Syllabus for B.Sc. (Honours) Economics under Kazi Nazrul University Session 2018-19 (Under CBCS)

Semester-1 (C-1) 1.1 Microeconomic Theory – I

Full Marks: 50

1. General Concept

- Distinction between Microeconomics and Macroeconomics concept of different Microeconomic units – commodity, consumer, firm, industry, market – concepts of equilibrium, - statics, dynamics, comparative statics and stability of equilibrium.
- 2. Theory of Demand
 - The Marshallian Approach: measurement of utility derivation of demand curve consumer's surplus.
 - Indifference curve approach: indifference curve and its properties, the consumer pathological cases price consumption curve and income consumption curve, price effect, income effect and substitution effect, derivation of demand curve Giffen Paradox market demand.
 - The Revealed Preferences approach derivation of demand functions from Revealed Preferences approach.
 - Elasticities of demand price, income and cross elasticities relation between price elasticity of demand, price and marginal revenue relation between price elasticity and total expenditure.
- 3. Theory of Production and Cost
 - Production function: the neo-classical production function relation between total, average and marginal productivities – law of variable proportions – the fixed coefficient production function.
 - Iso-Profit curve and Iso-cost line: definition of Iso- Profit curve, economic region of
 production, marginal rate of technical substitution, equilibrium of the producer constrained
 output maximization and constrained cost minimization, output and substitution effects –
 elasticity of substitution expansion path, returns to scale homogeneous and homothetic
 production function, the Cobb Douglas and CES production function.
 - Cost function: different concepts of costs, short run cost analysis and long run cost analysis

 relation between the expansion path and cost function total, average and marginal cost curves long run cost curves as envelope of short run cost curves.

4. Perfect Competition

- Perfect competition and pure competition—Short run and long run equilibrium of a competitive firm Short run and long run supply curves—Long run equilibrium of the competitive industry price determination in a competitive industry existence, uniqueness and static stability of equilibrium –long run supply curves of the industry- effects of external economies and diseconomies effect of change in cost effect of imposition of tax effect of price control.
- 5. Imperfect Competition
 - Theory of monopoly: Characteristics- AR and MR curves under monopoly Relation among AR, MR and Elasticity of demand – Equilibrium under monopoly – major features of monopoly- index of monopoly power – price discrimination – when possible? – when desirable? – Degree of price discrimination – equilibrium under price discrimination – Is price discrimination desirable? – Equilibrium under Multiple Plant monopoly – Monopsony - Equilibrium under bilateral monopoly

References:

- Robert S. Pindyck, Daniel L. Rubinfeld, PremL.Mehta: Microeconomics, 7th Edn. Pearson.
- 2. Samuelson and Nordhaus : Economics
- 3. Koutsoyiannis: Microeconomic Theory
- 4. Ferguson and Gould: Microeconomic Theory
- 5. H. Varian: Intermediate microeconomics
- 6. Henderson and Quandt: Microeconomic Theory

(C-2)

1.2 Macroeconomic Theory-I

- 1. Introduction
 - Scope and nature of Macro Economics with emphasis on macroeconomic problems and policies Targets & Instruments of macroeconomic policy etc.
- 2. The National Income and Products Accounts
 - Definition, Concepts and Measurement of GNP, NNP, GDP, NDP, NI, DI The flow of product method and the flow of expenditure method; Concept of GDP deflator and Price Indices.

- Interrelation between measures of National Income in the absence and presence of Governmental sector and International Transactions
- The Accounting Identity of Saving and Investment
- Problems of using National Income as a measure of Economic Welfare.

3. The Classical System

- The Classical view of Macro Economics in respect of the determination of Employment, Output and Prices.
- The classical quantity theory of money and its criticism; The Classical Theory of Rate of Interest Loanable fund theory.
- Say's Law and Walras' law The Dichotomy between the real and monetary sectors Neutrality of money.

4. The Simple Keynesian Model of Income Determination

- Keynesian Consumption Function and its properties Factors affecting Consumption Expenditure Saving Function & its properties
- Determination of National Income nature of equilibrium unemployment, full employment and inflation stability of equilibrium
- Comparative static analysis the Multiplier analysis with and without governmental sector Investment Multiplier, Government Expenditure Multiplier, Balanced Budget Multiplier; Limitations of the multiplier analysis. The Paradox of Thrift.
- 5. The Complete Keynesian Model
 - Commodity market equilibrium (IS) Money market equilibrium (LM) IS-LM equilibrium the Aggregate Demand and Aggregate Supply.
 - Introduction of the Labour Market the interaction between Commodity Market, Money Market and Labour Market – Determination of Equilibrium – Effects of changes in Money Supply and other factors – Comparison with the Classical system – Price Flexibility – Real Balance Effect and Full Employment.

References

- 1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
- 2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
- 3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009.
- 4. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
- 5. Andrew B. Abel and Ben S. Bernanke, Macroeconomics, Pearson Education, Inc., 7th edition, 2011.
- 6. Errol D'Souza, Macroeconomics, Pearson Education, 2009.

Generic Elective (GE-I) (Any One) 1. Microeconomic Theory -I

Full Marks: 50

1. General Concept

- Distinction between Microeconomics and Macroeconomics concept of different Microeconomic units - commodity, consumer, firm, industry, market – concepts of equilibrium.
- 2. Theory of Demand and Indifference Curve Approach
 - The Marshallian Approach: measurement of utility derivation of demand curve.
 - Indifference curve and its properties price consumption curve and income consumption curve, price effect, income effect and substitution effect, derivation of demand curve Giffen paradox– market demand concept of average revenue, marginal revenue.
- 3. Theory of Production
 - Production function relation between total, average and marginal productivities law of variable proportions the fixed coefficient Production function.
 - Iso-Profit curve economic region of production, marginal rate of technical substitution, equilibrium of the producer -constrained output maximization and constrained cost minimization elasticity of substitution expansion path.

