

<b>Department of Economics</b> <b>Faculty of Social Sciences, Jamia Millia Islamia, New Delhi</b>				
<b>B.A. (Multidisciplinary)</b> <b>FYUP: Four Year Undergraduate Programme (w.e.f. 2024-25)*</b>				
Paper Code	Paper Title	Credits	Internal Assessment Marks (40%)	Semester End Examination Marks (60%)
<b>Discipline Specific Core (DSC)</b>				
<b>Semester I (July-December)</b>				
24-ECO-D-106	Principles of Microeconomics	4	40	60
<b>Semester II (January- June)</b>				
24-ECO-D-156	Principles of Macroeconomics	4	40	60
<b>Semester III (July-December)</b>				
24-ECO-D-206	Indian Economy	4	40	60
<b>Semester IV (January- June)</b>				
24-ECO-D-256	Growth and Development	4	40	60
24-ECO-D-257	Money and Banking	4	40	60
<b>Semester V (July-December)</b>				
24-ECO-D-305	International Trade	4	40	60
24-ECO-D-306	Mathematics for Economics	4	40	60
<b>Semester VI (January- June)</b>				
24-ECO-D-355	Statistics for Economics	4	40	60
24-ECO-D-356	Public Economics	4	40	60
<b>Semester VII (July-December)</b>				
24-ECO-D-406	Intermediate Microeconomics	4	40	60
24-ECO-D-407	Introductory Econometrics	4	40	60
<b>Semester VIII (January- June)</b>				
24-ECO-D-458	Intermediate Macroeconomics	4	40	60
24-ECO-D-459	International Finance	4	40	60

*#Weekly Four period/hour classes for four credits.*

\*Note: The distribution of marks between Internal Assessment and Semester End Examination carries respectively 40% and 60% from the Academic Session, 2025-26; except for the Batch 2024-25 where the weightage is respectively 25% and 75%.

<b>Course: Principles of Microeconomics</b>	
<b>Type of Course:</b> Discipline Specific Core	<b>Code:</b> 24-ECO-D-106
<b>Semester:</b> I	<b>Credits:</b> 4

### **I. Introduction to the Course:**

This introductory microeconomics course is designed to offer the students with understanding fundamental principles which govern the behaviour of individual economic agents. Students will be able to understand how individuals make decision to maximise their objective subject to resource constraints. This course also offers the students the functioning of Markets. This course also sheds light on the role of price in allocation of resources.

### **II. Course Objectives:**

- To provide students with a robust foundation in the fundamental principles of supply and demand, both at the individual and firm levels.
- This course also intends to build an understanding of how changing prices affect social welfare.
- Through theoretical exploration and applications, students will gain insight into behaviour of agents in the economy, enabling them to analyse and understand economic activities.

### **III. Learning Outcome:**

- Students will acquire the necessary knowledge and skills for translating the preferences of economic agents into demand and supply curves.
- Students will also grasp the mechanism of attaining individual and market equilibriums and gain insight into the different market structures
- Skills learned during this course will equip students to effectively participate in other courses in economics.

### **IV. Course Contents:**

#### **Unit- 1: Basic Concepts in Economics**

- Nature and scope of economics, opportunity cost, scarcity, production possibility frontier; Market as a system to allocate available resources in the economy, welfare state; Microeconomics-vs-macroeconomics.
- Demand function, demand curve and demand schedule; law of demand, determinants of individual demand; market versus individual demand schedule; extension and contraction of demand, shifts in the demand curve.
- Supply function, supply schedule and supply curve, determinants of supply; market versus individual supply; extension and contraction of supply, shifts in the supply curve.
- Consumer and producer surplus, concepts of elasticity of demand; factors affecting elasticity of demand; elasticity of supply, elasticity and revenue.

#### **Unit- 2: Consumer and Producer Theory**

- **Consumer Theory:** Cardinal and ordinal measures of utility, utility function, total utility, marginal utility, law of diminishing marginal utility, water-diamond paradox,

budget constraint, consumption and income/price changes, demand for all other goods and price changes; consumer's optimum choice.

- **Producer Theory:** Production function, total, marginal, and average products; law of variable proportion, production isoquants, return to scale using isoquants, economic region of production. Cost of Production: Long run and short run costs of production, various cost concepts and shape of their curves; short run costs and output decisions; equilibrium of the firm.

### **Unit-3: Markets**

- Perfect competition: Assumptions, equilibrium of the firm and the industry in the short and the long runs, including industry's long run supply curve.
- Monopoly: Significance and features of monopoly, price and output under monopoly.

### **V. Readings:**

1. Krugman, P. R., & Wells, R. (2009). *Economics*. Macmillan.
2. Mankiw, N. G. (2018). *Principles of Microeconomics*, Eighth Edition, Cengage Learning.
3. Pindyck, R. S., & Rubinfeld, D. L. (2008). *Microeconomics*, Eighth Edition. Pearson Education.
4. Browning, E.K. and Zupan, M.A. (2015) *Microeconomic: Theory & Applications*. Wiley
5. Case, K. Ray Fair, & Sharon Oster, (2017), *Principles of Microeconomics*, Global Edition. Pearson Education
6. Lipsey, R. and Chrystal, A. (2020). *Economics*, Fourteen Edition. Oxford University Press.
7. Salvatore, D. (2006). *Schaum's Outline of of Microeconomic Theory*, McGraw-Hill, Fourth Edition.
8. Goodwin, N., Harris, J. M., Nelson, J. A., Rajkarnikar, P. J., Roach, B., & Torras, M. (2022). *Microeconomics in context*. Routledge, Fifth Edition.
9. Janssen, M., Knuuttila, T., & Morgan, M. S. (2024). Insider apology for microeconomic theorising?. *Journal of Economic Methodology*, 1-12.
10. Armstrong, W. E. (1950). A note on the theory of consumer's behaviour. *Oxford Economic Papers*, 2(1), 119-122.

<b>Course: Principles of Macroeconomics</b>	
<b>Type of Course:</b> Discipline Specific Core	<b>Code:</b> 24-ECO-D-156
<b>Semester:</b> II	<b>Credits:</b> 4

### **I. Introduction to the Course:**

This introductory course in Principles of Macroeconomics aims to provide students with a conceptual understanding of macroeconomic principles and stylized facts about the economy specially focus to India Economy. Through a blend of traditional and modern economic thinking, students will develop a foundational knowledge of macroeconomics. Additionally, the course will explore the workings of the Indian economy, offering students valuable insights into its dynamics. There are no pre-requisites for this course.

