

SYLLABUS
B.Sc. Economics Minor
First Semester
Paper1: Microeconomics

Full Marks: 80

Module - 1 Theory of Demand and Supply

Unit -1 Scarcity and Choice: Choice by Command and choice by market, role of prices in a market economy.

Unit- 2 Elementary concepts of demand, supply and price determination, stability of equilibrium (Walrasian approach), elasticities of demand and supply.

Module - 2 Theory of Consumer Behaviour

Unit -1 Concept of Utility - total and marginal utility - law of diminishing marginal utility - law of demand - relation between law of demand and law of diminishing marginal utility

Unit- 2 Concept of ordinal utility - definition and characteristics of Indifference Curves, - budget line - consumer's equilibrium, price, substitution and income effects - income consumption, price consumption and Engel curves

Module - 3 Theory of Production and Cost

Unit -1 Production function - Law of variable proportions - AP, MP and TP curves -Properties of isoquants - returns to scale (basic concept only).

Unit-2 Cost of production - implicit (opportunity) and explicit costs - long run cost minimization, Short Run Cost : fixed and variable costs - short-run cost curves - long- run average cost curve - Relation between Short Run and Long Run Cost

Module - 4 Theories of Market

Unit-1 Market of perfect competition - AR, MR and TR for a competitive firm - concept of profit maximization - short-run equilibrium of the competitive firm - short-run supply curves of the firm and the industry - long-run equilibrium of the competitive firm.

Unit-2 Theories of imperfect competition: Monopoly - AR, MR and TR in monopoly - price and output determination under monopoly - multi-plant monopoly - concept of price- discrimination and 3rd Degree Price discrimination (diagram only). General concepts of other market structures.

Module - 5 Theory of Distribution

Unit - 1 Marginal productivity theory of distribution - factor price determination - distinction between money and real wages - collective bargaining and equilibrium under monopsony; alternative theories of profit.

Unit-2 Rent - Ricardian theory - modern theory - quasi-rent; interest - money and real interests - loanable fund and liquidity preference theories of interest.

References:

- 1. Lipsey and Chrystal: Principles of Economics (Oxford University Press)**
- 2. Mankiw N.G: Principles of Economics (Thomson South-Western)**
- 3. Pindyck, Rubinfeld and Mehta: Microeconomics (Pearson Education Asia)**

SYLLABUS
B.Sc. Economics Minor
Second Semester
Paper2: Macroeconomics

Full Marks: 80

Module - 1 National Income Accounting

Unit - 1 Concept of National Income -Circular flow of income, Distinction between Gross and Net National Income.

Unit - 2 Different Methods of Measuring National Income

Module - 2 Theory of Income and Employment

Unit - 1 Simple Keynesian Model - equilibrium, adjustment process and stability (with economic interpretation of the stability condition) - comparative statics - expenditure multipliers with and without government sector, paradox of thrift.

Unit - 2 IS-LM model - commodity market equilibrium and the IS curve, Money Market equilibrium and the LM curve, Macroeconomic equilibrium and the adjustment process, comparative statics - fiscal policy, monetary policy.

Unit - 3 Classical Theory of employment and output—Say's Law of Markets, neutrality of money and Classical dichotomy.

Module 3 Money and Banking

Unit - 1 Definition of Money—Functions of Money—Value of Money—Different concepts of Money (M1, M2, M3 and M4), Money Multiplier theory and determination of Money Supply, selective instruments of monetary control.

Unit - 2 Banking—asset liability accounting for central bank and commercial bank, Functions of Central Bank- Functions of Commercial Banks— Credit Creation— Credit Control Methods.

Module 4 Theory of Inflation

Unit -1 Concepts of Inflation, Deflation and Stagflation—Inflationary Gap—Distinction between Demand pull and Cost-push Inflation, Phillips curve and role of expectation. Unit-2 Effects of Inflation, Anti-inflationary policies.

References:

- 1. Lipsey and Chrystal: Principles of Economics (Oxford University Press)**
- 2. Mankiw N.G: Principles of Economics (Thomson South-Western)**
- 3. Dornbusch, Fisher and Startz: Macroeconomics (Tata McGraw-Hill)**

Syllabus
B.Sc. Economics Minor
Third Semester
Paper3: Mathematical Economics

Full Marks: 80

1. Unconstrained Optimization

Optimum values and extreme values; Relative Maximum and minimum: Derivative Tests; Applications: Profit maximization in competitive and monopoly market.
Reference: Chiang and Wainwright: Fundamental methods of mathematical economics; 4th edition, McGraw-Hill, Chapter 9, 13.5

2. Constrained Optimization

Lagrange method and its interpretation; Applications: Utility maximization subject to budget constraint - derivation of demand function, Cost minimization subject to output constraint - derivation of cost function.
Reference: Chiang and Wainwright: Fundamental methods of mathematical economics; 4th edition, McGraw-Hill, Chapter 12, 13.5

3. Dynamics

a) First order differential equation

Applications: Price adjustment; output adjustment in an effective demand model, time path and stability

b) First order difference equation.

Applications: The Cobweb model, Output adjustment in the Simple Keynesian Model

Reference: Chiang and Wainwright: Fundamental methods of mathematical economics; e 4 edition, McGraw-Hill, Chapter 15

4. Simultaneous Equation System and Applications:

IS-LM Model, Cournot model & Solving Reaction Functions

Reference: 1. Chiang and Wainwright: Fundamental methods of mathematical economics; 4th edition, McGraw-Hill,

2. Archibald, G.C, Lipsey, Richard G: An Introduction to a Mathematical Treatment of Economics, Weidenfeld and Nicolson.

5. Game theory: An introduction

a) Two Person Zero Sum Game: Pure strategy and mixed strategy

b) Extensive form game and backward induction; Strategic form game: Principle of dominance and Nash Equilibrium

Reference: 1. Prajit K Dutta: Strategies and Games, The MIT Press, Chapters 2,3,4,5

2. V K Kapoor: Operations Research, Problems and Solutions, Chapter 14

Additional Reading : Schaum Series Outlines, Introduction To Mathematical Economics, 3rd Edition, Tata McGraw-Hill