4. Theory of Cost

• Different concepts of costs, short run cost analysis and long run cost Analysis – total, average and Marginal cost curves – long run cost curves as envelope of short run cost curves.

References

- Robert S. Pindyck, Daniel L. Rubinfeld, Prem L. Mehta: Microeconomics, 7th Edn. Pearson.
- 2. Samuelson and Nordhaus : Economics
- 3. Koutsoyiannis: Microeconomic Theory
- 4. Ferguson and Gould: Microeconomic Theory
- 5. Haridas Acharya : Adhunik Arthaniti 6. Jaydeb Sarkhel: Arthanaitik Tatta

2. Indian Economics-Post Independence

Full Marks: 50

1. Structural Changes in Indian Economy

• Trends in national income, per capita income - Changes in occupational pattern

- Sectoral distribution of national income during the post independence period
- 2. Agricultural Sector
 - Land reforms
 - Farm size and Productivity
 - Green revolution-causes and impacts.
 - Agricultural marketing, concepts of food security and public distribution system in India.
- 3. Industrial Sector
 - Industrial policy resolution (1948, 1956) licensing policy; New industrial policy, 1991; the EXIT policy; present problems of SSIs and large scale industries in India and its remedies.
- 4. Population
 - Trend of Population Growth in India in recent years-Problems associated with population growth-National population policy Demographic dividend

Reference

- 1. Dutta and Sundharam: Indian Economy
- 2. Mishra and Puri: Indian Economy
- 3. A.N.Agarwal Indian Economy
- 4. Uma Kapila: Indian Economy
- 5. Debesh Mukherjee: Samakalin Bharatiya Arthaniti

Semester-2 (C-3) 2.1 Microeconomic Theory – II

- 1. Imperfect Competition
- Monopolistic competition: Short run and long run equilibrium excess capacity.
- Theory of Oligopoly : Characteristics of oligopoly - non-collusive oligopoly models of Cournot and Stackelberg

 collusive oligopoly – price leadership – market sharing model – price rigidity under oligopoly.
- 2. Theory of Factor Pricing
- Demand for factors of production Determinants of price elasticity of demand for a factor – marginal productivity theory and its limitations

- Theory of wage Choice between work and leisure derivation of individual labour supply curve total labour supply curve demand for labour determination of equilibrium in a competitive labour market- collective bargaining and wage rate.
- Theory of rent Transfer earning and economic rent quasi rent Rent and price
- Theory of Interest- Real and Money Interest- Loanable Fund Theory and Liquidity Preference Theory of Interest
- Theory of profit Gross and net profit- elements of profit- risk and uncertainty theory, Innovation theory of profit.
- 3. General Equilibrium and Economic Welfare
 - Partial and general equilibrium a formal statement of general equilibrium approach
 the concept of Pareto optimum Pareto optimality in consumption Pareto optimality in production General Pareto optimality condition.

- 1. Robert S. Pindyck, Daniel L. Rubinfeld, PremL.Mehta: Microeconomics, 7thEdn. Pearson
- 2. Samuelson and Nordhaus : Economics
- 3. Koutsoyiannis : Microeconomic Theory
- 4. Ferguson and Gould :Microeconomic Theory
- 5. H. Varian : Intermediate microeconomics
- 6. Henderson and Quandt : Microeconomic Theory

(C-4) 2.2 Mathematical Economics - I

Full Marks: 50

Unit 1: Some Basic Mathematical Concepts with Economic Illustrations

- Role of Mathematics in Economics Analysis. Concepts of Variables, Constants and Parameters. The real-number system, A.P. and G.P.
- 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

- Differential Calculus: Concepts of first and second order derivatives, rules of derivatives addition, subtraction, product and division, and derivatives of functions; Concepts of partial derivatives. Applications Elasticities, utility-production-cost-revenue-profit functions. Maxima and Minima: unconstrained optimization, necessary and sufficient conditions for local optima, notions of concavity and convexity of functions, points of inflexion. Constrained optimization total, marginal and average costs and revenues.
- Integral Calculus: Rules of Integration, Methods of Integration, Integration by parts and Definite integrals area under curves. Economic examples measures of consumer surplus, present discounted values calculation and elements of investment analysis.
- Difference and Differential Equations: Nature, Solution of First Order Equations homogeneous and non-homogeneous. Economic examples Cobweb and other simple Dynamic Models.

Suggested Readings:

- 1. Knut Sydsaeter and Peter J. Hammond: Mathematics for Economic Analysis
- 2. Carl Simon and Lawrence Blume: Mathematics for Economics, Norton (edition)
- 3. G. Archibald and R. Lipsey: An Introduction to Mathematical Treatment of Economics. AITBS
- 4. A. Henderson and R. Quandt Microeconomic Theory, McGraw Hill, International Edition.
- 5. Hal R. Varian- Intermediate Microeconomics: A Modern Approach, fourth edition, W. Norton.
- 6. W. H. Branson Macro-economic Theory and Policy. AITBS.
- 7. Taro Yamane: Mathematics for Economists, Prentice Hall of India, New Delhi (1975).
- 8. Badal Mukherji and V. Pandit Mathematical Methods for Economic Analysis, Allied Publishers, Second edition.

GE-2 (Any one)

1. Money and Banking

Full Marks: 50 1. Money

- Definition, Functions, and Different Types of Money (M1, M2 etc.).
- 2. Quantity Theory of Money: Fisher's Version and Cambridge Version.

