# UNIVERSITY OF KALYANI

## **SYLLABUS**

## FOR THREE YEARS B.A/B.Sc DEGREE COURSE

(HONOURS)

IN

## **ECONOMICS**

According to the New Examination Pattern

Part – I, Part – II & Part – III

WITH EFFECT FROM THE SESSION

2017-18

Paper-I : Economic Theory I (100 Marks)

**Group –A: Microeconomics (50 marks)** 

## **Unit 1: Markets and Prices**

- (a) Introduction to Microeconomic Theory-Positive versus Normative Analysis
- (b) Markets and Prices : Decision takers-households, firms and central authorities –absolute and relative prices
- (c) Supply and Demand-market mechanism –market equilibrium-elasticities of supply and demand-market equilibrium-Existence, Uniqueness and Stability of Equilibrium (Walrasian and Marshallian approach)
- (d) Effects of Changing Market Conditions-Government intervention-price controlcomparative statics

## **Unit 2: Theory of Consumer Behaviour**

- (a) The budget constraint-feasible set-change of budget line-taxes, subsidies and rationing
- (b) Consumer preferences-assumption about preferences-indifference curves –marginal rate of substitution-shape of indifference curves
- (c) Cardinal Utility-examples of utility functions-marginal utility
- (d) Optimal Choice-consumer demand-price change and income changes-normal versus inferior goods-Engel curves-income effect, substitution effect and Giffen good
- (e) Price Consumption Curve and the demand curve-Slutsky decomposition-ordinary versus compensated demand curve
- (f) Elasticity of demand-direct effect, cross effect, substitutes and compliments
- (g) Consumer surplus-compensating variation and equivalent variation
- (h) Revealed preference-weak and strong axiom –Cost of Living Index
- (i) Intertemporal Choice –saving and borrowing
- (j) Choice under uncertainty-expected utility –risk aversion and risk preference-fair insurance

## **Unit 3: Production Cost and Theory of Firms**

(a)Technology and technological efficiency-production function –properties of production function with one variable input-average and marginal product

(b)Law of Diminishing Marginal Returns

(c) Isoquants, input flexibility, diminishing rate of factor substitution-long and short runreturns to scale-homogenous and homothetic production function-Cobb Douglas and CES production function

(d) Iso cost curves

(e) Optimizing behaviour of the firm

No. of Classes 70

**Total No. of Classes 140** 

No. of Classes 10

## npliments

No. of Classes 20

- (f) Economic cost versus accounting cost, opportunity cost, sunk cost, fixed cost and variable cost
- (g) Economies of scale and economies of scope

- 1. Robert S. Pindyck, Daniel L. Rubinfeld Microeconomics 8<sup>th</sup> Edition, Pearson Education
- 2. H.R. Varian Intermediate Microeconomics
- 3. Gravelle and Rees: Microeconomics, Pearson

## **Additional References:**

1. David Besanko and Ronald R. Braeutigam. Microeconomics: An Integrated. Approach. John Wiley & Sons, Inc., New York, USA,

#### Group B: Macroeconomics (50 Marks)

## **Unit 1: Introduction to Macroeconomics**

 a. Definition of Macroeconomics – Macroeconomics vs. Microeconomics - Basic Macroeconomic Variables

## **Unit 2: National Income Accounting**

- a. Definitions GDP, GNP, NNP, NI, PI,
- b. Relation between GDP, GNP, NNP, NI, PI
- c. GDP deflator, Real and Nominal GDP
- d. Methods and Problems of Measurement of GDP/GNP Factor Share Method, Expenditure Method, Value Addition Method
- e. External Sector of an Economy

## **References:**

- 1. Stone and Stone, National Income and Expenditure
- 2. Dornbush and Fisher, Macroeconomic Theory
- 3. Froyen, Macroeconomic Theory

## Unit 3: Determination of Output, Employment and Other Macroeconomic Variables- I

No. of classes - 27

- a. Evolution of Macroeconomic Theory
- b. Classical Macroeconomics Say's Law, Quantity Theory of Money, Classical Model of Income Determination, Neutrality of Money, Classical Dichotomy, Fiscal Policy
- c. Great Depression

## No. of classes - 6

No. of classes - 70

No. of classes - 2

- d. Simple Keynesian model
  - i. Aggregate Demand : \_ Components Consumption, Investment , Government Expenditure and Net Exports
  - ii. Consumption Function \_ Consumption and Savings
  - iii. Aggregate Demand and Autonomous Spending
  - iv. Equilibrium Output- Keynesian Cross Diagram
  - v. Multiplies
  - vi. Stability of Equilibrium Output
  - vii. Paradox of Thrift
  - viii. Government Sector Government Budget The Balanced Budget Multiplier
  - ix. Taxes as a function of Income
  - x. Multiplies and changes in tax rate

- 1. Mankiw, Macroeconomics
- 2. Dornbush and Fisher, Macroeconomic Theory
- 3. Froyen, Macroeconomic Theory
- 4. Branson, Macroeconomic Theory and Policy
- 5. RGD Allen, Macroeconomic Theory
- 6. G. Ackley, Macroeconomics

## Unit 4: Determination of Output, Employment and Other Macroeconomic Variables - II

No. of classes - 35

- a. IS LM Model
  - i. The Goods Market- Consumption Demand- Investment Demand
  - ii. Planned Investment and Interest Rate
  - iii. Good's Market Equilibrium IS Curve
  - iv. Derivation of IS Curve Slope, Positions of the IS Curve Excess Supply and Excess Demand in Commodity and Asset Market
  - v. Wealth Budget Constraint Nominal and Real Form The Demand for Real Balance
  - vi. Supply of Money and Money Market Equilibrium- LM Curve Slope and Position of the LM Curve
  - vii. Equilibrium in Goods and Asset Market
  - viii. Changes in Equilibrium Levels of Income and Interest Rate
  - ix. Adjustment Towards Equilibriums Comparative Statics and Dynamics in a Formal Model
  - x. Monetary Policy- Transmission Mechanism
  - xi. Liquidity Trap Interest Inelasticity

