton and Company, 4<sup>th</sup> Edition, Chapter 21</b>    |                                                                                                     |
|                                                                                                          | <b>TOTAL PERIODS (26)</b>                                                                           |

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| <b>Module – 2 <u>Gender and Development</u></b>                                                                 |                                                                                                |
| <b>Unit – 1</b>                                                                                                 | Aspects of gender inequality, concept of missing women and poverty of female-headed household. |
| <b>Unit – 2</b>                                                                                                 | Gender related development indices.                                                            |
|                                                                                                                 | <b>TOTAL LECTURES (20)</b>                                                                     |
|                                                                                                                 | INTRODUCTION TO PROJECT WORK (08)                                                              |
| <b>References</b>                                                                                               |                                                                                                |
| 1. <b>Fukuda-Parr and Shiva Kumar: Readings in Human development (Oxford University Press)</b>                  |                                                                                                |
| 2. <b>Human Development Reports, 1995,1999, technical note</b>                                                  |                                                                                                |
| <b>Additional reading: Amartya Sen: Many Faces of Gender Inequality, in Frontline Volume 18, issue 22, 2001</b> |                                                                                                |
|                                                                                                                 | <b>TOTAL PERIODS (28)</b>                                                                      |

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| <b>Module – 3 <u>Development and Institutions</u></b>                                                                                       |                                                                                                                                                                |
| <b>Unit – 1</b>                                                                                                                             | Justification for government policy: Externality, monopoly, and intertemporal resource allocation.                                                             |
| <b>Unit – 2</b>                                                                                                                             | Government failures, rent seeking activity, issue of corruption: incentives and policies; informal activity as rent evading behaviour and cost of informality. |
| <b>Unit – 3</b>                                                                                                                             | Decentralization, Participatory Development and role of NGOs, Self Help groups, women agencies and institutions of micro credit.                               |
|                                                                                                                                             | <b>TOTAL LECTURES (25)</b>                                                                                                                                     |
|                                                                                                                                             | INTRODUCTION TO PROJECT WORK (04)                                                                                                                              |
| <b>References</b>                                                                                                                           |                                                                                                                                                                |
| 1. <b>Hendrik Van Den Berg: Economic Growth and Development (McGraw Hill International Edition), Chapter 12</b>                             |                                                                                                                                                                |
| 2. <b>Vandanna Desai and Robert Potter: The Companion to Development Studies, Arnold Publication Chapter 10, sections 10.6, 10.8, 10.11</b> |                                                                                                                                                                |
| 3. <b>Amartya Sen: Development as Freedom, OUP, Chapter 8</b>                                                                               |                                                                                                                                                                |
| 4. <b>A V Banerjee et al (ed): Understanding Poverty (OUP), Chapter 26</b>                                                                  |                                                                                                                                                                |
|                                                                                                                                             | <b>TOTAL PERIODS (29)</b>                                                                                                                                      |