3. Banking

- Definition and Functions of Commercial Banks, Credit Creation of Commercial Banks.
- Functions of Central Banks, Credit Control Methods of Central Bank.

4. Non-bank Financial Intermediaries in India (NBFIs)

- Definition of NBFIs, Distinction between Commercial Banks and NBFIs
- Different NBFIs working in India LIC, IDBI, IFCI, UTI etc.

References

- S.B. Gupta: Monetary Economics, S.Chand & Co, New Delhi. 1st Reprint Edition, 2009.
- L. M. Bhole: Financial Institutions and Markets, Tata McGraw Hill, 4th Edition, 2004.
- G, Mankiw. 2007. Economics: Principles and Applications. South Western of Cengage Learing.

2. Microeconomic Theory-II

- 4. Imperfect Competition
- Monopoly: Short run and long run equilibrium, Price Discrimination.
- Monopolistic competition: Short run and long run equilibrium excess capacity.
- 5. Oligopoly: Characteristics of oligopoly and duopoly (Collusive and non-collusive: definition only), Cournot Model.
- 6. Theory of Factor Pricing
- Demand for factors of production Determinants of price elasticity of demand for a factor marginal productivity theory and its limitations

- Theory of wage Choice between work and leisure derivation of individual labour supply curve total labour supply curve demand for labour determination of equilibrium in a competitive labour market- collective bargaining and wage rate.
- Theory of rent Transfer earning and economic rent quasi rent Rent and price
- Theory of Interest- Real and Money Interest- Loanable Fund Theory and Liquidity Preference Theory of Interest
- Theory of profit Gross and net profit- elements of profit- risk and uncertainty theory, Innovation theory of profit.

Semester-3 (C-5) 3.1 Statistical Method – I

- 1. Tabular and Diagrammatic Presentation of Data
 - □ Statistical Data classification and presentation methods of collection of data difference between variable and attributes – frequency distribution and its diagrammatic presentation – choice of class interval – diagrammatic representation of frequency distribution – frequency curve – cumulative frequency distribution (more than and less than) Ogive - (simple numerical exercise).
- 2. Measures of Central Tendency
 - □ Arithmetic mean, median and mode (for both grouped and ungrouped data) comparison of mean, median and mode geometric mean and harmonic mean (for both grouped and ungrouped data) composite mean (average from combined data) properties for all these measures-(simple numerical exercise).
- 3. Measures of Dispersion

Absolute measures – Range, mean deviation and Standard deviation and Quartile Deviation – Relative measures – curve of concentration - (simple numerical exercise)

- Measurement of economic inequality: nature of distribution of income and wealth graduating from income distribution Lorenz Curve representation of income distribution Gini Coefficient and Lorenz Curve-(simple numerical exercise)
- Moments and measures of skewness and Kurtosis: moments, skewness and kurtosis definition – relationship between central and non-central moment – Sheppard's correction -(simple numerical exercise).

4. Correlation and Regression Analysis: Bivariate, Multiple and Partial

 Scatter diagram – simple correlation coefficient and its properties, its calculation from grouped and ungrouped data, limitations of correlation coefficient. Simple regression analysis – properties of regression line – relationship between correlation coefficient and regression coefficient. Spearman's rank correlation coefficient (without tie) – Kendall's rank correlation coefficient- (simple numerical exercise).

5. Index Numbers

• Purpose and uses of index number, problems of construction, different formulae for price and quantity index numbers, tests for index numbers, chain index, and cost of living index-(simple numerical exercise)

References:

- 1. Goon, Gupta and Dasgupta Fundamental of Statistics, Vol. I & II
- 2. Goon, Gupta and Dasgupta Basic Statistics
- 3. N. G. Das Statistical Method (Part I & II)
- 4. Yule and Kendall An Introduction to the Theory of Statistics
- 5. Gupta and Kapoor Fundamental of Mathematical Statistics.

(C-6)

3.2 Macroeconomic Theory – II

Full Marks: 50

1. Consumption Function

Empirical findings regarding Consumption Function – Alternative Theories regarding its behaviour – Keynes, Smithies, Duesenberry, Friedman, Ando-Modigliani.

2. Money Market

- Three motives of holding money Transanction, Precautionary and Speculative demand for money
- Keynsian liquidity preference theory indeterminancy of rate of interest in the liquidity preference theory the liquidity trap
- The inventory theoretic approach to transanction demand for money –Baumol and Tobin
- Supply of money credit creation by commercial banks money multiplier interest sensitivity of money supply

3. The Investment Function

- The Flexible Accelerator Principle of Investment its Implications and Limitations, (Multiplier accelerator theory).

4. Theories of Inflation

- The Quantity Theory approach to Inflation
- Demand Pull Inflation and Inflationary Gap analysis; Its shortcomings
- Concepts of Cost Push & Mark Up inflation
- The Philips Curve and the trade-off between Inflation and Unemployment short-run and long-run Philips Curve
- Consequences of inflation Measures to control Inflation.