### **II. Course Objectives:**

- To acquaint the students with basic concepts of the national income and to equip them with a holistic understanding of the economic activities that are organized in the economy.
- To familiarizes students with different theories about the process of stabilization in aggregate income and employment of the economy.
- The course also provides glimpses of the impact of autonomous changes in economy's income and employment such as changes in investment spending, government expenditure and taxes.

### **III. Learning Outcome:**

- Students will be equipped to understand and use the national income data to analyse the behaviour of aggregate economy.
- Students will learn about the role of different actors, i.e., households, firms and government in the economy and mechanism of circular flow of income and spending in the economy.
- This course will equip students with an understanding of the fundamental principles and frameworks that will enable them to explain the working of aggregate economic variables, their interactions and therefore the economy.

### **IV. Course Contents:**

#### **Unit- 1: Basic Concept of National Income**

Concepts of National Income –GNP and NNP at market price and factor cost, Gross value added (GVA) at basic price, National product and Domestic product, Measurement of National Income– Product or Value-added Method, Income Method and Expenditure Method, difficulties in the measurement of National Income. Real and nominal GDP, GDP deflator. Trajectory of GDP in post-independent India.

#### **Unit- 2: Classical Theory of Output & Employment**

Brief history of major schools of economic thought; Says law of markets and Quantity theory of Money, Classical model without saving and Investment. Effects of the change in Labour

supply and in Change in labour demand, on the level of output employment, rigid money wage, monetary policy and full employment. Classical theory with saving and investment.

### **Unit- 3: Keynesian Theory of Income and Employment**

Great Depression of the 1929 and the Keynesian Revolution, Keynesian approach to the determination of price, Output and Employment –The Complete Keynesian model. Consumption function, Saving and Investment, Concept of Multiplier, Government Expenditure Multiplier, and tax multiplier, Leakages of multiplier.

#### **V. Basic Readings:**

1. Beckerman, W. (1980). *An Introduction to National Income Analysis*. Littlehampton Book Services.
2. D'Souza E. (2009). *Macroeconomics*, Pearson Education.
3. Mankiw, N. (2016). *Macroeconomics*, 9th ed. Worth Publishers.
4. S.K. Aggarwal (2002). *National Income Accounting*. Worldview Publications.
5. Shapiro, D. (2022). *Principles of Macroeconomics 3e*. OpenStax College Shapiro E. Macro Economic Analysis Second Edition.
6. Vaish, M.C. (2010). *Macroeconomic Theory*, Vikas Publishing House Pvt.Ltd.

<b>Course: Indian Economy</b>	
<b>Type of Course:</b> Discipline Specific Core	<b>Code:</b> 24-ECO-D-206
<b>Semester:</b> III	<b>Credits:</b> 4

### **I. Introduction to the Course:**

This course provides an overview of Indian Economy and introduces the working of Indian Economy under the post-independence era along with an overarching discussion of the enduring effects of the colonial regime on Indian economy. By providing comprehensive review of major debates pertaining to various sectors of the economy this course builds on existing theoretical training on economic theory of course participants while exposing students to major policy challenges that India faces.

### **II. Course Objectives:**

- Students will be exposed to the importance of the historical perspective of the Indian economy and characteristics of a developing economy.
- It will equip students with the rationale behind success and failure of various policies adopted since independence.
- Students will be exposed to interdependencies in working of the different sectors of the economy and its impact on economic growth, poverty, Inequality and employment.

### **III. Course Outcomes:**

- Students will be able to apply their analytical skills on sectoral data to develop insights on real world socio-economic problems.
- Development of critical thinking about policy choices, pre-existing arguments, relevance of evidence on Indian Economy.
- Students will be able to assess contemporary economic issues like progress of SDGs, globalization, fiscal and monetary policy, and impact of Artificial Intelligence (AI) on productivity and employment and develop skills for identifying policy relevant research questions.

### **IV. Course Contents:**

#### **Unit- 1: Indian Economy after independence: The legacies and strategies**

- Features of Indian economy at the time of independence
  - The challenge of Structural Transformation and Development Planning
  - Role of state in Indian Economy – Five-year plans
    - Approach to Rural development: Land reforms Vs Green Revolution
    - Planning for Industry: Capital Goods vs wage goods approach
  - Occupational and output structure of Indian economy
  - Criticality of informal economy
  - Poverty, disguised unemployment and economic inequality
  - Demographic transition and its regional variation in India
  - Human Development in India: Education, health and other social indicators
  - Fiscal Federal structure of Indian economy

## **Unit-2: Perspective of India's Agricultural and Industrial Economy**

Importance of Agriculture in Indian economy

- Green Revolution and its consequences: Intended and unintended
  - Trends in agriculture production and productivity after Green Revolution
  - Food Security
  - Agriculture Price Policy
  - Sources of Agricultural Finance
  - Sustainable Agricultural Growth
  - Growing Regional disparity
  - Growth interpersonal inequality
  - Net negative support to agriculture
- Industry in Indian Economy
  - Trends in India's industrial growth and productivity,
  - Small vs. large industry,
  - Public vs. private sector industries
  - Impact of licensing and import substitution policies
- Impact of
  - Delicensing
  - Disinvestment and privatisation
  - Trade Liberalisation
  - Foreign exchange rate policies
- Regional imbalances in industrial Performance

## **Unit-3: Contemporary Issues**

- Growth and stabilisation of Indian Economy – Role of fiscal and monetary policies
- Globalisation and exposure to adverse shocks
  - Globalisation in history
  - COVID and Indian economy: Monetary and Fiscal instruments
  - Global Financial crisis 2007-08 and Indian economy.
- External Sector Policies:
  - Trade Policy
  - Exchange rate policy
  - Investment and capital convertibility policies
- Sustainable Development Goals and Human Development
  - Correspondence between economic growth and development outcomes
  - Regional disparity in human and social development
  - Achievements in Education and Public Health & Nutrition

## **V. References:**

1. Acemoglu, D., & Robinson, J. (2021). Why nations fail. *The Origins of Power, Prosperity, and Poverty*.
2. Acharya, S. (2002), *India: Crisis, Reforms and Growth in the Nineties*, Working Paper No. 139, Centre for Research on Economic Development and Policy Reform, Stanford University.