**SYLLABUS**  
**BSc Economics Honours**  
**THIRD YEAR, FIFTH SEMESTER**

*[NOTE: Figures in brackets indicate the no. of lectures]*

**Paper-9 - Group A    MATHEMATICAL ECONOMICS - II    (Full marks 50)**

|                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| <b>Module – 1    <u>Economic Dynamics</u></b>                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Unit – 1</b>                                                                                                                                           | <b>Techniques of integration:</b> Definite and indefinite integral.<br>Applications: Consumer surplus, Producer surplus, presents value, investment and capital stock, marginal cost and total cost. .                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Unit – 2</b>                                                                                                                                           | <b>Difference equations and its applications</b><br>A. First order non-homogenous linear difference equation: Cobweb Model, market model with inventory, stability in S.K.M and ISLM, partial adjustment model of energy demand.<br>B. Second Order non-homogenous linear difference Equation: Samuelson's model of Multiplier-Accelerator interaction, A Cournot model of duopoly.                                                                                                                                                                                                                                            |
| <b>Unit – 3</b>                                                                                                                                           | <b>Differential Equations and its applications</b><br>A. First order non-homogenous linear differential equation: Excess demand functions and price adjustment, output adjustment and stability in S.K.M, Solow growth model, Dynamics of national debt, Dynamics of the IS-LM model (Taylor's series approximation to be used to derive time path of relevant endogenous variable, wherever required).<br>B. Second order non-homogenous linear differential equation: Price adjustment and time path of price (basic demand-supply framework with (a) inventories and (b) entry and exit); Inflation unemployment trade off. |
| <b>TOTAL LECTURES    (40)</b>                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>References:</b>                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1. Alpha C. Chiang & Kevin Wainwright: <b>Fundamental Methods of Mathematical Economics</b> (McGraw Hill International Edition)                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 2. Hoy, Livernois, McKenna, Rees and Stengos: <b>Mathematics for Economics, 2<sup>nd</sup> Edition</b> Prentice Hall of India, Chapters 18, 20, 21 and 22 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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| <b>Module – 2    <u>Behaviour under Uncertainty</u></b>                                                             |                                                                                                                                                                                                                                                                                              |
| <b>Unit – 1</b>                                                                                                     | Specification of preferences, expected utility hypothesis, state preference approach, risk aversion and risk preference, measurement of risk aversion.                                                                                                                                       |
| <b>Unit – 2</b>                                                                                                     | Applications: 1) Demand for insurance: Fair insurance and insurance under asymmetric information;<br>2) Allocation of wealth to risky asset: portfolio choice and mean variance analysis, taxation of risky income;<br>3) Managerial incentives, 4) Output decision under price uncertainty. |
| <b>TOTAL LECTURES    (25)</b>                                                                                       |                                                                                                                                                                                                                                                                                              |
| <b>References:</b>                                                                                                  |                                                                                                                                                                                                                                                                                              |
| 1. A. K. Dixit: <b>Optimization in Economic Theory 2<sup>nd</sup> Edition</b> , (Oxford University Press) Chapter 9 |                                                                                                                                                                                                                                                                                              |
| 2. Silberberg: <b>The Structure of Economics, 2nd Edition</b> McGraw Hill International Edition, Chapter 13         |                                                                                                                                                                                                                                                                                              |

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| <b>Module –3    <u>Linear Programming</u></b>                                                               |                                                                                                                                                                                                    |
| <b>Unit – 1</b>                                                                                             | Linear Programming problem-Formulation and Simplex Method of solution, Duality, Complementary slackness theorem.                                                                                   |
| <b>Unit – 2</b>                                                                                             | Applications: Diet problem, Two person zero sum game as linear programming problem and solution procedure using graphical method and simplex method, Duality interpretation of input-output model. |
| <b>TOTAL LECTURES    (15)</b>                                                                               |                                                                                                                                                                                                    |
| <b>References:</b>                                                                                          |                                                                                                                                                                                                    |
| 1. H A Taha: <b>Operations Research, 8<sup>th</sup> Edition</b> , Pearson Education, Chapters 2, 3, 4, 13.4 |                                                                                                                                                                                                    |
| 2. Silberberg: <b>The Structure of Economics, 2nd Edition</b> McGraw Hill International Edition, Chapter 15 |                                                                                                                                                                                                    |
| 3. Dorfman, Samuelson and Solow: <b>Linear Programming and Economic Analysis</b> , Chapter 9                |                                                                                                                                                                                                    |

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| <b>Module – 4    <u>Static Equilibrium Analysis and Comparative Statics</u></b>                                                          |                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Unit – 1</b>                                                                                                                          | Simultaneous equation system and solution procedure using Cramer's Rule.                                                                                                                                                                                                                                                                                               |
| <b>Unit – 2</b>                                                                                                                          | Applications: 1) Comparative statics in ISLM model (fiscal policy and monetary policy); 2) Comparative statics in AD-AS model under rigid wage (fiscal policy, monetary policy and wage cut) and comparison between IS-LM model and AD-AS model; 3) Rybczynski Theorem and Stolper- Samuelson Theorem, 4) Equilibrium in two markets and price-quantity determination. |
| <b>TOTAL LECTURES    (20)</b>                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                        |
| <b>References:</b>                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                        |
| 1. Hoy, Livernois, McKenna, Rees and Stengos: <b>Mathematics for Economics, 2<sup>nd</sup> Edition</b> Prentice Hall of India, Chapter 7 |                                                                                                                                                                                                                                                                                                                                                                        |
| 2. Silberberg: <b>The Structure of Economics, 2nd Edition</b> McGraw Hill International Edition, Chapter 15                              |                                                                                                                                                                                                                                                                                                                                                                        |