References

- 1. Rowan, D.C Output, Inflation & Growth
- 2. Mankiew Macroeconomics
- 3. Sikdar, S Principles of Macroeconomics, OUP
- 4. D'souza, Erol Macroeconomics
- Andrew B. Abel, Ben S. Bernanke, Bean Croushore Macroeconomics, 8thEdn. Pearson.
- 6. Ackley (2nd ed.) Macroeconomic Theory and Policy
- 7. Branson Macroeconomic Theory and Policy
- 8. Dornbusch and Fisher: Macroeconomics
- 9. Froyen Macroeconomics
- 10. Levacic Macro Economics

(C-7)

3.3 Development Economics

Full Marks: 50

1. Economic Development

- Meaning of Development, different concepts of development –Sustainable development, Participatory development, Inclusive development, Human development, Growth and Development – Broad Indicators of Economic Development – Per capita Income – PQLI– Basic needs approach – Human Development Index – Gender Development Index –Gender Empowerment Measure - Human Poverty Index.
- 2. Underdevelopment
 - Characteristics of underdevelopment Obstacles to underdevelopment
 - Trap Models Critical minimum effort thesis Low level equilibrium trap Process of cumulative causation
- 3. Theories of Economic Growth
 - Rostow's Stage Theory Vicious circle of poverty and Balanced growth (Nurkse) Unbalanced growth (Hirschman)
- 4. Labour Surplus Economy and Development Strategy
 - Concept of surplus labour Surplus labour as potential saving Economic development with unlimited supplies of labour (Lewis Model).
 - Capital intensive Vs Labour intensive technique Choice of technique in a labour surplus economy.

References:

- 1. Thirlwall: Growth and Development
- 2. Debraj Roy: Development Economics
- 3. Meier (ed): Leading Issues in Economic Development
- 4. K. Basu: A Critique of Less Developed Economy
- 5. Debesh Bhattacharya: Political Economy of Development
- 6. Pearce and Turner: Economics of Natural Resources and the Environment

GE-3 (Any One) 1. Introductory Macroeconomics

Full Marks: 50

- 1. Introduction
 - □ Scope and nature of Macro Economics with emphasis on macroeconomic problems and Policies - Targets & Instruments of macroeconomic policy etc.
- 2. National Income Accounting
 - Circular flow of income two sector model Definition of national income Concepts and Measurement of GNP, NNP, GDP, NDP
 - Method of calculating national income- product method, income method and expenditure method.
- 3. The Classical System
 - □ Classical theory of employment full employment equilibrium in classical system Say's law of market criticism of classical model.
- 4. The Simple Keynesian Model
 - □ Aggregate demand, aggregate supply Keynesian Consumption Function and its properties Factors affecting Consumption Expenditure– MPC, APC Saving function income and output determination in two sector model–the multiplier.

References

- 1. Dornbusch, Fischer and Startz, Macroeconomics, McGraw Hill, 11th edition, 2010.
- 2. N. Gregory Mankiw. Macroeconomics, Worth Publishers, 7th edition, 2010.
- 3. Olivier Blanchard, Macroeconomics, Pearson Education, Inc., 5th edition, 2009.
- 4. Richard T. Froyen, Macroeconomics, Pearson Education Asia, 2nd edition, 2005.
- 5. Haridas Acharya : AdhunikArthaniti 6. JaydebSarkhel: ArthanaitikTatta

2. Contemporary Issues of Indian Economy

- 1. Economic Planning
 - Planning in a mixed economy The Indian experience Pre 1991 and Post 1991 plans Overall success and failures

- Critical Evaluation of functioning pattern of Planning Commission
- Objectives behind formation of Niti Ayog
- 2. Public Sector in India
 - Role of public sector in India during the plan period
 - Problems and policies with special emphasis on disinvestment policy
- 3. India's Foreign Trade
 - Foreign trade policy 2009-2014
 - Position of India's trade balance
 - Special economic zones Arguments in favour of and against them □ Foreign investment inflows since 1991.
 - 4. Indian Tax System
 - Direct and Indirect Taxes Taxes on income and Wealth Indian Tax Reform since 1991.

- 1. Dutta and Sundharam: Indian Economy
- 2. Mishra and Puri: Indian Economy
- 3. Dhingra, I.C: Indian Economy
- 4. Bhagwati and Chakraborty: Contributions to Indian Economic Analysis
- 5. Jalan: Indian Economic Crisis
- 6. Uma Kapila: Indian Economy
- 7. Debesh Mukherjee: Samakalin Bharatiya Arthaniti

SEC-I

1. Data Analysis

Full Marks: 50

- 1. Presentation of Data
 - Introduction, methods of presentation of data, textual presentation of data, tabular presentation of data, diagrammatic representation of data.

2. Data Processing

- Introduction to Data Processing Steps of Data Processing Problems associated with Data Processing
- 3. Analysis of Data

 Various Types of Data Analysis (quantitative, qualitative; cross section, time series) – Introduction of Statistical Tools used in Data Analysis

References

- 1. Gary Koop Analysis of Economic Data, John Wiley & Sons Ltd.
- 2. C R Kothari Research Methodology: Methods and Techniques, New Age International.
- 3. B C Tandon Research Methodology in Social Sciences, Chaitanya Publishing House. 4.
- D. Bhattacharya and S. Roychowdhury Statistics Theory and practice

Semester-4 (C-8) 4.1 Statistical Method – II

- 1. Time Series
 - Nature and decomposition of time series analysis of trend—polynomial trend exponential trend – non-linear growth curves – moving average method – seasonal component-(simple numerical exercise)
- 2. Probability Theory
 - Random Experiments Mutually Exclusive, Equally Likely and Collectively Exhaustive Events – Probability: Classical and Axiomatic Definition – Complementary Event – Theorem of Total Probability – Conditional Probability – Theorem of Compound Probability – Independent Events, Bayes' Theorem.
- 3. Random Variables and Mathematical Expectation
 - □ Definition of random variables probability function and distribution function– mass and density function expectation and variance of random variables.
- 4. Univariate Probability Distributions
 - Binomial, Poisson, Normal Distributions Mean, Variance. Moment Generating Functions.
- 5. Sampling Theory and Sampling Distributions
 - Population and Sample Parameter and Statistic Random Sampling Practical

Methods of Drawing Random samples – Random sampling Numbers – Sampling Distribution – Standard Error

• Sampling Distributions associated with Normal Population, Expectation and Standard Error of Sample Mean.