3. Ahluwalia, I. J., & Little, I. M. D. (2012). *India's Economic Reforms and Development: Essays for Manmohan Singh*. Oxford University Press. Second Edition.
4. Arezki, R., & Sen, P. (2025). Solving India's Industrialization Puzzle. Project Syndicate.
5. Banerjee, A., & Iyer, L. (2005). History, institutions, and economic performance: The legacy of colonial land tenure systems in India. *American economic review*, 95(4), 1190-1213.
6. Bansil, P.C, (1975) *Agricultural Problems of India*, Vikas Publishing House Pvt. Ltd.
7. Basu, S.C. and Gulati, A. (2005), *Economic Reforms and Food Security: The Impact of Trade and Technology in South Asia*, Routledge.
8. Bhagwati, J.N.(1993), *India in Transition: Freeing the Economy*, Clarendon Oxford.
9. Bhalla, G.S. and Singh, G. (2001), *Indian Agriculture: Four Decades of Development*, Sage Publications.
10. Broadberry, S., & Gupta, B. (2009). Lancashire, India, and shifting competitive advantage in cotton textiles, 1700–1850: The neglected role of factor prices. *The Economic History Review*, 62(2), 279-305.
11. Datt, R. and Sundharam, K.P.M, (2024) *Indian Economy*, S. Chand & Company Ltd, New Delhi. 73<sup>rd</sup> Edition.
12. Glinskaya, E. and Lokshin, M. (2005), *Wage Differentials Between The Public And Private Sectors in India*, The World Bank.
13. Gulati, A., & Narayanan, S. (2003). The Subsidy Syndrome in Indian Agriculture. *OUP Catalogue*.
14. Gulati, A., & Sharma, A. (1995). Subsidy Syndrome in Indian Agriculture. *Economic and Political Weekly*, A93-A102.
15. Kapila, U. (2024-25), *Indian Economy Since Independence*, Academic Foundation, New Delhi. 35<sup>th</sup> Edition
16. Mattoo, A. and Stern, R.M. (2003), *India and the WTO*, World Bank Publication.
17. Mohan, T.T.R. (2005), *Privatisation in India: Challenging Economic Orthodoxy*, Routledge.
18. Mookherjee, D. (1997), *Indian Industry: Policies and Performance*, Oxford University Press.
19. Rao, C.H.H. (2005), *Agriculture, Food Security, Poverty and Environment: Essays on post-reforms India*, Oxford University Press.
20. Sengupta, D., Chakraborty, D. and Banerjee, P. (2006), *Beyond the Transition of WTO: An Indian Perspective on Emerging Issues*, Academic Foundation.
21. Varshney, A. (1998). *Democracy, Development, and the Countryside: Urban-rural Struggles in India*. Cambridge University Press, Chapter 2.

<b>Course: Growth and Development</b>	
<b>Type of Course:</b> Discipline Specific Core	<b>Code:</b> 24-ECO-D-256
<b>Semester:</b> IV	<b>Credits:</b> 4

### **I. Introduction to the Course:**

This course exposes the students to the concept of economic growth and development. The course provides knowledge of theories of growth and development. In addition to theoretical perspective, the course also develops a systematic perspective on issues and strategies of economic development.

### **II. Course Objectives:**

- To introduce students to the concepts pertaining to economic growth and development.
- To develop understanding of various theories of Economic Growth and Development.
- To expose students to the various issues associated with the process of growth and development.

### **III. Learning Outcomes:**

After the course, the students will be able to:

- Define and differentiate between economic growth and development
- Identify the various determinants of growth and development.
- Analyze the issues related to economic development and suggest measures to overcome them.

### **IV. Course Contents:**

#### **Unit- 1: Concepts of Economic Growth and Development**

- Meaning of Economic Growth: Definition, Measurement and Determinants
- Growth vs. Development; Indicators, Human Development Index
- Concept of Underdevelopment and Characteristics of Underdeveloped Countries
- Sustainable Development: Concept, Measurement and Scope

#### **Unit- 2: Theories of Growth and Development**

- Classical theory of Growth and Stagnation
- Vicious Circle Poverty
- Theory of Circular of Causation
- Rostow's Stages of Growth
- Structural Change and Lewis Model
- Balanced vs. Unbalanced Growth Theories.

**Unit- 3: Issues and Strategies of Economic Development**

- Poverty and Income Inequalities: Concepts and measurement, causes and Policies
- Population and Economic Development
- Capital Formation and Economic Development
- Technological change and Economic Development
- Role of State

**V. References:**

1. A.P. Thirlwall, Growth and Development 8e. New York : Palgrave McMillan, 2005.
2. David N. Weil, Economic Growth: Pearson, 2012
3. Debraj Ray, Development Economics, Oxford University Press, 2009.
4. Michael P. Todaro and Stephen C. Smith, Economic Development, 8e. Delhi : Pearson Education, 2003.

<b>Course: Money and Banking</b>	
<b>Type of Course:</b> Discipline Specific Core	<b>Code:</b> 24-ECO-D-257
<b>Semester:</b> IV	<b>Credits:</b> 4

### **I. Introduction to the Course:**

This course provides an in-depth understanding of money, banking systems, and monetary policy with a special focus on the Indian economy and global banking advancements. It explores the evolution of money, the structure of financial institutions, and the role of central banks in shaping monetary policy. Recent trends such as FinTech, digital payments, and the rise of Central Bank Digital Currencies (CBDC) are integrated to provide industry-relevant insights.

### **II. Course Objectives:**

- Understand the evolution of money, various monetary theories, and their application in modern economies.
- Analyse the structure and role of commercial and central banks in financial intermediation and credit creation.
- Evaluate monetary and fiscal policies and their impact on economic stability, inflation, and growth.

### **III. Learning Outcomes:**

- To be able to Explain the concepts, theories, and role of money in economic systems.
- To be assess the Indian banking system and recent technological advancements in banking.
- To evaluate monetary policy decisions and their macroeconomic implications.

### **IV. Course Contents:**

#### **Unit- 1: Money and Evolution**

- Money an overview- Definition and Classification of Money. Theories of Demand for Money - Various Approaches- Fisher's Transaction Approach, Cambridge's Cash Balance Approach, Keynes, Friedman.
- Digital Currencies (Cryptocurrencies) and CBDCs- Evolution, role, and impact on traditional monetary systems.
- Money Supply and Monetary Aggregates – Definition and measurement.