| <b>Module – 1 <u>Accounting Structure, Income Determination and Trade Balance</u></b>                  |                                                                                                                                                                                                                                     |
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| <b>Unit – 1</b>                                                                                        | Balance of payment accounts; national income accounting in an open economy; monetary account; Determination of national income, multiplier analysis, the transfer problem, introduction of foreign country and repercussion effect. |
| <b>Unit – 2</b>                                                                                        | Effect of devaluation (with J curve effect), tariff and export subsidy on output and trade balance; Intermediate goods and non-traded goods.                                                                                        |
| <b>Unit - 3</b>                                                                                        | Internal and external balance and assignment problem with fiscal policy and exchange rate.                                                                                                                                          |
|                                                                                                        | <b>TOTAL LECTURES (25)</b>                                                                                                                                                                                                          |
|                                                                                                        | PROJECT WORK (03)                                                                                                                                                                                                                   |
| <b>References:</b>                                                                                     |                                                                                                                                                                                                                                     |
| 1. Paul R. Krugman & Maurice Obstfeld: International Economics (Pearson Education): Chapter 12         |                                                                                                                                                                                                                                     |
| 2. Dornbusch: Open Economy Macro Economy (Basic Books, New York): Chapters 2-5                         |                                                                                                                                                                                                                                     |
| 3. Caves Frankel & Jones: World Trade & Payments: An Introduction (Pearson Education): Chapters 15-17. |                                                                                                                                                                                                                                     |
|                                                                                                        | <b>TOTAL PERIODS (28)</b>                                                                                                                                                                                                           |

| <b>Module – 2 <u>Foreign Exchange Market and Asset Approach</u></b>                                                       |                                                                                                              |
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| <b>Unit – 1</b>                                                                                                           | Working of foreign exchange market, forward rate and spot rate, interest rate parity and risk premium.       |
| <b>Unit – 2</b>                                                                                                           | Mundell- Fleming model under fixed and flexible exchange rate (with perfect and imperfect capital mobility). |
| <b>Unit – 3</b>                                                                                                           | Assignment problem with fiscal and monetary policy.                                                          |
|                                                                                                                           | <b>TOTAL LECTURES (20)</b>                                                                                   |
|                                                                                                                           | PROJECT WORK (06)                                                                                            |
| <b>References:</b>                                                                                                        |                                                                                                              |
| 1. Caves, Frankel and Jones: World Trade & Payments: An Introduction (Pearson Education): Chapter 18 and 22.              |                                                                                                              |
| 2. Paul R. Krugman and Maurice Obstfeld: International Economics (Pearson Education), Chapters 12, 16 and 17. Appendix 1. |                                                                                                              |
| 3. Laurence Copeland: Exchange Rates and International Finance (Pearson Education): Chapter 6.                            |                                                                                                              |
|                                                                                                                           | <b>TOTAL PERIODS (26)</b>                                                                                    |

| <b>Module – 3 <u>Monetary Approach and Balance of Payments Crisis</u></b>                                           |                                                                                   |
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| <b>Unit – 1</b>                                                                                                     | Concept of purchasing power parity, effect of monetary expansion and devaluation. |
| <b>Unit – 2</b>                                                                                                     | Speculative attack, currency crisis and credibility: alternative approaches.      |
|                                                                                                                     | <b>TOTAL LECTURES (20)</b>                                                        |
|                                                                                                                     | PROJECT WORK (03)                                                                 |
| <b>References:</b>                                                                                                  |                                                                                   |
| 1. Paul R. Krugman and Maurice Obstfeld: International Economics (Pearson Education): Chapter 17, Appendix 2 and 3. |                                                                                   |
| 2. Caves Frankel & Jones: World Trade & Payments: An Introduction (Pearson Education): Chapters 19 and 24.          |                                                                                   |
| 3. Laurence Copeland: Exchange Rates and International Finance (Pearson Education): Chapter 17.                     |                                                                                   |
|                                                                                                                     | <b>TOTAL PERIODS (23)</b>                                                         |