- xii. Fiscal Policy and Crowding Out
- b. Complete Keynesian Model
- i. Supply of Output Aggregate Production Function
- ii. Aggregate Demand for Labour Keynes' Relative Wage Hypothesis Downward Inflexibility of Wage
- iii. Aggregate supply function Relation Between Aggregate Supply and Price
- iv. Aggregate Demand Function Derivation of Aggregate Demand Curve
- v. Shift in Aggregate Demand and Supply Curve
- vi. Monetary and Fiscal Policy
- vii. Determination of Aggregate output, Employment, Rate of Interest and Price
- viii. Comparison of Keynesian and Classical Theory

- 1. Mankiw, Macroeconomics
- 2. Dornbush and Fisher, Macroeconomic Theory
- 3. Froyen, Macroeconomic Theory
- 4. Branson, Macroeconomic Theory and Policy
- 5. RGD Allen, Macroeconomic Theory
- 6. G. Ackley, Macroeconomics

#### **PAPER – II: Quantitative Techniques (100Marks)**

**Group – A : Statistics (50Marks)** 

#### **Unit 1: Preliminaries**

Definition and meanings of Statistics, Role of Statistics in Economics. Statistical Data – Primary and Secondary Data - Time Series Data, Cross - Section Data and Pooled Data. Variable (discrete and continuous) and Attribute. Population-Sample-Parameter-Statistic. Methods of collection of Data. Tabulation-Frequency Distribution - Cumulative Frequency Distribution (more than and less than Type). Graphical Presentation of Data-Line diagram, Bar diagram, Histogram, Frequency Curve, Ogives & Pie diagram.

#### **Unit 2: Characteristics of Univariate Frequency Distribution** No. of Classes 22

Measures of Central Tendency - Mean (A.M., G.M., H.M.), Median, & Mode. Measures of dispersion - Range - Mean Deviation - Quartile deviation - Standard Deviation - Coefficient of Variation. Measures of inequality (income or Asset) - Lorenz curve-gini Coefficient. Concept of Moments – Raw & Central their relations. Measures of Skewness and Kurtosis.

**Total No. of Classes 145** 

No. of Classes 70

#### Unit 3: Characteristics of Bivariate Frequency Distribution No. of Classes 18

Correlation : Bivariate Table-Scattered diagram. Linear Correlation Coefficient (Karl Person)calculation for grouped and ungrouped data-properties-uses-limitations, Spearman's Rank Correlation Coefficient (without tie) – Kendall's Rank Correlation Coefficient.

Regression : Two variable linear regression, analysis – Least Squares Method – interpretation of regression coefficients – relationship between correlation coefficient and regression coefficients.

#### **Unit 4: Time Series**

Importance of time series analysis in economics – Components – Determination of Regular Trend (Fitting Straight line trend & exponential growth equation) and Seasonal Variation (Moving Average Method)-Forecasts.

#### **Unit 5: Index Numbers**

# Purpose and uses of index number. Concept – price relative- quantity relative – value relative. Laspeyer's – Paasche's and Fisher's indices. Fixed base and Chain base index-base change. Concept and Uses of Consumer Price Index (CPI), Wholesale Price Index (WAPI) & Producer Price Index (PPI). Problems in the construction and limitations of index numbers. Tests for ideal index number.

#### **References:**

- 1. Goon, A.M., M.K. Gupta and B. Dasgupta (2002). Fundamentals of Statistics, Vol. I & Vol. II, the World Press Ltd., Calcutta.
- 2. Nagar, A.L. and R.K. Das (1997). Basic Statistics, Oxford University Press, Bombay.

3. Croxton, F., D. Crowden and S. Klein (1973). Applied General Statistics, Prentice Hall of India, New Delhi.

- 4. Kendall, M.G. et al. The Advanced Theory of Statistics, Vol. I, II, III Griffin (latest edition).
- 5. Gupta, S.C. and V.K. Kapoor (1993). Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
- 6. Boven, E. and N. Starr (1985), Basic Statistics for Business and Economics Mc Graw Hill (International).
- 7. Yule, G. and M. Kendall, Introduction to the Theory of Statistics.
- 8. Economic Survey, Govt. of India, 2004-05 (for compilation and uses of different indices).

## No of Classes 10

## **Additional References** :

1. N.G. Das - Statistical Methods - Vol. I & II

2. J. Sarkhel and S.K. Dutta - An Insight into Statistics, Vol. I & II

## **Group – B: Mathematical Economics (50 Marks)**

No. of Classes 75

## Unit 1: Basic Concepts with Economic illustrations No. of Classes 15

Role of Mathematics in Economics Analysis, Concepts of Variables, Constants, and Parameters, A.P. and G.P., The real number system Functions, Types of function – straight Line, rectangular hyperbola, parabolic, circular, exponential and logarithmic and their geometrical representations, Slope of the Line, Inverse function, Homogeneous function, Homothetic function, Equations and identities, inequalities, Systems of Equations.

## Unit 2: Calculus and its applications in Economics

#### No of Classes 35

One and Several (but emphasis should be on two) variable functions.

**Differential Calculus :** Concepts of first and second order derivatives, rules of derivativesaddition, subtraction, product and division, and derivatives of functions; Concepts of partial derivatives.

**Maxima and Minima :** unconstrained optimization, necessary and sufficient conditions for local optima, notions of concavity and convexity of functions, points of inflexion. Constrained optimization (equality constraints) – the method of Language multipliers, interpretation of the necessary conditions and of the Lagrange multiplier, sufficient conditions-the Bordered Hessian. Elasticities. Economic example-Equilibrium of a firm and consumer. Interrelationships among total, marginal and average costs and revenues.