6. Estimation and Testing of Hypothesis

- Desirable Properties of estimators Unbiasedness, Minimum Variance, Efficiency, Consistency – Simple Methods of Point Estimation – Maximum Likelihood Estimators and their properties.
- Null hypothesis & Alternative Hypothesis Confidence Intervals Testing of Hypothesis p-value Type-I and Type-II Errors Simple applications of tests for the Mean and Variance of a Univariate Normal Population.

References:

- 1. Nagar and Das Basic Statistics
- 2. Mathai & Rathie Probability and Statistics
- 3. Goon, Gupta and Dasgupta Fundamentals of Statistics, Vol. I & Vol. II
- 4. R Spiegel and L.J. Stephen. Statistics, Schaum Series
- 5. Sheldon Ross: A First Course in Probability, 9thEdn. Pearson
- 6. E. Rukmangadachari: Probability and Statistics-Pearson

(C-9)

4.2 Indian Economics -I

Full Marks: 50

1. Structural Changes in Indian Economy

- Trends in national income, per capita income Changes in occupational pattern
- Sectoral distribution of national income during the post independence period
- 2. Agricultural Sector
 - Land reforms
 - Farm size and Productivity
 - Green revolution-causes and impacts.
 - Agricultural marketing, concepts of food security and public distribution system in India.
- 3. Industrial Sector

□ Industrial policy resolution (1948, 1956) - licensing policy;New industrial policy, 1991; the EXIT policy; present problems of SSIs and large scale industries in India and its remedies.

- 4. Population
 - □ Trend of Population Growth in India in recent years-Problems associated with population growth-National population policy Demographic dividend

5. Poverty and Unemployment

- Poverty-Concept and measurement issues
- Nature and types of unemployment in India Problem of measurement of unemployment
- Unorganized labour market-Participation of female and child labour

6. The Parallel Economy in India

□ Concept of black money – estimates – Sources – impacts – measures to tackle black money

Referencess

6.	Dutta and Sundharam:	Indian Economy
7.	Mishra and Puri:	Indian Economy
8.	A.N.Agarwal	Indian Economy
9.	Dhingra, I.C:	Indian Economy
10	. Bhagwati and Chakraborty:	Contributions to Indian Economic Analysis
11	. Jalan:	Indian Economic Crisis
12	. Uma Kapila:	Indian Economy
13	. Debesh Mukherjee:	Samakalin Bharatiya Arthaniti

(C-10)

4.3 Mathematical Economics-II

1. Determinants and Matrices:

Concepts of Scalar, Vector and Matrices — Some specific Matrices : Diagonal, Triangular, Identity, Null, Symmetric, Idempotent – Matrix operations; Addition, Subtraction and Multiplication of Matrices – Transpose and Inverse of Matrices-Determinants-Minor and Cofactor- Properties of Determinants- Bordered Hessian Determinant – Technique of solving Simultaneous Equations by Cramer's Rule.

2. Linear Programming:

Linear Programming Technique as a Tool of optimization – General Formulation of the LP Problem – Applications in Economics – Graphical solution of some standard problems (Maximization and Minimization) – Concepts of Slack Variable, Basic Feasible Solution – Solution of some simple problems by Simplex Method (Maximization case only)- The Dual problem – Economic Interpretation of Duality.

3. Input – Output Analysis:

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Lectures

Basic Concept of Input-Output Analysis – Assumptions and structure of the Leontief Static Open Model (2×2 Case) – Solution in such a Model – Hawkins – Simon condition and its Economic Interpretation – Price System in LSOM (2×2 Case) with Economic Implications.

4. Basic Game Theory:

Basic Concepts and Assumptions of Game Theory – Two Person – Zero – Sum Game with and without Saddle Point – Concept of Dominance – Elements of Non – Zero – Sum Game – Prisoner's Dilemma – Concept of Dominant Strategy equilibrium and Nash Equilibrium – Sub-game Perfect Nash Equilibrium- Applications.

Suggested Readings:

- 1. W. J. Baumol: Economic Theory and Operation Analysis, Prentice Hall.
- 2. Drofman, Samuelson and Solow : Linear Programming and Game Theory : An Economic

Analysis

- 3. N. D. Vora : Quantitative Techniques in Management, Tata McGraw Hill.
- 4. Sharma : Operation Research , Theory and Applications, Macmillan India Ltd.
- 5. Taro Yamane : Mathematics for Economist- An Elementary Survey.

GE-4 (Any One)

1. Public Economics

Full Marks - 50

1. Introduction to Instruments and Objective of Public Economics

- The nature, scope and significance of public economics Concept of Public goods and private goods characteristics of public goods
- Externality Types of externality-positive and negative externality (concept only) Market failure (concept only)

2. Principles of Taxation

Ability and benefit approaches – cannons of taxation – direct and indirect tax - income versus expenditure tax – Proportional, progressive and regressive taxation - impact, shifting and incidence of taxes- effects of taxation.

- 3. Public Debt
 - Definition internal and external public debt burden of public debt
- 4. Indian Public Finance
 - Features of India's Federal finance Center-state financial relations

Referencess:

- 1. Musgrave Theory of Public finance
- 2. Subrata Ganguly Public Finance
- 3. B. Mishra Public Finance
- 4. Radha Shyam Samanta International Economics and Public Economics
- 5. Debesh Mukherjee Samakalin Bharatiya Arthaniti

2. Development Economics

Full Marks: 50

- 1. Economic Development
 - Meaning of Development, different concepts of development –Sustainable development, Participatory development, Inclusive development, Human development, Growth and Development – Broad Indicators of Economic Development – Per capita Income – PQLI– Basic needs approach – Human Development Index – Gender Development Index –Gender Empowerment Measure - Human Poverty Index.
- 2. Underdevelopment
 - Characteristics of underdevelopment Obstacles to underdevelopment
- 3. Theories of Economic Growth
 - Rostow's Stage Theory Vicious circle of poverty and Balanced growth (Nurkse)
- 4. Labour Surplus Economy and Development Strategy
 - Concept of surplus labour Surplus labour as potential saving Economic development with unlimited supplies of labour (Lewis Model).