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| <b>Module – 1</b> <u>Development Planning: Major Milestones.</u> |                                                                                                                                                                                                                                                                     |
| <b>Unit – 1</b>                                                  | <b>Industrialization:</b> 2 <sup>nd</sup> five-year plan and industrialization: Nehru-Mahalanobis strategy of planned economic development and regulatory framework of a mixed economy.                                                                             |
| <b>Unit – 2</b>                                                  | <b>Food Crisis:</b> Food crisis during sixties, green revolution and government intervention in food grain market with special reference to agricultural price, PDS and priority sector lending.                                                                    |
| <b>Unit – 3</b>                                                  | <b>Poverty alleviation:</b> Public intervention for poverty alleviation: an overall assessment with emphasis on poverty eradication and employment generation during 5 <sup>th</sup> five year plan and introduction of IRDP during 6 <sup>th</sup> five year plan. |
| <b>Unit – 4</b>                                                  | <b>Economic crisis:</b> Industrialization strategy and selective import liberalization under 7 <sup>th</sup> five year plan: external debt crisis, fiscal imbalance, balances of payment problems and inflation.                                                    |
|                                                                  | <b>TOTAL LECTURES</b> (25)                                                                                                                                                                                                                                          |
| PROJECT WORK                                                     | (03)                                                                                                                                                                                                                                                                |
|                                                                  | <b>TOTAL PERIODS</b> (28)                                                                                                                                                                                                                                           |

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|-----------------------------------------------------|------------------------------------------------------------------------------------|
| <b>Module – 2</b> <u>New Economic Policy , 1991</u> |                                                                                    |
| <b>Unit – 1</b>                                     | Stabilization and structural adjustment programme—rationale and different aspects. |
|                                                     | <b>TOTAL LECTURES</b> (15)                                                         |
| PROJECT WORK                                        | (06)                                                                               |
|                                                     | <b>TOTAL PERIODS</b> (21)                                                          |