#### **Unit-2: Banking System- an overview**

- Banking System- Structure and Types. Central Bank- Role, Functions, and Credit Control Methods.
- Commercial Banks- Functions, Process of Credit Creation.
- Recent Advancements in the Banking System- Social Banking, Digital Banking, Online Banking, and Fintech Innovations.

**Unit- 3: Monetary Policy and Perspectives**

- Monetary Policy- goals, objectives and instruments, Monetary Policy Committee, Monetary Policy in India, Limitations of Monetary Policy with reference to India.

**V. References:**

1. Bhole, L. M., & Mahakud, J. (2011). *Financial Institutions and Markets* (5th ed.). Tata McGraw Hill.
2. Blanchard, O. (2020). *Macroeconomics* (8th ed.). Pearson.
3. Gupta, S. B (1982). *Monetary Economics - Institutions, Theory & Policy*, Publisher. S Chand
4. Mishkin, F. S. (2019). *The Economics of Money, Banking, and Financial Markets* (12th ed.). Pearson.
5. Mishkin, F. S., & Eakins, S. G. (2009). *Financial Markets and Institutions* (6th ed.). Pearson Education.
6. Rangarajan, C. (1999). *Indian Economy: Essays on Money and Finance*. UBS Publishers.
7. Reddy, Y. V. (2000). *Monetary and Financial Sector Reforms in India*. UBSPD, New Delhi.
8. Reserve Bank of India. (2023). *Report on Trends and Progress of Banking in India*.

## **Course: International Trade**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-305

**Semester:** V

**Credits:** 4

### **I. Introduction to the Course:**

This course introduces students to the fundamental theories, policies, and institutions of international trade. It examines the classical theories of trade, terms of trade, and the impact of globalization on trade patterns. The course also explores trade policies, tariffs, quotas, WTO negotiations, and the functioning of the balance of payments system. Special emphasis is placed on the role of exchange rate regimes and their implications.

### **II. Course Objectives:**

- To understand the basic principles and theories explaining international trade.
- To analyse trade policies, tariffs, quotas, and the institutional framework governing trade.
- To evaluate balance of payments, exchange rate systems, and global monetary arrangements.

### **III. Learning Outcomes:**

After successful completion of this course, students will be able to:

- Explain classical theories of trade and assess their applications in the real world.
- Critically analyse trade policies, tariff structures, and the role of GATT and WTO in regulating world trade.
- Interpret balance of payments data, exchange rate dynamics, and their impact on trade performance

### **IV. Course Contents:**

#### **Unit - 1: Introduction to International Trade**

- International Trade: Definition, Scope, Issues and Challenges of Trade.
- Theory of Opportunity Cost and Production Possibility Curve.
- Concept of Terms of Trade.
- Ricardian Theory of Trade and its Criticism.
- Heckscher-Ohlin Theory of Trade and its Criticism.

#### **Unit -2: Trade Policy**

- Free Trade and Economic Protection, Theory and Practice.
- Economic Effects of Tariff, Import Quota, Import Substitution and Export Promotion.
- Trade Negotiations under General Agreement on Tariff and Trade (GATT) and World Trade Organization (WTO).

#### **Unit -3: Balance of Payment and Exchange Rate**

- Balance of Payment: Meaning and its Components.
- Exchange Rate determination: Fixed and Flexible Exchange Rate.
- Disequilibrium in Balance of Payment and its adjustment Mechanism.
- Bretton Woods Monetary System and its Breakdown.

**V. References:**

1. Ellsworth, P. T. (1969). International Economics.
2. Haberler, G. (1935). The Theory of International Trade.
3. Södersten, B., & Reed, G. (1994). International Economics (3rd ed.).
4. Salvatore, D. (1983). International Economics.
5. Krugman, P. R., Obstfeld, M., & Melitz, M. (2018). International Economics: Theory and Policy (11th ed.). Pearson.

## **Course: Mathematics for Economics**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-306

**Semester:** V

**Credits:** 4

### **I. Introduction to the Course:**

This course introduces students to the fundamental mathematical tools required for economic analysis. It is designed for students pursuing multidisciplinary studies in the social sciences, with a focus on building a solid foundation in mathematics to support the study of economic theory, models, statistics, and econometrics. The course emphasizes both conceptual understanding and practical application, enabling students to effectively apply mathematical reasoning in economics. It is particularly relevant for students who wish to pursue higher studies or careers in economics.

### **II. Objectives:**

- To develop mathematical foundations for economic analysis.
- To learn the concepts of functions, limits, and continuity as applied in economics.
- To formulate and solve economic problems using mathematical skills.

### **III. Learning Outcomes:**

At the end of the course, students are expected to,

- Understand and demonstrate the knowledge of functions, differentiation and integration.
- Apply mathematical skills to analyze economic relationships.
- Build simple mathematical models to interpret and solve basic economic problems.

### **IV. Course Contents:**

#### **Unit -1: Basic concepts, Functions and Graphs**

- Mathematical proofs and mathematical induction
- Sets and set operations, Ordered pairs, the real numbers, natural numbers, integers, rational and irrational numbers; absolute value and intervals; inequalities
- The general concept of function, types of function (linear, quadratic, power, exponential, inverse); graphs of functions; properties of functions; Applications in Economics

**Unit-2: Limits, Continuity and Single variable Differential Calculus**

- Limits, continuity and differentiability, rules of differentiation (simple differentiation, sums, products, and quotients)
- Second and higher order derivatives, power rule, chain rule, implicit differentiation; Linear approximation and differentials
- Quadratic approximations, Elasticity, Intermediate-value Theorem; Indeterminate forms and L'Hopital's rule; Applications in Economics

**Unit-3: Single variable optimization and Integral Calculus**

- Stationary points of a function, Maxima and Minima (local and global); Convexity and Concavity of functions; Points of inflection; the Extreme-value Theorem; The Mean-value Theorem; Optimization of economic functions
- Rules of integration, integration by parts, integration by substitution, indefinite integral, Definite Integral, Proper and Improper integral; Areas under curves and economic application of integration