**Integral Calculus:** Rules of Integration Methods of Integration, Integration by parts and Deifnite integrals – area under curves. Economics examples – measures of consumer surplus, present discounted values calculation and elements of investment analysis.

**Difference and Differential Equations:** Nature, Solution of First Order Equationshomogeneous and non-homogeneous. Economic examples-Cobweb and other simple Dynamic Models.

## Unit 3: Linear Algebra & Input-Output System

#### No of Classes25

Various types of Matrices and Matrix operations. Determinants. Inverse of a Matrix. Rank of

Matrix, Cramer's Rule. Solution of Simultaneous Equations (upto 3 variables), Basic concepts of Linear Programming problem (LPP) – Solutions – Graphical Method, Duality. Input-Ouput Analysis. (Static open models only)

## **References :**

- 1. Alpha C. Chiang : Fundamental Methods of Mathematical Economics (3rd edition) McGraw-Hill (1984).
- 2. Knut Sydsaeter and Peter J. Hammond:Mathematics for Economic Analysis (Person Education) (2003).
- 3. Carl Simon and Lawrence Blume: Mathematics for Economics, Norton (1994).
- 4. H. Scott Bierman and Luis Fernandez: Game Theory. With Economic Applications (2<sup>nd</sup> edition)Persona Education (2003).
- 5. R.G.D. Allen: Mathematical Analysis for Economists, Mc. Millan, London (1980).
- 6. G. Archibald and R. Lipsey: An Introduction to Mathematical Treatment of Economics. AITBS (1987).

## **Additional References** :

- 1. A. Henderson and R. Quandt Microeconomic Theory, McGraw Hill, International Edition.
- 2. H. Gravelle & R. Rees-Microeconomics (2<sup>nd</sup> edition), Pearson Education, Low Price Edition (2004).
- 3. Hal R. Varian Itermediate Microeconomics : A Modern Approach, fourth edition, (EWP), W.w. Norton.
- 4. W.H. Branson Macro-economic Theory and Poligy. AITBS.
- 5. Taro Yamane: Mathematics for Economists, Prentice Hall of India, New Delhi (1975).
- 6. B.C. Mehta and G.|M.K. Madnani: Mathematics for Economics, Sultan chand and Sons, N. Delhi (1992).
- Badal Mukherji and V. |Pandit Mathematical Methods for Economic Analysis, Allied Publishers, Second edition (1989).
- 8. Jaydeb Sarkhel and Anindya Bhukta: An Introduction to Mathematical Techniques for Economic Analysis, Book Syndicate, Kolkata.

## PART –II

## Paper III: Economic Theory II (100 Marks)

## Group A: Microeconomics (50 marks)

## **Unit 1: Perfect Competition**

- (a) Assumptions -price taking behaviour-firm and industry
- (b) Equilibrium of an individual firm-short run and long run
- (c) Long run Industry supply curves-constant, increasing and decreasing cost industry
- (d) Efficiency of competitive markets-consumer and producer surplus effects of tax and subsidy, price control

## **Unit 2: Monopoly**

- (a) Average and marginal revenue-Output decision
- (b) Effect of tax on monopoly output and price
- (c) Multiplant monopolist
- (d) Price discrimination-First and Second degree-bundling and two part tariff-Third degree
- (e) Natural Monopoly-Mark-up and Peak load pricing
- (f) Deadweight loss
- (g)

## **Unit 3: Monopolistic Competition**

- (a) Product differentiation -Concept of Industry and group-demand curve
- (b) Equilibrium of the firm –short run and long run-excess capacity
- (c) Competition and economic efficiency

## **Unit 4: Oligopoly**

- (a) Introduction to two person Zero-sum Games -Strategic Interdependence and Conjectural Variation-Nash Equilibrium
- (b) Alternative Models of oligopolistic behaviour-Cournot, Bertrand, Stackelberg and Sweezy
- (c) Price leadership and Cartels
- (d) Collusion versus Competition-Prisoner's Dilemma

## **Unit 5: Market of Inputs**

- (a) Competitive Factors markets –Demand for Inputs-single and multiple-market demand curve
- (b) Supply curve of inputs-Market supply curve

## **Total No. of Classes 148**

## No. of Classes 78

No. of Classes 10

## No. of Classes 15

No. of Classes 15

No. of Classes 8

- (c) Equilibrium in competitive factor markets
- (d) Marginal productivity theory of distribution-adding up result
- (e) Economic rent
- (f) Factor markets with monopoly power
- (g) Monopsony and bilateral monopoly

## Unit 6: General Equilibrium and Welfare Economics

No. of classes 20

- (a) Social Planner and Pareto Optimality
- (b) 2x2 pure exchange economy –Edgeworth Box –Contract Curve
- (c) Existence of Equilibrium-Offer curve
- (d) Walras'law
- (e) General Equilibrium with production-Production possibility frontier-Efficiency conditions
- (f) Externalities in consumption and production-pollution and10 public good -market failure

## **References:**

- 1. Robert S. Pindyck, Daniel L. Rubinfeld Microeconomics 8<sup>th</sup> Edition, Pearson Education
- 2. H.R. Varian Intermediate Microeconomics
- 3. Gravelle and Rees: Microeconomics, Pearson

## Additional References:

1.David Besanko and Ronald R. Braeutigam. Microeconomics: An Integrated Approach, John Wiley & Sons, Inc., New York, USA,

## **Group – B: Macroeconomics (50 Marks)**

No. of Classes - 70

## Unit 1: Behavioural Foundations of Aggregate Models: Consumption Function

No. of Classes - 14

- (a) Consumption Function
- (b)Keynesian Absolute Income Hypothesis
- (c) Linear Form of Keynesian Consumption Function Stability of Marginal Propensity to Consume
- (d)Short and Long run Consumption Function Estimates
- (e)Relative Income Hypothesis
- (f) Permanent Income Hypothesis
- (g)Life Cycle Hypothesis
- (h)Empirical Evidence