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|-------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module – 3</b> <u>Development Experience under Reforms</u>                                                                       |                                                                                                                                                                                                                                                                                                                                       |
| <b>Unit – 1</b>                                                                                                                     | <b>External sector:</b> Balance of payments—trend and composition; currency convertibility and exchange rate movements; exim policy and WTO related issues; portfolio investment and foreign direct investment.                                                                                                                       |
| <b>Unit – 2</b>                                                                                                                     | <b>Financial sector:</b> Monetary trends and developments; Non-performing assets and banking sector reforms with special reference to prudential supervision; non-bank financial intermediaries and developments in security markets.                                                                                                 |
| <b>Unit – 3</b>                                                                                                                     | <b>Fiscal reforms:</b> Budgetary developments; tax reforms and measures; pension reforms.                                                                                                                                                                                                                                             |
| <b>Unit – 4</b>                                                                                                                     | <b>Agriculture and Industry: (A)</b> Agricultural growth; agricultural credit, insurance and marketing; capital formation; agricultural trade liberalization.<br><b>(B)</b> Industrial growth and fluctuation; public sector enterprises with special emphasis on disinvestments; 11 th five year plan, SEZ and environmental issues. |
| <b>Unit 5</b>                                                                                                                       | <b>Social sectors and infrastructure: (A)</b> Poverty alleviation and employment generation programmes; women and child development; health and education; labour laws and labour markets.<br><b>(B)</b> Power; telecommunication; transport.                                                                                         |
|                                                                                                                                     | <b>TOTAL LECTURES</b> (50)                                                                                                                                                                                                                                                                                                            |
| PROJECT WORK                                                                                                                        | (03)                                                                                                                                                                                                                                                                                                                                  |
| <b>References:</b>                                                                                                                  |                                                                                                                                                                                                                                                                                                                                       |
| 1. Pramit Chaudhuri: <b>The Indian Economy, Poverty and Development</b> , Vikas Publishing House.                                   |                                                                                                                                                                                                                                                                                                                                       |
| 2. Pramit Chaudhuri: <b>Readings in Indian Agricultural Development</b> , George Allen and Unwin Ltd.                               |                                                                                                                                                                                                                                                                                                                                       |
| 3. Bhagwati and Desai: <b>India Planning for Industrialization</b> , OUP.                                                           |                                                                                                                                                                                                                                                                                                                                       |
| 4. Bhagwati and Chakraborty: <b>Contribution to India Economic Analysis</b> .                                                       |                                                                                                                                                                                                                                                                                                                                       |
| 5. Bimal Jalan (Ed): <b>The Indian Economy</b> , OUP                                                                                |                                                                                                                                                                                                                                                                                                                                       |
| 6. Bimal Jalan: <b>India's Economic Crisis – The Way Ahead</b> , OUP                                                                |                                                                                                                                                                                                                                                                                                                                       |
| 7. Robert E.B. Lucas and Gustav F. Papanek: <b>The Indian Economy: Recent Development and Future Prospects</b> , OUP.               |                                                                                                                                                                                                                                                                                                                                       |
| 8. Sukhomoy Chakraborty: <b>Development Planning – The Indian Experience</b> , OUP                                                  |                                                                                                                                                                                                                                                                                                                                       |
| 9. M.S.Ahluwalia and I.M.D Little (Ed): <b>India's Economic Reforms and Development - Essays in Honour of Man Mohan Singh</b> , OUP |                                                                                                                                                                                                                                                                                                                                       |
| 10. Jagdish Bhagwati: <b>India in Transition – Freeing the Economy</b> , OUP                                                        |                                                                                                                                                                                                                                                                                                                                       |
| 11. V.Joshi and I.M.D Little: <b>India Macroeconomics and Political Economy, 1964-1991</b> , OUP.                                   |                                                                                                                                                                                                                                                                                                                                       |
| 12. V.Joshi and I.M.D Little: <b>India's Economic Reforms 1991-2001</b> , OUP                                                       |                                                                                                                                                                                                                                                                                                                                       |
| 13. L.J.Ahluwalia: <b>Industrial Growth In India – Stagnation since the Mid-Sixties</b> , OUP                                       |                                                                                                                                                                                                                                                                                                                                       |
| 14. Raja J. Chelliah: <b>Towards Sustainable Development – Essays in Fiscal and Financial Sector Reforms in India</b> , OUP         |                                                                                                                                                                                                                                                                                                                                       |
| 15. C. Rangarajan: <b>Indian economy – Essays on Money and Finance</b> , UBS Publishers' Distributors Ltd                           |                                                                                                                                                                                                                                                                                                                                       |
| 16. T.N. Srinivasan: <b>Eight Lectures on India's Economic Reforms</b> , OUP                                                        |                                                                                                                                                                                                                                                                                                                                       |
| 17. Uma Kapila Ed: <b>Indian Economy since Independence, different volumes</b> , Academic Foundation.                               |                                                                                                                                                                                                                                                                                                                                       |
| 18. <b>Economic Survey</b> , different volumes.                                                                                     |                                                                                                                                                                                                                                                                                                                                       |
| 19. <b>Economic and Political Weekly</b> , relevant articles.                                                                       |                                                                                                                                                                                                                                                                                                                                       |
| 20. <b>India Infrastructure Report</b> , Different Volumes                                                                          |                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                     | <b>TOTAL PERIODS</b> (53)                                                                                                                                                                                                                                                                                                             |

| <b>Module – 1 <u>Trade Aid and Growth</u></b>                                                                                                                                         |                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                                                                                       | Gains from trade in Solow model, East Asian growth miracle; Learning by trading and endogenous growth; trade and technological progress. |
| <b>Unit – 2</b>                                                                                                                                                                       | Saving constraint, foreign exchange constraint and aid: Dual gap model of aid.                                                           |
|                                                                                                                                                                                       | <b>TOTAL LECTURES (25)</b>                                                                                                               |
|                                                                                                                                                                                       | INTRODUCTION TO PROJECT WORK (03)                                                                                                        |
| <b>References:</b>                                                                                                                                                                    |                                                                                                                                          |
| 1. Hendrik Van Den Berg and Joshua J Lewer: <i>International Trade and Economic Growth</i> (Prentice Hall of India), Chapter 3: Sections 3.5, 3.6; Chapter 4, Section 4.5; Chapter 6. |                                                                                                                                          |
| 2. Kaushik Basu: <i>Analytical Development Economics</i> (Oxford University Press), Chapter 5: Section 5.2                                                                            |                                                                                                                                          |
|                                                                                                                                                                                       | <b>TOTAL PERIODS (28)</b>                                                                                                                |