**V. References:**

- Allen, R.G.D.(1974), *Mathematical Analysis for Economists*, McMillan press, London
- Chiang, A. C. & Kevin Wainwright (2005) *Fundamental Methods of Mathematical Economics*, Fourth Edition, McGraw-Hill.
- Chiang, A. C. (1984), *Fundamental Methods of Mathematical Economics*, 3rd Ed, McGraw-Hill.
- Dasgupta, A., & Thakur, S. N. (2014). *Degree Level Set Theory*. Bharti Bhawan: Publishers & Distributors.
- Dowling, E. T. (2001). *Schaum's Outline of Theory and Problems of Introduction to Mathematical Economics*. The McGraw Hill.
- Handerson, Quandt. (1980). *Microeconomic Theory, A Mathematical Approach*, Third Edition, McGraw Hill.
- Hoy, M., J. Livernois, C. McKenna, R. Rees and T. Stengos (2001), *Mathematics for Economics*, 2nd Edition Prentice Hall, India.
- Knut Sydsaeter and Peter J. Hammond (2005), *Mathematics for Economic Analysis*. Pearson Educational Asia: Delhi, 4th Indian reprint.
- Rosser, Mike. (2003). *Basic Mathematics for Economists*, Second Edition, Routledge, Taylor & Francis Group.
- Sydsaeter, K., & Hammond, P. J. (2024). *Essential Mathematics for Economic Analysis*. Pearson Education.

## **Course: Statistics for Economics**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-355

**Semester:** VI

**Credits:** 4

### **I. Introduction to the Course:**

At under graduate level, the basic understanding of Statistics is essential to develop the economic models. Therefore, this course provides an extensive and through use of statistical concepts. The main focus will be on understanding how the statistical tools can be used to analyse the economic problems.

### **II. Course Objectives:**

- To advance the statistical skills necessary to study Economics through data.
- To know the basic concept of Statistics used in Economics.
- To gain insights and understand the patterns and relationships from data.

### **III. Learning Outcomes:**

- On successful completion of this course, students will be able to
- Offers the analytical skills required for solving problems in economics.
- Apply the various tools of Statistics in economic analysis.
- Analyse and interpret the data quantitatively to evaluate the economics policy.

### **IV. Course Contents:**

#### **Unit-1: Introduction, Descriptive Statistics and Bi- variate Analysis**

- Definition and Role of Statistics; Types of Data-Quantitative, Qualitative, Scales of Measurement- Nominal, Ordinal, Interval, Ratio;
- Measures of central tendency; Measures of dispersion; Measures of Skewness and kurtosis; Measures of economic inequality
- Product moment– covariance, correlation, rank correlation, Simple linear regression; method of least squares; linear and exponential trend.

#### **Unit-2: Probability and Probability Distributions**

- Random experiment, sample space and events;
- Classical, empirical and axiomatic definitions of probability; addition and multiplication theorems;
- Conditional probability, independent events and Baye's rule;

- Random variable; mathematical expectation -mean and variance of a random variable, Binomial, Poisson and Normal distributions.

### **Unit-3: Sampling and Sampling Distributions**

- Population versus Sample, Random Variables, Sampling Errors; Non-Random or Judgement Sampling, Methods of Random Sampling – Simple Random, Cluster, Stratified, Systematic; Sample Statistic – Sample Mean and Sample Variance; Standard Error.
- Z, Chi-Square, T and F Distributions.
- Law of Large Numbers, Central Limit Theorem, Sampling Distribution of Sample Mean, Sampling Distribution of Sample Variance.
- Sampling from Finite and Infinite Population, Sampling from Normal Population

### **V. References:**

1. Nagar, A.L. and R.K. Das. (1983). Basic Statistics. Oxford University Press, New Delhi
2. Gupta, S. P. (2005). Statistical Methods. S. Chand & Sons, New Delhi
3. Freund, John E. (1979). Modern Elementary Statistics. Prentice Hall of India, New Delhi.
4. Speigal, M.R. (1992). Theory and Problems of Statistics. McGraw Hill Book, London.
5. Thukral, J. K. (2010). Business Statistics. Taxmann Publications, New Delhi
6. P.H. Karmel and M. Polasek (1978). Applied Statistics for Economists, (4th Ed). Pitman, Australia
7. Allen Webster (1997). Applied Statistics for Business and Economics: an Essential Version, (3rd Ed). McGraw-Hill.
8. Lind, Douglas A., William G. Marchal, and Samuel A. Wathan (2006). Business Statistics for Business & Economics, 5th ed. Boston: McGraw-Hill Irwin.

### **Other Books**

1. Allen, R.G.D. (1949). Statistics for Economists. Hutchinson's University Library, London, UK.
2. Croxton, F.E., D.J. Cowden and S. Klein (1973). Applied General Statistics. Prentice Hall, New Delhi.
3. Gupta, S.C. & V.K. Kapoor (1993). Fundamentals of Applied Statistics. S. Chand and Sons, New Delhi.
4. Freund John E. & Ronald E. Walpole (1987). Mathematical Statistics. Prentice-Hall of India, New Delhi.
5. Devore, J. (2012). Probability and Statistics for Engineers, 8th ed. Cengage Learning.
6. Miller, I., Miller, M. (2017). J. Freund's Mathematical Statistics with Applications, 8th ed. Pearson.
7. Hogg, R., Tanis, E., Zimmerman, D. (2021) Probability and Statistical inference, 10th Edition, Pearson

**Course: Public Economics**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-356

**Semester:** VI

**Credits:** 4

**I. Introduction:**

This course helps the students to understand the role of the government in the economy. This course also familiarizes causes of market failure in neo-classical framework and why government intervenes to produce public goods. This course also introduces sources of government revenues and its welfare implications. Furthermore, this course also exposes the students with causes of growth and effects of public expenditure on the economy. Students will understand the consequences and sustainability of public debt with special focus to India. This course will help the students to understand the government budgets.

**II. Course Objectives:**

- To explain the theoretical foundations of the role of government.
- To understand the principles of taxations and fairness of tax systems.
- To analyze the impact of public expenditure and public debt on the economy.

**III. Learning Outcomes:**

At the end of the course, students are expected,

- Analyze the role and functions of government in the economy.
- Evaluate different sources of government revenue and assess the equity and efficiency of taxation.
- Apply principles of public finance to critically evaluate the government policies on taxation, public expenditure, and public debt and its implication.