## **References:**

- 1. Mankiw, G. Macroeconomics
- 2. R. Dornbush and Fischer, S. Macroeconomic Theory
- 3. Froyen, R.T Macroeconomic Theory
- 4. Branson, W.H, Macroeconomic Theory and Policy

## Unit 2: Behaviourial Foundations of Aggregate Models: Investment Function

## No. of classes - 10

- (a) Some Basic Concepts Capital and Investment, Gross and Net Investment, Autonomous and Induced Investment
- (b) The Investment Decision
- (c) The Net Present Value (NPV) Method
- (d) Neo-Classical Theory of Investment
- (e) Keynesian Theory Marginal Efficiency of Capital Difficulties with the concept of Marginal Efficiency of Capital

## **References:**

- 1. Mankiw, Macroeconomics
- 2. Dornbush and Fisher, Macroeconomic Theory
- 3. Froyen, Macroeconomic Theory
- 4. Branson, Macroeconomic Theory and Policy

## Unit 3: Behaviourial Foundations of Aggregate Models: Money Demand Function

## No. of classes - 10

- (a) Definition of Money
- (b) Function of Money
- (c) Demand for Money
- (d) Components of Demand for Money Keynesian Theory of Transaction, Precautionary and Speculative Demand for Money
- (e) Baumol Tobin Approach to the Transaction Demand for Money
- (f) Tobin's Theory of Demand for Money as an Asset

#### **References:**

- 1. Mankiw, Macroeconomics
- 2. Dornbush and Fisher, Macroeconomic Theory
- 3. Froyen, Macroeconomic Theory
- 4. Branson, Macroeconomic Theory and Policy
- 5. Laidler, D, Demand for Money

## Unit 4: Money, Banking and Finance

- (a) Supply of Money
- (b) High-Powered Money Money Multiplier
- (c) Commercial Banking Principles
- (d) Central Bank and Technique of Monetary Control
- (e) Money Market
- (f) Reserve bank and Money Supply

## **References:**

- 1. Mankiw, Macroeconomics
- 2. Dornbush and Fisher, Macroeconomic Theory
- 3. S.B.Gupta, Monetary Economics: Institution, Theory and Policy

## **Unit 5: Inflation and Unemployment**

- (a) Inflation- Measures, Types and Effects
- (b) Keynesian Theory of Inflation
- (c) Concept f Inflationary Gap
- (d) Unemployment and Inflation- Stagflation
- (e) Demand Pull and Cost Push Inflation Interaction between Demand Pull and Cost Push Inflation
- (f) Measures of Controlling Inflation
- (g) Unemployment Natural Rate of Unemployment
- (h) Philips Curve and NAIRU
- (i) Short and Long Run Philips Curve

## **References:**

- 1. Mankiw, Macroeconomics
- 2. Dornbush and Fisher, Macroeconomic Theory

## Unit 6: Growth of Output and Cyclical Fluctuation

- (a) Trend of Output growth Sources of Growth in Real Income
- (b) Growth Theories Harrod- Domar Model
- (c) Accelerator Theory of Investment
- (d) Samuelson's Multiplier Accelerator Model

## No. of classes - 10

No. of classes - 13

No. of classes - 13

- 1. Mueller, M.G, Readings in Macroeconomics
- 2. A.C. Chiang, Fundamental Methods of Mathematical Economics

## Paper IV: Advanced Statistical Methods and Economics of Finance (100Marks)

	Total No. of Classes 150
Group A: Advanced Statistical Methods (50 Marks)	No. of Classes 78
Unit 1: Mathematics for Statistics	No. of Classes 8
<ul><li>(a) Concepts of Sets-Union, Intersection, Subsets, Complem</li><li>(b) Permutation and Combination-Binomial Theorem</li></ul>	nents, De-Morgans Law
(c) Exponential and Logarithms	
Unit 2: Probability and Probability Distributions	No. of Classes 18
(a) Random Experiments-Sample space and events	
(b) Addition and multiplication theorems	
(c) Conditional probability and Independence of Events	
(d) Bayes' Theorem	
(e) Random Variables(discrete and continuous	
(f) Mathematical Expectation-mean and variance of a rando	om variable
(g) Probability mass function and density function	
(h) Probability distribution-joint, Marginal and Conditional	
(i) Binomial, Poisson and Normal (Characteristics and App	lication)
(j) Definition and uses of Standard Normal, t, chi-Square ar	nd F-distributions-Distribution
tables	
Unit 3: Theory of Sampling	No. of Classes 7
(a) Sampling versus complete enumeration	
(b) Methods of Sampling-Random and Purposive	
(c) Simple Random Sampling (SRS)-SRSWR and SRSWC Sample	OR, Concept of Stratified Random
(d) Practical Methods of drawing a random sample	

## **Unit 4: Statistical Inference**

- (a) Estimation : Sampling distribution of a statistic, sampling error and standard errordesirable properties-unbiasedness, minimum variance, efficiency and consistency
- (b) Methods of Estimation: OLS and Maximum Likelihood-Point and Interval Estimation
- (c) Testing of Hypothesis: Null and Alternative Hypothesis-Type I and Type II Errors
- (d) Level of significance and power of the test : One tail and Two Tail Test-Confidence Interval for a single mean and variance under normality-Chi-Square test for goodness of fit

## **Unit 5: Introduction to Econometrics**

- (a) Definition, Scope and Goal of Econometrics-Association to Causality
- (b) Simple linear regression model and its assumption-stochastic disturbance term
- (c) Ordinary Least Squares and Normal equations-standard error of regression coefficients
- (d) Coefficient of Determination
- (e) Simple tests of hypothesis on regression coefficients-economic interpretation of regression results.