| <b>Module – 2 <u>Trade Policy Debate and Economic Integration</u></b>                      |                                                                                                                                                                                                             |
|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                            | Import substitution: Infant industry argument and Prebisch- Singer hypothesis as justification; methods of import substitution and critical appraisal with special reference to rent seeking; case studies. |
| <b>Unit – 2</b>                                                                            | Export oriented industrialization: Basic logic, methods of export promotion, case studies.                                                                                                                  |
| <b>Unit – 3</b>                                                                            | Multinationals in developing countries, technology transfer and government policies                                                                                                                         |
|                                                                                            | <b>TOTAL LECTURES (20)</b>                                                                                                                                                                                  |
|                                                                                            | INTRODUCTION TO PROJECT WORK (03)                                                                                                                                                                           |
| <b>References</b>                                                                          |                                                                                                                                                                                                             |
| 1. Todaro and Smith: <i>Economic Development</i> (Pearson Education), Chapter 13.          |                                                                                                                                                                                                             |
| 2. Ray Debraj: <i>Development Economics</i> (Oxford University Press), Chapters 17 and 18. |                                                                                                                                                                                                             |
| 3. Thirwall A.P: <i>Growth and Development</i> (Palgrave MacMillan), Chapter 16.           |                                                                                                                                                                                                             |
| 4. Soumyen Sikdar: <i>Contemporary Issues in Globalization</i> , OUP, Chapter 4.           |                                                                                                                                                                                                             |
|                                                                                            | <b>TOTAL PERIODS (23)</b>                                                                                                                                                                                   |

| <b>Module – 3 <u>Employment, Wage Inequality and Globalization</u></b>                                                                             |                                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                                                    | Basic facts; inflow of foreign capital and immiserization, distinction between skilled and unskilled labour and wage inequality. |
| <b>Unit – 2</b>                                                                                                                                    | General equilibrium structure as an explanatory framework.                                                                       |
|                                                                                                                                                    | <b>TOTAL LECTURES (25)</b>                                                                                                       |
|                                                                                                                                                    | INTRODUCTION TO PROJECT WORK (03)                                                                                                |
| <b>References</b>                                                                                                                                  |                                                                                                                                  |
| 1. Sugata Marjit and Rajat Acharyya: <i>International Trade, Wage Inequality and the Developing Economy</i> , Physica-Verlag, Chapters 2, 4 and 6. |                                                                                                                                  |
| 2. Soumyen Sikdar: <i>Contemporary Issues in Globalization</i> , OUP, Chapter 4.                                                                   |                                                                                                                                  |
|                                                                                                                                                    | <b>TOTAL PERIODS (28)</b>                                                                                                        |

| <b>Module – 4 <u>International Institutions</u></b>                                                                                     |                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                                         | IMF and World Bank: structural adjustment and stabilization programme: rationale, country experience with special reference to debt crisis and debt management. |
| <b>Unit – 2</b>                                                                                                                         | WTO and developing countries in the new global economic order.                                                                                                  |
|                                                                                                                                         | <b>TOTAL LECTURES (25)</b>                                                                                                                                      |
|                                                                                                                                         | INTRODUCTION TO PROJECT WORK (03)                                                                                                                               |
| <b>References</b>                                                                                                                       |                                                                                                                                                                 |
| 1. Ray Debraj: <i>Development Economics</i> (Oxford University Press), Appendix of Chapter 17.                                          |                                                                                                                                                                 |
| 2. Soumyen Sikdar: <i>Contemporary Issues in Globalization</i> , OUP, Chapter 7                                                         |                                                                                                                                                                 |
| 3. Todaro and Smith: <i>Economic Development</i> (Pearson Education), Chapter 14                                                        |                                                                                                                                                                 |
| Internet sources: <a href="http://www.imf.org">http://www.imf.org</a> , <a href="http://www.worldbank.org">http://www.worldbank.org</a> |                                                                                                                                                                 |
|                                                                                                                                         | <b>TOTAL PERIODS (28)</b>                                                                                                                                       |