**IV. Course Contents:**

**Unit-1: Meaning and Scope of Public Economics**

- Meaning and scope of Public Economics; Public and Private Finance; Principle of Maximum Social Advantage
- Functions of Government and Entrepreneurial role of state in Developing country
- Private, Public, Merit, Pure and Impure Public Goods, Quasi-Public Goods
- Problems of Preference Revelation and Externalities

**Unit-2: Public Revenue and Taxes**

- Sources of Public Revenue; Buoyancy and Elasticity of a Tax
- Division of Tax Burden: Ability to pay, Benefit received and Cost of Service approach
- Objectives and Classification of Taxes; Canons of Taxation
- Incidence, Impact, and Shifting of Tax Burden; Theories of Tax Shifting

- Measuring the Fairness of Tax Systems: Average and Marginal Tax Rates, Vertical and Horizontal Equity
- Tax Base; Haig–Simons Definition; Deviations due to Externalities and Public Goods; Units of Taxation
- Value Added Tax (VAT), Goods and Services Tax (GST) and its implications on state finance

### **Unit- 3: Public Expenditure, Public Debt and Fiscal Federalism**

- Meaning, Importance, and Growth of Public Expenditure
- Canons of Public Expenditure, Effects of Public Expenditure
- Theories of Public Expenditure- Wagner’s Law and Peacock–Wiseman Hypothesis and Colin-Clarks critical limit theory
- Public Debt: Meaning, Types, Debt sustainability and Debt Redemption.
- Introduction to Government Budgets

### **V. References:**

#### **Main Readings:**

1. Gruber, Jonathan (2022) Public Finance and Public Policy, 2022, 7th Edition, Macmillan Publication.
2. Hindriks, J. & Myles, G.D (2013). Intermediate Public Economics. 2nd Edition, The MIT Press, Cambridge
3. Jain, N. (2025) Union Budgets 2014-24: An Analysis. Aakar Books; First Edition; New Delhi, India.
4. Mazzucato, M. (2011). The entrepreneurial state. Soundings, 49(49), 131-142.
5. Musgrave, R. A., and Musgrave, P. B. (2004) Public Finance: Theory and Practice, Tata Mc Graw-Hill Book Company, Fifth Edition, New Delhi.
6. Rao, M. G. (2022). Studies in Indian Public Finance. Oxford University Press.
7. Reddy and Reddy (2019). Indian Fiscal Federalism, Oxford Publication.

#### **Additional Readings:**

1. Bagchi, Amaresh (2005), Readings in Public Finance, OUP.
2. Bailey, S. J. (1995). Public Sector Economics: Theory, Policy and Practice. Basingstoke: Macmillan.
3. Bailey, Stephen J. (1999), Local Government Economics: Principles and Practice, Macmillan Press Ltd, Hampshire and London
4. Bhattacharjee, G. (2016). Special Category States of India, Oxford Publications.
5. Buiter, W.H. (1990): Principles of Budget and Fiscal Policy, MIT Press.
6. Chakraborty, P., & Shanmugam, K. R. (Eds.). (2024). Fiscal Policy and Public Financial Management. Oxford University Press.
7. David, N. and Nicholas, S. (eds.) (1987): The Theory of Taxation for Developing Countries, OUP.
8. Favaro, Edgardo M. and Ashok K. Lahiri (eds)(2004), Fiscal Policies and Sustainable Growth in India, OUP, New Delhi.
9. Herber, B. P. (1996). Modern Theory of Public Finance, Richard D. Irwin Inc., Illinois.
10. Hyman, D.N (2010). Public Finance: A Contemporary Application of Theory to Policy, 10th Edition, South-Western CENGAGE Learning

11. John Cullis and Philip Jones (2009). *Public Finance and Public Choice: Analytical Perspectives*, Third Edition, Oxford University Press.
12. Karnam, G. (2018). *Public Budgeting in India: Principles and Practices*, Springer Publication
13. Keen, Michael (2009), "What Do (and Don't) We Know about the Value Added Tax?", *Journal of Economic Literature*, Vol. 47, No. 1, pp. 159-70.
14. Leach, J. (2004). *A Course in Public Economics*. Cambridge University Press.
15. Ministry of Women and Child Development (2007), *Gender Budgeting Handbook for Government of India Ministries and Departments*, GOI.
16. Mishan, E.J. (1987): *Cost-Benefit Analysis: An Informal Introduction*, George Allen and Unwin, London.
17. Mundle, Sudipto (ed.) (1997), *Public Finance: Policy Issues for India*, Delhi: Oxford University Press.
18. Musgrave, Richard A. (1989). *Public Finance in Theory and Practice*, Mc Graw-Hill Book Company, New York.
19. Myles, G. D. (1995). *Public Economics*. Cambridge University Press.
20. Oommen, M.A. (2006), "Fiscal Decentralisation to the Sub-State Level Governments", *Economic and Political Weekly*, 41(10), 897-903.
21. Rangarajan, C., & Srivastava, D. K. (2024). *Federalism and Fiscal Transfers in India*. Oxford University Press.
22. Reddy, Y. V., Ray, P., & Chakraborty, P. (2024). *Financial and Fiscal Policies: Crises and New realities*. Oxford University Press.
23. Report of Various Finance Commissions; Govt Budgets of Various Years
24. Reserve Bank of India, *Handbook of Statistics on the Indian Economy*, Various Years.
25. Reserve Bank of India, *State Finances - A Study of Budgets*, Various Years.
26. Rosen, H. and Gayer, T. (2010). *Public Finance*, The McGraw-Hill.
27. Sarma, J. V. M. (2018). *Public Finance: Principles and Practices*. Oxford University Press.
28. Shanmugam, K. R. (Eds.). (2025). *India's Public Finance and Policy Challenges in the 2020s*. Singapore: Springer Nature Singapore.
29. Stiglitz, J. E., & Rosengard, J. K. (2015). *Economics of the Public Sector: Fourth International Student Edition*. WW Norton & Company.
30. Tiebout, C.M. (1956), "A Pure Theory of Local Expenditure", *J. of Political Economy*, 64(5), 416-24.

## **Course: Intermediate Microeconomics**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-406

**Semester:** VII

**Credits:** 4

### **I. Course Description:**

This course deepens the understanding of microeconomic theory by exploring imperfect market structures, factor pricing, and welfare economics. It examines how markets depart from perfect competition, how factors of production are rewarded, and how economic welfare is assessed through classical and modern frameworks.