References:

- 1. Thirlwall: Growth and Development
- 2. Debraj Roy: Development Economics
- 3. Meier (ed): Leading Issues in Economic Development
- 4. K. Basu: A Critique of Less Developed Economy
- 5. Debesh Bhattacharya: Political Economy of Development Pearce and Turner: Economics of Natural Resources and the Environment

SEC-2

Rural Development

Full Marks: 50

1. Rural Development - Background & Concept:

Understanding Rural Communities: Structure, Culture and Polity. Development Theories. Lewis model of development, Gandhian model of development; Sustainable Development. Basic concept and issues; Decentralized Governance. Decentralised Planning and Participatory Approach to Rural Development and Role of NGOs

2. Policies and Programmes for Rural Development:

Rural Development Programmes since independence: IRDP RLEGP, NREP; Rural Development Programmes for Sustainable Development and Poverty Alleviation.: MGNREGA, SGSY, IAY, PMGSY; Vulnerable Groups and Rural Development. Issue of empowerment of Rural women:

Role of Govt and NGOs

3. Resources and Livelihoods:

Livelihoods: State of Agriculture as a source of livelihood and need for diversified employment

Resources. and Environment: forestry, fishery, watershed development and peoples' livelihood Non-Farm Livelihoods: Importance of development of non-farm sector; rural industrialization programme

4. Stakeholders in Rural Development:

Rural development and its Stakeholders; Cooperatives and other Formal and Informal Organizations; Credit and Micro-finance

Reference books

Singh Kartar: Rural Development: Principles, Policies and Management. Sage Publications.

Misra & Sharma: Problems and Prospects of Rural Development

Venkata Reddy K: Rural Development In India Poverty and Development

Yasant Desai: A Study of Rural Economy

Nanavati & Anjalia: The Indian Rural Problems

Bhattacharya S.N.: Rural Industrialization in India

Vasant Desai: Problems and Prospects of Small Scale Industries in India N.I.R.D. Rural Development in India - Some Facets Wilbert E. Moore Social Change

Semester –5

(C-11)

5.1 Public Finance

Full Marks: 50

1. Introduction to Public Finance

• Definition and scope of public finance

Types of fiscal functions – allocation function, distribution function and stabilization function – fiscal functions in a developing economy

- Concept of Public goods and private goods characteristics of public goods
- Externality Types of externality-positive and negative externality Market failure

2. Principles of Taxation

• Ability and benefit approaches – cannons of taxation – direct and indirect tax - income versus expenditure tax – Proportional, progressive and regressive taxation - impact, shifting and incidence of taxes- effects of taxation.

3. Public Debt

- Definition internal and external public debt burden of public debt
- 4. Indian Public Finances
 - Fiscal federalism in India Center-State Financial relations

References:

1.R.A. Musgrave and P.B. Musgrave, Public Finance in Theory & Practice, McGraw Hill Publications, 5th edition, 1989.

- 2. J. Hindriks, G. Myles: Intermediate Public Economics, MIT Press, 2006.
- 3. H. Rosen, T. Gayer: Public Finance, 9th ed., McGraw-Hill/Irwin, 2009.
- 4. H. L Bhatia Public Finance
- 5. S. K. Singh Public Finance in Theory and Practice

(C-12)

5.2 International Economics

Full Marks: 50

1. Introduction

□ Basis of Trade – gains from trade

- 2. Theory of Trade
- The Ricardian theory generalization of Ricardian model- the H-O Model, comparison of Comparative Advantage in the two (HO and Ricardo) – Commodity and Factor pricesunder trade- factor price equalization (Stolper-Samuelson Theorem), factor intensity reversal and factor Prices-Leontief paradox, gains from trade and income distribution. Offer Curve, Rybczynscki theorem, Metzler Paradox.
- 3. Trade Intervention

Theory of Tariff and income distribution – tariffs terms of trade and domestic prices, tariffs and national income, the optimum tariff, other effects of tariffs – quotas and quantitative trade restrictions – effects of quotasand quantitative trade restrictions and balance of payments- trading state, the infant industry argument.

- Problems of international reserves and liquidity and of development finance.
- 4. Balance of Payments and Problems of Adjustment
 - The mechanism of adjustment under fixed exch. Rates automatic adjustment under Gold Standard- expenditure reducing and Expenditure switching policies –devaluation, the elasticity and absorption approaches – direct controls- mechanism of adjustment under flexible exchange rate and uncertainty, speculation and the stability of exchange rate and inflation- costs and benefits of flexible exchange rates.

References:

- 1. Soderstein, Bo: International Economics, 2ndEdition
- 2. Kennen, P: International Economics
- 3. Caves, Frankel and Jones: World Trade and Payments 4. Krugman and Obstfeld: International Economics

DSE Group A (Any One) (DSE-1 and DSE-2)

1. Classical Political Economy

Full Marks: 50

1. Classical Background (20 Lectures)

- Chief features of classical system, Adam Smith Labour Theory of Value, the Ricardian one sector model, Classical political economy and Marx.
- 2. Stages of Development
 - Marxian theory of stages of growth, Rostow's theory of stages of growth.