## THIRD YEAR, SIXTH SEMESTER

### Paper-11 - Group A INTERNATIONAL ECONOMICS - II

(Full marks 50)

|                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                  |
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| <b>Module – 1</b>                                                                                                                                                                                                                                                                                                                                                                           | <b><u>Trade Policy: Partial and General Equilibrium</u></b>                                                                                                                                                      |
| <b>Unit – 1</b>                                                                                                                                                                                                                                                                                                                                                                             | Partial equilibrium analysis: Tariff – cost and benefit, effective rate of protection and intermediate goods, quota, tariff – quota equivalence and non-equivalence, export subsidy, voluntary export restraint. |
| <b>Unit – 2</b>                                                                                                                                                                                                                                                                                                                                                                             | General Equilibrium Analysis: Distinction between small and large open economy, welfare effects of tariff in a small country, optimum tariff for large open economy, Metzler’s paradox.                          |
| <b>References:</b><br><b>1. Paul R. Krugman and Maurice Obstfeld: International Economics (including appendix), Pearson Education, 6<sup>th</sup> Edition Chapters 8,9 (including relevant appendix).</b><br><b>2. Caves, Frankel and Jones: World Trade and Payments: An Introduction (including appendix), Pearson Education, 9<sup>th</sup> Edition Chapters 10 (including appendix)</b> |                                                                                                                                                                                                                  |
| <b>TOTAL PERIODS (40)</b>                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                  |

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Module – 2</b>                                                                                                                                                                                                                                                                                                                                                                                       | <b><u>Imperfect Competition and International Trade.</u></b>                                                                                                                                                                                               |
| <b>Unit – 1</b>                                                                                                                                                                                                                                                                                                                                                                                         | Intra-Industry Trade: definition and measurement; explanations for intra industry trade: (a) internal economies of scale and imperfect competition: monopolistic competition; oligopoly and reciprocal dumping, (b) external economies of scale and trade. |
| <b>Unit – 2</b>                                                                                                                                                                                                                                                                                                                                                                                         | Imperfect competition and trade policy: monopoly, import competition and export opportunities, import duty and export subsidy under monopoly and international duopoly.                                                                                    |
| <b>References:</b><br><b>1. Paul R. Krugman and Maurice Obstfeld: International Economics (including appendix), Pearson Education, 6<sup>th</sup> Edition Chapters 6,11 (including relevant appendix).</b><br><b>2. Caves, Frankel and Jones: World Trade and Payments: An Introduction (including appendix), Pearson Education, 9<sup>th</sup> Edition Chapters 8,12 (including relevant appendix)</b> |                                                                                                                                                                                                                                                            |
| <b>TOTAL PERIODS (40)</b>                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                            |

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| <b>Module – 3</b>                                                                                                                                                               | <b><u>Regional Trade: Theory and Practise</u></b>                                                   |
| <b>Unit – 1</b>                                                                                                                                                                 | Basic theory of customs union, welfare effects, preferential arrangements in practice-EU and NAFTA. |
| <b>References:</b><br><b>1. Caves, Frankel and Jones: World Trade and Payments: An Introduction (including appendix), Pearson Education, 9<sup>th</sup> Edition Chapters 14</b> |                                                                                                     |
| <b>TOTAL PERIODS (15)</b>                                                                                                                                                       |                                                                                                     |

| <b>Module – 1 <u>Corporate Finance</u></b>                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                                                             | Structure of corporate governance, financial instruments and financial structure; Financial statement and ratio analysis; time value of money; investment decisions and net present value; capital budgeting-weighted average cost of capital and different methods; corporate restructuring: mergers, acquisitions, amalgamations, divestments-meaning, motives and strategies. |
| <b>Unit – 2</b>                                                                                                                                             | Concept of risk and return; portfolio theory, capital asset pricing model, arbitrage pricing theory; efficient market hypothesis-basic concept.                                                                                                                                                                                                                                  |
| <b>Unit - 3</b>                                                                                                                                             | Capital market in India: brief history, major reforms in primary and secondary capital market.                                                                                                                                                                                                                                                                                   |
| <b>References:</b>                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                  |
| 1. Brealey, Myers, Allen and Mohanty, <b>Principles of Corporate Finance, 8<sup>th</sup> Edition, Tata Mcgraw-Hill Company Limited, Chapters 2-9, 13,32</b> |                                                                                                                                                                                                                                                                                                                                                                                  |
| 2. Arnold and Kumar: <b>Corporate Financial Management, 3<sup>rd</sup> Edition, (Pearson Education), Chapters 2,6-8,14,20</b>                               |                                                                                                                                                                                                                                                                                                                                                                                  |
| 3. Eiteman, Stonehill, Moffett and Pandey: <b>Multinational Business Finance, 10th Edition (Pearson Education), chapters 18,19.</b>                         |                                                                                                                                                                                                                                                                                                                                                                                  |
| 4. Tirole, <b>Theory of Corporate Finance, MIT Press, Chapters 1,2, 3.1, 3.2</b>                                                                            |                                                                                                                                                                                                                                                                                                                                                                                  |
| 5. Pathak: <b>Indian Financial System, (Pearson Education), relevant chapters</b>                                                                           |                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>TOTAL PERIODS (50)</b>                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                  |