### **II. Course Objectives:**

- Analyse pricing and output determination under imperfect competition.
- Examine the determination of factor incomes - rent, wages, interest, and profit.
- Introduce welfare economics and major theoretical approaches to social welfare.
- Study causes market failure and their implications for efficiency and welfare.

### **III. Learning Outcomes:**

**After completing the course, students will be able to:**

- Explain and compare firm behaviour under monopoly, monopolistic, and oligopolistic structures.
- Apply theories of factor pricing to analyse income distribution.
- Discuss classical and modern approaches to welfare measurement.
- Identify sources of market failure and their effects on welfare.

### **IV. Course Content:**

#### **Unit 1: Market Structures: Imperfect Competition**

- Price Discrimination: Degrees, determinants, and welfare effects; Monopoly Power: Lerner Index
- Monopolistic Competition: Product differentiation, firm equilibrium, and excess capacity;
- Duopoly: Cournot, Bertrand,; Non-Collusive Oligopoly - Chamberlin Models, Collusive Models: Cartels, price leadership, and kinked-demand curve.

#### **Unit 2: Factor Pricing**

- Marginal Productivity Theory of Distribution. Rent: Ricardian theory, scarcity rent, differential rent, and modern approaches to rent, Quasi-Rent.

- Wage Determination: Wages under perfect competition. Wages under imperfect competition (monopsony and trade unions). Collective bargaining, minimum wage policy, and efficiency wages.
- Theories of Profit: Dynamic theory of profit. Risk and uncertainty theory. Schumpeterian theory of innovation and profit.

### **Unit 3: Welfare Economics and Market Failure**

- Introduction to Welfare Economics: Meaning, scope, and objectives.
- Marshallian and Pigovian Approaches: Cardinal measurement, consumer's surplus, and welfare change.
- Pareto Efficiency: Efficiency in production, consumption, and exchange.
- Social Welfare Functions: Bergson–Samuelson framework. Compensation Criteria: Hicks, Kaldor, and Scitovsky tests.
- Market Failure: Externalities, public goods, and imperfect information.

### **V. References:**

#### **Core Texts**

1. Varian, H. R. (2019). *Intermediate Microeconomics: A Modern Approach*. W.W. Norton.
2. Pindyck, R. S., & Rubinfeld, D. L. (2017). *Microeconomics*. Pearson Education.
3. Krugman, P., & Wells, R. (2018). *Microeconomics*. Macmillan.
4. Nicholson, W., & Snyder, C. (2016). *Microeconomic Theory: Basic Principles and Extensions*.
5. Mankiw, N. Gregory. (2018). *Principles of Microeconomics (8th Edition)*. Cengage Learning.

#### **Supplementary References**

1. Salvatore, D. (2006). *Schaum's Outline of Microeconomic Theory*. McGraw-Hill.
2. Lipsey, R., & Chrystal, A. (2020). *Economics*. Oxford University Press.
3. Baumol, W. J. (1952). *Welfare Economics and the Theory of the State*. Harvard University Press.
4. Pigou, A. C. (1932). *The Economics of Welfare*. Macmillan.
5. Knight, F. H. (1921). *Risk, Uncertainty and Profit*. Houghton Mifflin.
6. Schumpeter, J. A. (1934). *The Theory of Economic Development*. Harvard University Press.

## **Course: Introductory Econometrics**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-407

**Semester:** VII

**Credits:** 4

### **I. Introduction to the Course:**

Basic Econometrics (24-ECO-C-300), intends to equip students with fundamentals of data analysis and econometric techniques for scientific enquiries. Besides equipping students in Ordinary Least Square (OLS) estimation and hypothesis testing under Gauss Markov theorem, students also learn to address issues in data such as skewness and outliers before modelling to minimise the problems that models may suffer from. The course also equips students with ability to compute frequently used socio-economic metrics (e.g., group-based averages, elasticities, growth rates and Gini coefficient) so that they can do meaningful data analysis.

### **II. Course Objectives:**

- Foundations of a scientific empirical enquiry for socio-economic themes.
- Deeper understanding of demands of Regression Analysis
- Socio-Economic analysis: Compute indexes that are frequently needed for socio-economic analysis and address data issues so that standard models may produce better result.

### **III. Learning Outcomes:**

After completing the course students can

- Examine the nature of distribution a socio-economic variable may have and how to use it for analysis.
- Evaluate conditions that needs to be met before attempting a Regression Analysis.
- Interpret and draw statistically valid inferences from analysis and devise tools (visual or numeric) to communicate those results to non-experts.

### **IV. Course Contents:**

#### **Unit- 1: Foundations of Data Analysis**

- Demands of a scientific empirical enquiry, Conventional (deductive) and modern (inductive) approaches to model specification, modelling an average (univariate modelling), Kinds of averages, mean-based versus order-based sample statistics.
- Grasping ideas around sampling distribution for good grasp of Unbiasedness and standard error of sample statistic or estimator and basic assumptions, Sample mean as best linear unbiased estimator (BLUE), Variance (standard error) of sample mean versus sample median.

- Use of standard error in inference making. Deriving unbiased estimator of population variance to estimate standard error, Identifying Outliers, Skewness and its treatment through data transformation. Exploratory Data Analysis tools – Density Plot, Histogram, Boxplot, stem and Leaf Plot, Q-Q Plot and P-P Plot, Statistical tests of normality.
- Computing frequently used concepts in socio-economic analysis: e.g., averages, growth rates, elasticities.

### **Unit- 2: Simple (Classical) Linear Regression Analysis**

- Bivariate Analysis: Exploratory visual plots – scatter plot, loess (localised mean) curve
- Bivariate regression analysis - Population regression function and Sample regression Function, Significance of stochastic disturbance term, Problem of estimation of bivariate regression model – CLRM assumptions or Gauss Markov Theorem
- Method of OLS estimation, Goodness of fit, Desirable properties of OLS estimators, Setting confidence intervals and Hypothesis testing
- Criticality of non-stochasticity assumption of independent variable, Extension of bivariate regression model.

### **Unit- 3: Multivariate Regression Analysis**

- Multivariate Regression Equation, OLS estimation of Partial Regression Coefficients, Coefficient of Determination ( $R^2$ ) and Adjusted  $R^2$  in multivariate case, Partial Correlation Coefficients of first order, Problem of Inferences and Hypothesis Testing.
- Use of F-test judging nested models.
- Introduction to implications of violations of standard assumption of Gauss Markov Theorem i.e., Heteroskedasticity, Autocorrelation and Multicollinearity.