3. Marx's Theory of Value

- Qualitative and quantitative aspects of value, commodity fetishism, constant and variable capital, circuits of capital, surplus value, organic composition of capital.
- 4. The Reproduction Schemes & Accumulation of Capital army, accumulation and technological change.

5. Origin of Surplus Value and Profits

• The law of falling rate of profit - Theories of Crisis: Under consumption, realization crisis, disproportionality crisis.

References:

- 1. Ben Fine- Marx's capital
- 2. Sweezy- Theory of Capitalist Development.
- 3. M. Desai- Marxian Economics.
- 4. Marc Blaug, Economic Theory in Retrospect, 3rdEdn.
- 5. Felix Raj Contemporary Development Economics From Adam Smith to Amartya Sen

2. Indian Economic History

Full Marks: 50

- 1. India: Its Colonial Structure
 - Indian economy under colonial regime.
- 2. Macro Trends
 - National Income; population; occupational structure.

3. Agriculture

• Agrarian structure and land relations; agricultural markets and institutions – credit, commerce and technology; trends in performance and productivity; famines.

4. Railways and Industry

- Railways; the de-industrialisation debate; evolution of entrepreneurial and industrial structure; nature of industrialisation in the interwar period; constraints to industrial breakthrough; labor relations.
- 5. Economy and State in the Imperial Context
 - The imperial priorities and the Indian economy; drain of wealth; international trade, capital flows and the colonial economy changes and continuities; government and fiscal policy.

- 1. Lakshmi Subramanian, "History of India 1707-1857", Orient Blackswan, 2010, Chapter 4.
- 2. Tirthankar Roy, The Economic History of India 1857-1947, Oxford UniversityPress, 3rd edition, 2011.
- 3. Irfan Habib, Indian Economy 1858-1914, A People's History of India, Vol.28, Tulika, 2006.

3. Money and Financial Market of India

Full Marks: 50

1. Money

- Concept, functions, measurements, theories of money supply determination
- 2. Financial Institutions, markets, Instruments and financial innovations
 - Role of financial markets and institutions, problem of asymmetric information adverse selection and moral hazard; financial crisis
 - Money and capital markets; organization, structure and reforms in India; role of financial derivatives and other innovations
- 3. Banking system
 - Indian banking system; changing role and structure; banking sector reforms
- 4. Central Bank and Monetary policy
 - RBI and its functions, instruments of monetary control, current monetary policy of India

References

- 1. Rakesh Mohan: Growth with Financial stability central banking in an emerging market
- 2. L M Bhole and J MahukudFinancila institutions and market
- 3. M Y Khan Indian financial system
 - 4. Environmental economics
 - 1. Introduction

Concept of Environment: Atmosphere, biosphere and geosphere, Environment – economy interlink age, Material balance model.

2. Externality and property right issues

Market failure and externality, concept of property right, public property, private property and common property resources, the Coase theorem

- 3. The design and implementation of environmental policy: Pigouvian taxes and effluent fees, tradable pollution permit, basic idea of cost benefit analysis
- Resources and pricing: Distinction between exhaustible and renewable resources, concept of user cost and optimal depletion rules
- 5. International environmental problem:

Trans-boundary environmental problem and climate change issues, basic aspects of Kyoto protocol, Trade and environment.

6. Sustainable development : Basic concept, measures and policies of sustainable development.

References:

- 1. Charles Kolstad, Intermediate Environmental Economics, Oxford University Press,2nd edition, 2010.
- 2. Robert N. Stavins (ed.), Economics of the Environment: Selected Readings, W.W.Norton, 5th edition, 2005.
- 3. Roger Perman, Yue Ma, James McGilvray and Michael Common, Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 3rd edition, 2003.
- 4. Rabindranath Bhattacharya (ed.) Environmental Economics. OUP

Semester-6 (C-13) 6.1 Basic Econometrics

Full Marks: 50

1. Introduction

□ Concept - Types – theoretical and applied econometrics- importance and role of Econometrics in economics- Classical Methodology of Econometrics.

- 2. The Classical Linear Regression Model (Two variable case)
 - The Classical Ordinary Least Square Method (CLSM) Assumptions estimation of parameters in two variable case Properties of least-square estimators testing of regression coefficients BLUE Goodness of Fit the Coefficient of determination R² Numerical Problems.
- 3. The Classical Linear Regression Model (Three variable case)
 - □ The Classical Ordinary Least Square Method (CLSM) estimation of parameters with Two independent variables.
 - 4. Violations of Classical Assumptions
 - Definition, Detection, Consequences, Remedies of Multicillinearity, Heteroscedasticity, Autocorrelation.

- 1. Dominick Salvatore (2001): Schaum's Outline of Statistics and Econometrics, McGraw-Hill.
- 2. Maddala: Introduction to Econometrics
- 3. Gujrati, N Damodar (2011): Basic Econometrics.
- 4. Peter Kennedy (2004): A Guide to Econometrics, Blackwell Publishers.
- Pindyck, Robert S., and Daniel L. Rubinfeld (1998): Econometric Methods and Economic Forecasts, 4thEdn. McGraw-Hill.
- 6. Koutsoynnis: An Introduction to Econometrics

(C-14)

6.2 Indian Economics - II

- 1. Economic Planning
 - Planning in a mixed economy The Indian experience Pre 1991 and Post 1991 plans Overall success and failures
 - Critical Evaluation of functioning pattern of Planning Commission
 - Objectives behind formation of NitiAyog
- 2. Indian Tax Structure during Plan Period

- Composition of Govt. revenue and expenditure
- Trends, problems, reforms in tax structure
- Centre State financial relation
- 3. Public Sector in India
 - Role of public sector in India during the plan period
 - Problems and policies with special emphasis on disinvestment policy
- 4. India's Foreign Trade
 - Foreign trade policy 2009-2014
 - Position of India's trade balance
 - Special economic zones Arguments in favour of and against them □ Foreign investment inflows since 1991.