| <b>Module – 2 <u>Derivatives and Markets</u></b>                                                                                                        |                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <b>Unit – 1</b>                                                                                                                                         | Markets: Forward, future, options: types of option-put option and call option and valuation |
| <b>Unit – 2</b>                                                                                                                                         | Derivative markets in India: derivative trading and regulatory framework.                   |
| <b>References:</b>                                                                                                                                      |                                                                                             |
| 1. Eiteman, Stonehill, Moffett and Pandey: <b>Multinational Business Finance, 10th Edition (Pearson Education), Chapter 5.</b>                          |                                                                                             |
| 2. Brealey, Myers, Allen and Mohanty, <b>Principles of Corporate Finance, 8<sup>th</sup> edition, Tata Mcgraw-Hill Company Limited, Chapters 20, 21</b> |                                                                                             |
| 3. Arnold and Kumar: <b>Corporate Financial Management, 3<sup>rd</sup> edition, (Pearson Education), chapters 21</b>                                    |                                                                                             |
| 4. Pathak: <b>Indian Financial System, (Pearson Education), relevant chapters.</b>                                                                      |                                                                                             |
| <b>TOTAL PERIODS (50)</b>                                                                                                                               |                                                                                             |

**Module – 1 Health Economics: Concepts and Measures**

**Unit – 1** Concept of Health- Public Health and Medical Care- Preventive and Externalities- Curative Health- Health as a Commodity.

**Unit – 2** Measures of Health- Anthropometric Measures and Body-Mass-Index (BMI) - epidemiologic transition theory and Global Burden of Disease (GBD)-different mortality rates (IMR, CMR, MMR etc) - Quality Adjusted Life Years (QALY) and Disability Adjusted Life Years (DALY).

**References:**

1. Palgrave Dictionary of Economics, Macmillan: Health Economics & Medical Care; Public Health
2. World Development Report (1993): Investing in Health, Chapter 1.
3. Meier & Rauch (7th edition): Leading Issues in Economic Development, Chapter V, Sections V.C.1, V.C.2
4. Murray (1996): Epidemiologic and Morbidity Transition in India in Dasgupta, Chen & Krishnan(ed) Health, Poverty and Development in India, OUP.
5. Partha Dasgupta (1995): An Inquiry into Well-Being and Destitution, Chapter 4, Sections 4.3, 4.4, and 4.5.
6. William Jack (1999): Principles of Health Economics for Developing Countries, WBI Development Studies, Chapters 2, 3.

**TOTAL PERIODS (25)**

**Module – 2 Health and Medical Care: An Economic Perspective**

**Unit – 1** Demand for medical care- elasticities – empirical estimation – case studies.

**Unit – 2** Medical Care and Production Costs.

**Unit – 3** Cost- Benefit vis-à-vis Cost Effectiveness Analysis.

**Unit – 4** Financing Medical Care- third party payment- the role of government- scope of medical insurance.

**References:**

1. Neun & Santerre (4th edition): Health Economics, Chapters 2, 3, 4, 5, 6, 7

**TOTAL PERIODS (30)**

**Module – 3 Medical Care in India****References:**

1. Ajay Mahal: The Distribution of Public Health Subsidies in India in Yazbeck & Peters(ed) Health Policy Research in South Asia, World Bank(2003)
2. Ramesh Bhatt (1993): The Private Health Care Sector in India in Berman & Kahn(ed) Paying for India's Health Care, Sage Publications.
3. Rama V. Baru: Private Health Care in India- Social Characteristics and Trends, Sage Publications (selected chapters)
4. Health Insurance in India: Current Scenario- Annex 2 in Social Health Insurance: Regional Overview in South-East Asia.
5. Selected Case studies from relevant websites.

**TOTAL PERIODS (45)**

Computer Laboratory classes and Tutorials : 100