## **Unit 6: Vital Statistics**

- (a) Concept of Vital Events-fertility, mortality and morbidity. Data Source
- (b) Rate of vital event-measurement of mortality (Crude Death Rate (CDR), Specific Death Rate (SDR), Standardized Death Rate (STDR), Infant Mortality Rate(IMR)-Neo-natal and Post-natal
- (c) Life Table-description, construction and uses
- (d) Measurement of fertility-Crude Birth Rate (CBR), General Fertility Rate (GFR), Age Specific Fertility Rate (ASFR), Total fertility rate (TFR).
- (e) Measurement of population growth-Crude rate of natural increase, Vital index, Gross reproduction rate (GRR), Net Reproduction rate (NRR).

## **References:**

- 1. Hogg and Craig-Introduction to Mathematical Statistics
- 2. Introduction to the theory of statistics / Alexander M. Mood, Franklin A. Graybill, Duane C. Boes
- 3. Goon A.M., M.K. Gupta and B. Dasgupta-*Fundamentals of Statistics*, Vol I & II, The World Press Ltd., Calcutta
- 4. Gupta, S.C. and V.K. Kapoor- Fundamental of Applied Statistics, S. Chand & Sons, New Delhi
- 5. Gujarati, D.- Basic Econometrics, Mc Graw Hill (Latest Edition)
- 6. G.S. Maddala and Kajal Lahiri- Introduction to Econometrics-4<sup>th</sup> edition-Wiley

## No. of Classes 10

## **Group B: Economics of Finance (50 Marks)**

#### **Unit 1: Introduction to Corporate Finance**

- (a) Corporate Finance the Balance Sheet Model of the Firm
- (b) Capital Structure
- (c) Various forms of business organizations sole proprietorship, partnership and corporate and their advantages and disadvantages
- (d) Corporate Firms Separation of Ownership from Management and Agency Cost

## **Unit 2: Financial Statements**

- (a) Balance sheet Accounting Liquidity, Debt versus equity, Value versus cost
- (b) The Income Statement Non-cash items, Time and costs
- (c) Net Working Capital
- (d) Financial Cash Flow The Accounting Statement of Cash Flows Cash Flow from Operative Activities, Cash flow from Investing Activities, Cash Flow from Financing Activities
- (e) Ratio Analysis of Financial Statements Short-Term Solvency (Current Ratio, Quick Ratio), Activity (Total Asset Turnover, Receivables Turnover, Inventory Turnover), Financial Leverage (Debt Ratio, Interest Coverage), Profitability (Profit Margin, Return on Assets, Return on Equity, Payout Ratio) and Market Value Ratios (Market Price, Price-to-Earnings Ratio, Dividend Yield and Market-to-Book (M/B) Value and Q Ratio)

## **Unit 3: Financial Markets and Instruments**

- (a) Different financial markets and instruments (basic concepts only) Money Market and Capital Market
- (b) Commercial Bills, Treasury Bills, Call Money Market
- (c) Bond and Shares (Primary Market and Secondary Market) Common Stocks and Preferential Shares

## **Unit 4: Time Value of Money**

- (a) Meaning of Time Value of Money
- (b) Future Value of A Single Amount
- (c) Future Value of an Annuity
- (d) Present Value of A Single Amount
- (e) Present Value of An Annuity

## inance (50 Marks)

No. of Classes 20

#### No. of Classes 8

#### No. of Classes 8

No. of Classes 10

(f) Present Value of A Perpetuity

(Shorter Compounding and Discounting Period i.e. less than a year should be taught while teaching Future Value of A Single Amount and Present Value of A Single Amount)

## Unit 5: Risk and Return

## No. of Classes 12

- (a) Risk and Return of A Single Asset Expected Return and Standard Deviation of Return
- (b) Risk and Return of A Portfolio
- (c) Portfolio Diversification Market Risk versus Unique Risk
- (d) Relationship between Risk and Return

## **Unit 6: Valuation of Securities**

## No. of Classes 12

- (a) Basic Valuation Model
- (b) Bond Valuation Yield-to-Maturity
- (c) Equity Valuation Single Period Valuation,, Expected Rate of Return, Valuation with Constant Dividends, Valuation with Constant Growth in Dividends, Earnings Capitalisation Approach, Book Value Approach and Liquidation Value Approach

## **References:**

1. Gupta, Suraj B., Monetary Economics – Institutions, Theory And Policy, S. Chand & Co. Ltd. – Chapter 3

2.Chandra, Prasanna, Fundamentals of Financial Management, Tata McGraw-Hill Publishing Company Limited, New Delhi – Chapter 2, 3, 4 and 5.

3. Ross, Stephen A., Randolph W. Westerfield and Jeffrey Jaffe, Corporate Finance, Tata McGraw-Hill Publishing Company Limited – Chapters 1 and 2.

## PART –III

## Paper V: International Economics (100 Marks)

## **Unit 1: International Trade Theory**

(a) Basis for International Trade: Arbitrage; Absolute and Comparative Advantage; different sources of Comparative Advantage

Total No. of Classes 120

- (b) Gains from Trade theorem- GFT in terms of production possibility curve and community indifference curve; GFT in commodity endowment model and in factor endowment model
- (c) International Equilibrium- Offer curves- Derivation and related elasticity; Equilibrium terms of trade and stability
- (d) Ricardian Model of Trade- Production possibility frontier, relative demand and relative supply, and autarkic terms of trade; Technology as the basis for trade, the international terms of trade, complete specialization, gains from trade (Using numerical examples to illustrate); Extensions of the model -- many countries extension, many commodities extension.
- (e) Factor endowment, Trade and Income Distribution- Two factor economy, factor abundance, and factor intensity reversal; Heckscher-Ohlin theorem; Rybczynski Theorem; Stolper-Samuelson Theorem; Factor Price Equalization Theorem and sources of its disruption (non-traded goods, factor immobility, factor intensity reversal, complete specialization); Leontief Paradox.