### **V. References:**

1. Goldberger, Arther S. (1998). *Introductory Econometrics*. Harvard University Press, Cambridge, Massachusetts.
2. Gujarati D (1992). *Essential Econometrics*. McGraw Hill, Singapore
3. Gujrati, D 2007. *Basic Econometrics*. McGraw Hill, 4<sup>th</sup> edition, New Delhi
4. Johnston, J. and Dinardo(1997), *Econometric Methods*. 4th Edition. McGraw Hill, New York.
5. Koutsoyiannis A (1977). *Theory of Econometrics*. The Macmillan Press Ltd,
6. Mukherjee, C., White, H., & Wuyts, M. (2013). *Econometrics and data analysis for developing countries*. Routledge.
7. Wooldridge, Jeffrey M. (2016). *Introductory econometrics a modern approach*, South-Western cengage learning, 2016.

## **Course: Intermediate Macroeconomics**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-458

**Semester:** VIII

**Credits:** 4

### **I. Introduction to the Course:**

This course introduces the students to theories of consumption, investment and rate of interest. It discusses various alternative theories of output and employment determination in a closed economy using analytical framework like IS-LM model and role of macroeconomic policies. This course also discusses the concepts of inflation, unemployment and expectations.

### **II. Course Objectives:**

This course provides basic understanding of major theories of consumption and investment in macroeconomics. It discusses the determination of aggregate macroeconomic variables like saving, interest rate, investment, output, and inflation. It also introduces students to simple analytical frameworks (e.g. the IS-LM model) for determination of equilibrium output.

### **III. Learning Outcomes:**

At the end of this course students should be able to:

- Analyse the major macroeconomic issues and their implications for the real economy.
- To introduce basic concepts of the money market and product market
- Learn the connection between macroeconomic variables, fiscal and monetary policies through IS-LM model.

### **IV. Course Contents:**

#### **Unit-1: Theories of Consumption & Investment**

- Consumption: Absolute Income Hypothesis, Relative Income Hypothesis, Permanent Income Hypothesis, and Life Cycle Hypothesis.
- Investment: Determinants of Investment, Business Investment, Residential Investment and Inventory Investment.
- Marginal Efficiency of Capital, Marginal Efficiency of Investment and Interest Rate.
- Acceleration Principle.

#### **Unit-2: Theory of Money, Interest and Income**

- Keynesian Theory of Interest: Determination of Rate of Interest.
- Demand for Money and Supply of Money and their Effect on Equilibrium Rate of Interest.
- Liquidity Trap and Policy Implications.
- IS-LM Model: The General Equilibrium of Product and Money Market.
- Relative Effectiveness of Monetary and Fiscal Policies.

**Unit-3: Theory of Inflation, Unemployment and Expectations**

- Types and Theories of Inflation: Demand Pull and Cost Push Inflation.
- Effects of Inflation and measures to control Inflation.
- Trade-off between Inflation and Unemployment: Short Run and Long Run Phillips Curve.
- Adaptive and Rational Expectation Hypothesis.

**V. References:**

1. Blanchard O., Macro Economics 7<sup>th</sup> Edition
2. Bradley R. Schiller, Macro Economy Today, Eleventh Edition, Tata Mcgraw-Hill.
3. John Lindauer, Macroeconomics Third Edition.
4. Lioyd G. Reynolds, Macroeconomics Analysis and Policy Sixth Edition.
5. N. Gregory Mankiw, Macroeconomics
6. Richard T Froyen, Macro Economics: Theories and Policies 7<sup>th</sup> Edition
7. Rudiger Dornbush, Stanley Fischer, Richard Startz, Macroeconomics Eleventh Edition.
8. S. K. Aggarwal, National Income Accounting Latest Edition.
9. Shapiro E., Macro Economic Analysis Second Edition.
10. Wilfred Beckerman, An Introduction to National Income Analysis.
11. William Branson, Macro Economic Theory and Policy
12. William H. Branson, Macroeconomic Theory and Policy Second Edition.
13. William J. Baumol, Macroeconomics Theory and Policy

## **Course: International Finance**

**Type of Course:** Discipline Specific Core

**Code:** 24-ECO-D-459

**Semester:** VIII

**Credits:** 4

### **I. Introduction to the Course:**

This course offers an advanced study of international finance with a strong emphasis on exchange rate dynamics, international monetary systems, and the challenges of financial globalization. It blends theoretical models with empirical applications and case studies, enabling students to critically analyse global financial issues and their implications for emerging economies such as India.

### **II. Course Objectives:**

- Introduces the basic concept, nature and scope of international finance
- Develops the understanding of the working of international financial markets and institutions
- Develops the theoretical foundation of exchange rate determination in the foreign exchange market

### **III. Learning Outcomes:**

By the end of the course, students will be able to:

- Broad idea about the nature and scope of international finance
- Understand the foreign exchange market, in specific, Indian foreign exchange market.
- Understand the determination of exchange rate in the foreign exchange market.

### **IV. Course Contents:**

#### **Unit-1: The Foreign Exchange Market**

- Foreign Exchange Market – Structure and Functions
- Foreign Exchange Market Products
- Foreign Exchange Market Trading
- Efficiency of Foreign Exchange Market
- Foreign Exchange Market in India

#### **Unit-2: Balance of Payment and Exchange Rate Determination**

- Balance of Trade and Balance of payment
- Fixed Exchange Rate System
- Flexible Exchange Rate System
- Floating Exchange Rate System
- Theories of Balance of Payment and Exchange Determination- PPP, Elasticity Approach, Income Absorption Approach, Monetary Approach

**Unit-3: The International Monetary System**

- Overview of the International Financial Market
- A Brief History of the International Monetary System
- The European Monetary System and Monetary Union
- Alternative Exchange Rate System
- Exchange Rate System and Policies in India

**V. References:**

1. Brian Tew: The Evolution of International Monetary System, Hutchinson, 1985
2. Alan C Shapiro: Multinational Financial Management, Seventh Edition, John Wiley & Sons, 2003
3. Richard M Levich: International Financial Markets, McGraw Hill International Edition, 2001
4. A.V. Rajwade: Foreign Exchange, International Finance and Risk Management, Academy of Business Studies, 1996