- 1. Dutta and Sundharam: Indian Economy
- 2. Mishra and Puri: Indian Economy
- 3. Agarwal: Indian Economy
- 4. B A Prakash: The Indian Economy: Economic Reforms and Performance since 1991 (2ndEed.), Pearson.

DSE Group B (Any One) DSE-3 and DSE-4

1. Economics of Growth

Full Marks: 50

1. Introductory Growth Models

- Harrod Model of Growth Domar Model of Growth Comparison of Harrod and Domar Growth Models Harrod-Domar Growth Model.
- 2. Exogenous Growth Model
 - Solow Model Absolute and Conditional Convergence Steady State Golden Rule of Capital Accumulation Transition of the Golden Rule Steady State.
- 3. Endogenous Growth Model
 - Basic AK Model
- 4. Trade and Development
 - Trade as an engine of growth Terms of trade and economic development (Prebisch Singer Thesis) Imports substitution Vs export promotion.

- 1. Barro, Robert and Xavier Sala-i-Martin: Economic Growth. (MIT Press)
- 2. David N Weil:
- 3. Todaro and Smith:

4. Thirwall A.P:

- Economic Development (Pearson Education):
 - Growth and Development (Palgrave McMillan):

Economic Growth (Prentice Hall)

5. Felix Raj: Contemporary Development Economics: From Adam Smith to Amartya Sen

2. Urban Economics

Full Marks: 50

1. Introduction and Economics of Urbanization

- Definition and Scope of Urban Economics the Space-economy interaction
- Economics of Urbanization- The emergence and |Development of Urban Areas- an Economic Perspective, Urbanization in India with Special reference to West Bengal-Trends and Patterns.

2. Basics of Urban Economics

- Urban system Hierarchy and city size distribution; Central Place Theory
- Location Theory- Intra and Inter-urban Location of Economic Activities- The distance decay relationship- Concept of gradients
- Urban Base Theory Theory of Optimal City Size
- New Economic Geography theory

3. Urban Public Economy

- Urban local Administration Role and Functions Methods of Financing Urban Government Expenditure
- 4. Urban Problems and Urban Infrastructural Development

- Urban Housing Problem, Slums and Informal Sector– Urban transport Urban Environment – Urban Poverty, Unemployment, Migration
- Urban Renewal Programme

- 1. O' Sullivan, (2007): Urban Economics (7th edition), IRWIN, London (Basic Text)
- 2. Balchinet. al (2000): Urban Economics: A Global Perspective, Palgrave
- 3. Evans, A.W(1985), Urban Economics: An Introduction, Basil Blackwell
- Kundu, Singh and Sivaramakrishnan (2002): A Handbook of Urbanisation in India (2nd Edition)
- 5. Chatterjee, Mahalaya (2013): "Urbanisation in West Bengal; Trends and Future Perspective", Local Government Quarterly (June-September)
- 6. Giri, Pabitra (1997): "Urbanisation in West Bengal", Economic and Political Weekly 47 (40)
- 7. Ghosh Mousumi :Urbanisation in Asansol A Study in Spatial Economics, Maha Bodhi Book Agency, Kolkata, 2016.
- 8. Mukhopadhyaya Ramesh Chandra (ed) (2008) নগরায়ন A collection of essays on Urbanisation in Bengali, Underground Literature, Kolkata

3. Entrepreneurial Economics

- 1. Entrepreneurship
 - Concepts and basic characteristics of entrepreneurship
 - Function and types of entrepreneurs
 - Role of entrepreneurship in economic development
 - Rural entrepreneurship meaning, need and problems
- 2. Project Identification and Selection
 - Meaning of project- project report planning commission's guidelines for formulating a project report
- 3. Theories of Entrepreneurship
 - Motivation theories
 - Maslow's need hierarchy theory

- Mclleand's acquired needs theory
- Motivating Factors
- 4. Financial Resources for New Ventures
 - Sources of finance capital structure institutional support to enterprises—national small industries board – state small industries development corporation--- district industries center - industrial estates
- 5. Expansion Strategies
 - Growth strategies in small business
 - Support infrastructure and operational environment for successful entrepreneurship.

- 1. Khanka, S.S. Entrepreneurial Development, S. Chand and Company
- 2. Bolton, Bill and John Thompson, Entrepreneur: Talent, Temperament and Technique, Butterworth and Heinenmann
- 3. Szirmai, Adam, Dynamics of Socio-economic Development, CUP
- 4. Dreze, J. and A. Sen, India: Economic Development and Social Opportunity, OUP
- 5. Karmakar, K.G., Rural Credit and Self-Help Groups, Sage Publications
- 6. Sau, S. Rural Industrialization Development Trajectory in India, Farma KLM

4. Project

Full Marks: 50

- 1. Introduction Motivations Literature Review Objectives Methodology Estimator Policy Suggestion Bibliography
- 2. Project may be on any of the following topics
- Socio-economic characteristics
- Price index
- Comparison across states w.r.t economic indicators (e.g. SDP, NSDP, SGDP etc.) [] Inequality

Note: Project may be based on field survey or from secondary data source

*Note: 40 Marks (Report Writing) = Evaluation by External 10 Marks (Viva-Voce) = Evaluation by Internal

References:

- Data Analysis Using Microsoft Excel Ash Narayan Sah. Excel Books India
- Excel 2010 For Dummies Colin Banfield, John Walkenbach
- Gray Koop (2009), Analysis of Economic Data, 3rd Edition (University of Strathclyde, UK)