(Proofs of the theorems should follow Krugman and Obstfeld, International Economics: Theory and Policy, Pearson Education)

## **References:**

- 1. Krugman and Obstfeld: International Economics (8<sup>th</sup> Ed) Pearson Education
- 2. Caves, Frankel and Jones: World Trade and Payments (9<sup>th</sup> Ed) Pearson Education
- 3. Salvatore: International Economics (8<sup>th</sup> Ed)Wiley India
- 4. Soderstein and Reed: International Economics

## **Unit 2: Commercial Policy**

## No. of Classes 20

- (a) Need for policy intervention: Infant Industry argument, Improving Welfare through protection
- (b) Instruments of Trade Policy: Tariff, Quota, Subsidies, Voluntary Export Restraint
- (c) Partial Equilibrium Analysis: Cost and benefit analysis of tariff, Effective Rate of Protection and Intermediate goods; Quota, equivalence and non equivalence of tariff and quota
- (d) General Equilibrium Analysis: Distinction between small and large open economy; Terms of Trade Effect of tariff, Lerner's Symmetry; Welfare effects of tariff in a small open economy; Optimum Tariff for large open economy; Metzler's paradox

## **References:**

- 1. Krugman and Obstfeld: International Economics (8<sup>th</sup> Ed) Pearson Education
- 2. Caves, Frankel and Jones: World Trade and Payments (9<sup>th</sup> Ed) Pearson Education
- 3. Salvatore: International Economics (8<sup>th</sup> Ed)Wiley India
- 4. Soderstein and Reed: International Economics

## **Unit 3: International Monetary Economics**

- (a) Balance of payments and national income: National Income Accounting in an Open Economy; balance of payments accounts
- (b) Determination of national Income in an open Economy: Foreign Trade Multiplier with and without Repercussion Effects in a two country framework
- (c) Foreign Exchange market: Spot market, Forward market; Bid rate, Ask rate; Fixed and flexible exchange rates; Demand and Supply of Foreign Exchange; currency convertibility elementary idea
- (d) Exchange rate Determination and Trade Balance: Devaluation in the fixed exchange rate regime; Income effect of Devaluation; Elasticity and Absorption Approaches of Devaluation ; Marshall- Lerner condition; J- curve phenomenon
- (e) Mundell-Fleming model

## **References:**

- 1. Batiz and Batiz: International Finance and Open Economy Macroeconomics
- 2. Krugman and Obstfeld: International Economics (8<sup>th</sup> Ed) Pearson Education
- 3. Caves, Frankel and Jones: World Trade and Payments (9<sup>th</sup> Ed) Pearson Education
- 4. Soderstein and Reed: International Economics
- 5. Rudiger Dornbusch. Open Economy Macroeconomics
- 6. Salvatore: International Economics (8<sup>th</sup> Ed)Wiley India

## **Unit 4: International Monetary System and Institutions**

- (a) Evolution of international monetary system Gold Standard, Gold Exchange Standard, Bretton Woods System, Current Flexible Rate Regime
- (b) International Financial Institutions IMF and World Bank Objectives and Functions
- (c) International Trade Institution World Trade Organization (WTO) Objectives and Functions

References:

- 1. Sodersten & Reed-International Economics
- 2. Kenen- The International Economy
- 3. Salvatore International Economics

## Paper VI- Development Economics (100 Marks)

#### **Unit-1: Some Basic Concepts**

- (a) Meaning of Development-Distinction between growth and development-alternative concepts of economic development: capability based approach and income based approach
- (b) International comparison of per capita incomes, purchasing power parity theory
- (c) Characteristics of a developing economy

## No. of Classes 40



## No. of Classes 20

# Total No. of Classes-124

- 1. G.M Meier and Rausch, J.E- Leading Issues in Economic Development, Ch-1,
- 2. M.P Todaro and Smith S.C- Economic Development, Ch-1,2
- 3. A.P Thirlwall, Economics of Development, Ch-2, 3

## **Unit-2: Stages of Development and Structural Change**

- (a) Sector thesis of Fisher and Clark
- (b) Stages of Growth: Rostow and Marx

## **References:**

- 1. M.P Todaro and Smith S.C- Economic Development, Ch-3
- 2. A.P Thirlwall, Economics of Development Ch-3
- 3. Suman K. Mukherjee- Textbook of Economic Development, Ch-10

## **Unit-3: Population and Economic Development**

- (a) Theory of Demographic transition
- (b) Malthusian population trap
- (c) Concept of optimum population
- (d) The low level equilibrium trap models of Nelson and Leibenstein and their criticisms **References:**
- 1. M.P Todaro and Smith S.C- Economic Development, Ch-6
- 2. A.P Thirlwall, Economics of Development Ch-9
- 3. Suman K. Mukherjee- Textbook of Economic Development, Ch-6

## **Unit-4: Development Strategies**

- (a) Poverty trap theory of Nurkse
- (b) Big-push theory of Rosenstein Rodan
- (c) Linkages: backward and forward
- (d) Theories of Balanced and Unbalanced Growth

## **References:**

- 1. R. Nurkse- Problems of Capital Formation in Underdeveloped Countries
- 2. A.P Thirlwall, Economics of Development Ch-9, 10,
- 3. Suman K. Mukherjee- Textbook of Economic Development, Ch-9

## Unit-5: Role of Capital and Labour in Economic Development

- (a) Role of Capital in Economic Development, significance of capital output ratio, role of technology and technological progress
- (b) Concept of Economic Dualism
- (c) Lewis Model of Economic Development
- (d) Disguised Unemployment : concept and measurement
- (e) Sen's Model of Choice of Technique
- (f) Harris-Todaro Model of Rural-Urban Migration

## **References:**

No of Classes 22

No of Classes 10

## No of classes 14

- 1. A.P Thirlwall, Economics of Development, Ch-6,7,8,
- 2. M.P Todaro and Smith S.C- Economic Development, Ch-4, 7, 8

## **Unit-6: Social Sector and Development**

- (a) Why income alone cannot be a measure of economic performance
- (b) Human Development Index: concept and measure
- (c) Education, Health, Nutrition and Productivity- a brief overview

## **References:**

- 1. A.P Thirlwall, Economics of Development, Ch-2,7
- 2. M.P Todaro and Smith S.C- Economic Development, Ch-2
- 3. M. Meier and Rausch, J.E- Leading Issues in Economic Development, Ch-5

## **Unit-7: Gender and Development**

- (a) Women in the labour force
- (b) Women's education in developing countries
- (c) Problem of the missing women
- (d) Women's empowerment: a brief overview of microfinance and self-help groups

#### **References:**

- 1. M.P Todaro and Smith S.C- Economic Development, Ch-8
- 2. A.P Thirlwall, Economics of Development, Ch-7,
- 3. M. Meier and Rausch, J.E- Leading Issues in Economic Development, Ch-5

## **Unit-8: Environment and Development**

- (a) Environment and Economy Interface
- (b) Sustainable Development
- (c) Concept of green GDP
- (d)Population, Poverty and Environment

#### **References:**

- 1. M.P Todaro and Smith S.C- Economic Development, Ch-10
- 2. A.P Thirlwall, Economics of Development, Ch-12

#### **Unit-9: Trade and Development**

- (a) Gains from Trade: static and dynamic, vent for surplus
- (b) Tariffs versus Subsidies
- (c) Prebisch-Singer doctrine

## No of Classes 12

## No of Classes 10

No of classes 8

- 1. M.P Todaro and Smith S.C- Economic Development, Ch-12
- 2. A.P Thirlwall, Economics of Development, Ch-15

## **Unit-10: Development Experiences and Current Scenario**

(a) Nature of development gap prevailing at present among developed and developing countries: comparison of GDP per capita and HDI

No. of Classes 10

(b) Development experience and current development scenario of BRICS countries

## **References:**

- 1. M.P Todaro and Smith S.C- Economic Development, Ch-2, 4
- 2. A.P Thirlwall, Economics of Development, Ch-2, 6
- 3. G.M Meier and Rausch, J.E- Leading Issues in Economic Development, Ch-1
- 4. The BRICS Report, OUP, Ch-1,
- 5. brics.ibge.gov.br
- 6. BRICS Joint Publication available at <u>www.gks.ru</u>
- 7. UNDP and World Bank Data Bases

## Additional References:

- 1. Debraj Ray- Development Economics
- 2. Kaushik Basu- Analytical Development Economics
- 3. Yujiro Hayami- Development Economics

## Paper VII: Indian Economic Problems (100Marks) Total No. of Classes 118

## Unit I: Historical Background of the Present Indian Economy No. of Classes 12

- (a) De industrialization
- (b) Commercialization of agriculture
- (c)Theory of Economic Drain and its Impact on Indian economic Development
- (d)Land Tenure system and Impact on Indian Agriculture
- (e) Features of the Indian Economy around 1947-1950

## **References :**

- 1. Dhires Bhattacharya: A Concise Economic History of India
- 2. Bipan Chandra in Bimal Jalan (ed): Indian Economy: Problems and Prospects
- 3. Uma Kapila: Indian Economy, Ch 1

- Unit II: Planning
  - (a) Background and structure of planning
  - (b) Structural constraints and Indian development strategy: Importance of Industrialisation, Debates between Public sector vs Private sector, Consumer goods vs Capital goods, Import substitution vs Export Promotion
  - (c) India's economic crisis in 1990, its causes and the adoption of New Economic Policy, 1991

- 1. Uma Kapila: Indian Economy, Ch 1, 2, 3, 5.
- 2. S. Chakraborty: The Indian Development Experience, Ch 1, 2
- 3. Bardhan in Bimal Jalan (ed): Indian Economy: Problems and Prospects

## Unit III: Land and Agriculture

No. of Classes 12

- (a)Tenancy systems and land reforms
- (b) Green revolution-features and impact on the Indian economy
- (c) Minimum Agricultural Prices
- (d) Food security and Public Distribution System

## **References:**

- 1. Uma Kapila: Indian Economy, Ch 11, 12
- 2. Charan Wadhwa (ed): Some Problems of India's Economic Policy
- 3. S. Chakraborty: The Indian Development Experience, Ch 3
- 4. Vaidyanathan in Kaushik Basu (ed): Agrarian Question
- 5. Economic Survey of India

## **Unit IV: Indian Industry**

- (a) Trends and patterns of industrial growth
- (b) Industrial Policies- Industrial Licensing System
- (c) Structural Changes in the Indian Industrial Economy and Foreign Direct Investment in Industries

## **References:**

- 1. Rakesh Mohan in Bimal Jalan (ed): Indian Economy: Problems and Prospects
- 2. Uma Kapila: Indian Economy, Ch 18
- 3. Dilip Mukherjee: Indian Industry, Introduction

- **Unit V: International Trade and Balance of Payments** 
  - (a) Balance of Payments- An overview
  - (b)Trade Liberalization- Import Substitution to Import Liberalization, Export Pessimism to Export Promotion
  - (c) Foreign Investment Inflows since 1991 FII and FDI
  - (d) Exchange Rate policy, currency convertibility on current account and capital account

- 1. Uma Kapila: Indian Economy
- 2. Report of the Tarapore Committee, 2006
- 3. Economic Survey of India, Statistical Appendix, Table on BoP
- 4. Singh, K: Foreign Direct Investment in India: A Critical Analysis of FDI from 1991-2005, Centre for Civil Society, New Delhi, 2005

## Unit VI: National Income, Savings and Capital Formation

- (a) Trend, Growth and Sectoral Composition of National Income
- (b) Trend of Saving and Pattern of Capital Formation

## **Reference:**

1. Economic Survey of India, Overview of the Economy

## Unit VII: Poverty and Inequality in India

- (a) Measures of Poverty and Inequality
- (b) Factors influencing Poverty
- (c) Poverty Alleviation Measures since 1991

## **Reference:**

1. Uma Kapila: Indian Economy

## Unit VIII: Employment, Wages and Inflation

- (a) Trend and Pattern of employment and wages in India, problems of unemployment and underemployment
- (b) Government policies on employment and wages after 1991 employment guarantee scheme minimum wage
- (c) Movement of prices in India after 1991--trends and patterns

## **References:**

- 1. Bimal Jalan (ed.) The Indian Economy: Problems and Prospects
- 2. J. Sachs, A Varshney and N Bajpai (ed). India in the Era of Economic Reforms

## No. of Classes 12

No. of Classes 12

No. of Classes 10

## No. of Classes 12

s and Capital Formation

## Unit IX: Money, Banking and Finance in India

- (a) Structure of Financial System in India
- (b) Financial Sector Reforms-- including Banking Reforms
- (c) Review of Monetary Policy of RBI
- (d) Specialised Financial Institutions

## **References:**

- 1. J. Sachs, A Varshney and N Bajpai (ed). India in the Era of Economic Reforms
- 2. Rangarajan. India: Monetary Policy, Fiscal Stability and Other Essays

## **Unit X: Public Finance in India**

## No. of Classes 12

- (a) Central Government Budget Heads of Receipts and Expenditures of Central Government- Definitions of Revenue Deficit, Fiscal Deficit and Primary Deficit
- (b) Indian Fiscal sector reforms direct and indirect taxes, subsidies, debt management salient features of FRBM Act
- (c) Central and State Government Finances Role of Finance Commission

## **References:**

- 1. Uma Kapila: Indian Economy
- 2. Mishra and Puri, Indian Economics
- 3. Agarwal, Indian Economics
- 4. Dutta and Sundaram, Indian Economics.
- 5. Economic Survey, Government of India, latest edition

## **Additional References**:

- 1. Economic Survey of India, Statistical Appendix, table showing Receipts and Expenditures of central Government
- 2. J. Sachs, A Varshney and N Bajpai (ed). India in the Era of Economic Reforms

## Paper-VIII: Public Finance and Computer Applications in Economics (100 marks)

## **Total No. of Classes 120**

Group A: Public Finance (50 Marks)

**Unit 1:Nature and Scope of Public Finance** 

No. of Classes 70 No. of Classes 5

- (a) Meaning and scope of Public Finance Positive and Normative Approach
- (b) Private Goods, Public Goods (Pure and Impure Public Goods) and Merit Goods
- (c) Economic Role of Government Allocation, Distribution and Stabilization

## **Unit 2:Market Failure and Externality**

- (a) Externality, Market Failure and Role of the Government
- (b) Optimum Provision of Public Goods Lindahl-Johansen Approach

## **Unit 3: Theories of Taxation**

- (a) Sources of Public Revenue
- (b) Taxation meaning and classification of taxes
- (c) Principles of taxation Benefit Approach, Lindahl's voluntary exchange principle
- (d) Ability to pay approach Subjective index of ability-sacrifice principle

## **Unit 4:Effects of Different Taxes**

- (a) Incidence of taxation (partial equilibrium analysis) its determinants
- (b) Effects of unit and ad valorem taxes on output and prices under perfect competition and monopoly
- (c) Effects of taxes on savings, investment and work-effort

## **Unit 5: Public Expenditure**

- (a) Meaning of public expenditure
- (b) Classification and principle of public expenditure Wagner's Law and Peacock-Wiseman Hypothesis

## **Unit 6: Government Budget**

(a)Public Budget – Economic and Functional Classification of Budget – specifications of different revenue and expenditures of the Government

(b)Different concepts of deficits – fiscal deficit, revenue deficit, primary deficit, effective revenue deficit

## **Unit 7: Public Debt**

(a) Sources of public borrowings

(b) Effects of public debt

## **References:**

- 1. Musgrave, R.A. and P.B. Musgrave, Public Finance in Theory and Practice, McGraw Hill, Kogakusha, Tokyo
- 2. Mithani, D. M., Modern Public Finace, Himalaya Publishing House, Mumbai

# No. of Classes 5

No. of Classes 15

# No. of Classes 5

No. of Classes 10

# No. of Classes 10

<ul><li>4. Ghosh, Ambar and Chandana Ghosh, Public Finance, Prentice Hall India</li><li>5. Economic Survey, Government of India</li></ul>	
Group B: Computer Applications in Economics (50Marks)	No. of Classes 50
Unit 1: Basics of Excel	No. of Classes 10
<ul><li>(a) Spreadsheet, Open, Data Entry, cell, column and row formatting</li><li>(b) Sort, Filter and Auto Sum</li></ul>	
Unit 2: Data Management	No. of Classes 10
(a) Using formula for obtaining descriptive statistics-mean, median, sta correlation	andard deviation,
(b) Excel Chart builder-bar graph, histogram, line diagram, scatter plot	and pie chart
(c) Regression and hypothesis testing using excel data analysis	
Unit 3: Introduction to Project Presentation	No. of Classes 10
<ul><li>(a) Preparing Word documents-tables, diagrams and equation editor</li><li>(b) Powerpoint presentation-slide preparation-charts and tables</li></ul>	

3. Due, J.F., Government Finance, Irwin, Homewood

## Unit 4: Project Work:

The students shall work in groups [to be decided by the institution] using primary/secondary data base to analyse issues related to economics. A hard copy of the report as well as the presentation of the key findings in PowerPoint would be evaluated. The project report should contain an appropriate title, objective and scope, hypotheses, methodology, data source and results obtained and policy implications.

No. of Classes 20

## NB.

- 1. The full marks for Units 1 and 2 should be 25. The evaluation for Units 1 and 2 should be based on practical examination only. The presence of an external examiner should be mandatory for this examination.
- 2. The full marks for Units 3 and 4 should be 25. Evaluation of these units should be only on the basis of project presentation where the presence of an external examiner should be mandatory.