

# The University of Burdwan



**B.A./B.Sc. (Honours)**  
**In**  
**Economics**  
**w.e.f. 2017-18**  
**under Semester with CBCS**

**Structure of Syllabus for BA/B.Sc.Honours in Economics under Semester with CBCS**

**Students must have to pass in Mathematics/ Business Mathematics or equivalent at +2 Level**

| SEM | Paper Code | Paper Description  | Course Type | L-T-P          | Credit | Marks |
|-----|------------|--|-------------|----------------|--------|-------|
| I   |            | Introductory Microeconomics                                | CC-1        | 5-1-0          | 6      | 75    |
|     |            | Statistics-I   | CC-2        | 5-1-0          | 6      | 75    |
|     |            | AECC-I ENVS  | AECC-1      | 4-0-0          | 4      | 100   |
|     |            | Generic Elec(GE)-I – any discipline other than Economics   | GE-1        | 5-1-0          | 6      | 75    |
| II  |            | Introductory Macroeconomics                                | CC-3        | 5-1-0          | 6      | 75    |
|     |            | Mathematical Economics –I                                  | CC-4        | 5-1-0          | 6      | 75    |
|     |            | AECC-II Communicative English / MIL                        | AECC-2      | 2-0-0          | 2      | 50    |
|     |            | Generic Elec(GE)-II – any discipline other than Economics  | GE-2        | 5-1-0          | 6      | 75    |
| III |            | Intermediate Microeconomics                                | CC-5        | 5-1-0          | 6      | 75    |
|     |            | Intermediate Macroeconomics                                | CC-6        | 5-1-0          | 6      | 75    |
|     |            | Mathematical Economics –II                                 | CC-7        | 5-1-0          | 6      | 75    |
|     |            | Skill Enh Course (SEC)-I                                   | SEC-1       | 2-0-0          | 2      | 50    |
|     |            | Generic Elec(GE)-III – any discipline other than economics | GE-3        | 5-1-0          | 6      | 75    |
| IV  |            | Selected Features of Indian Economy                        | CC-8        | 5-1-0          | 6      | 75    |
|     |            | Statistics-II  | CC-9        | 5-1-0          | 6      | 75    |
|     |            | Development Economics                                      | CC-10       | 5-1-0          | 6      | 75    |
|     |            | Skill Enh Course(SEC)-II                                   | SEC-2       | 2-0-0<br>0-0-2 | 2      | 50    |
|     |            | Generic Elec(GE)-IV – any discipline other than economics  | GE-4        | 5-1-0          | 6      | 75    |

|    |   |                               |              |       |   |    |
|----|---|-------------------------------|--------------|-------|---|----|
| V  |   | International Economics       | <b>CC-11</b> | 5-1-0 | 6 | 75 |
|    |   | Money and Banking             | <b>CC-12</b> | 5-1-0 | 6 | 75 |
|    | * | DiscSpElective(DSE)-I         | <b>DSE-1</b> | 5-1-0 | 6 | 75 |
|    | * | DSE-II                        | <b>DSE-2</b> | 5-1-0 | 6 | 75 |
| VI |   | Basic Econometrics            | <b>CC-13</b> | 5-1-0 | 6 | 75 |
|    |   | Field Survey & Project Report | <b>CC-14</b> | 0-0-6 | 6 | 75 |
|    | * | DSE-III                       | <b>DSE-3</b> | 5-1-0 | 6 | 75 |
|    | * | DSE-IV                        | <b>DSE-4</b> | 5-1-0 | 6 | 75 |

\* **Discipline Specific Electives**

|   |   |
|---|---|
| <b><u>DSE 1 (Semester V)</u></b>                                    | <b><u>DSE 3 (Semester VI)</u></b>                         |
| Rural Development<br>Or<br>Selected Features of West Bengal Economy | Social Economics<br>Or<br>Political Economy               |
| <b><u>DSE 2 (Semester V)</u></b>                                    | <b><u>DSE 4 (Semester VI)</u></b>                         |
| Environmental Economics<br>Or<br>Public Economics                   | Entrepreneurship Development<br>Or<br>Financial Economics |

\* **Skill Enhancement Courses**

|   |  |
|---|--|
| <b><u>SEC 1 (Semester-III)</u></b>  | <b><u>SEC 2 (Semester-IV)</u></b>  |
| Indian Official Statistics<br>Or<br>Insurance Market & Products<br>Or<br>Managerial Economics | Basic Computer Applications<br>Or<br>Indian Stock Market Trading<br>Or<br>Business Project Formulation & Appraisal |

**Generic Electives (for other disciplines)**

|                                    |
|------------------------------------|
| GE 1 : Microeconomics              |
| GE 2 : Macroeconomics              |
| GE 3: Development Economics        |
| GE 4: Features of Indian Economics |

### Honours Course Structure

| <i>Semester</i> | <i>Core Course</i> | <i>Subject Elective (DSE)</i> | <i>Generic Elective (other dept)</i> | <i>AECC</i>      | <i>AECC</i>      | <i>SEC</i>       | <i>Total Courses</i> | <i>Total Credits</i> |
|-----------------|--------------------|-------------------------------|--------------------------------------|------------------|------------------|------------------|----------------------|----------------------|
|                 | <b>6 credits</b>   | <b>6 credits</b>              | <b>6 credits</b>                     | <b>2 credits</b> | <b>4 credits</b> | <b>2 credits</b> |                      |                      |
| I               | 2                  |                               | 1                                    |                  | 1                |                  | 4                    | 22                   |
| II              | 2                  |                               | 1                                    | 1                |                  |                  | 4                    | 20                   |
| III             | 3                  |                               | 1                                    |                  |                  | 1                | 5                    | 26                   |
| IV              | 3                  |                               | 1                                    |                  |                  | 1                | 5                    | 26                   |
| V               | 2                  | 2                             |                                      |                  |                  |                  | 4                    | 24                   |
| VI              | 2                  | 2                             |                                      |                  |                  |                  | 4                    | 24                   |
| Total Courses   | <b>14</b>          | <b>4</b>                      | <b>4</b>                             | <b>2</b>         | <b>4</b>         | <b>2</b>         | <b>26</b>            |                      |
| Total Credits   | <b>84</b>          | <b>24</b>                     | <b>24</b>                            | <b>2</b>         | <b>4</b>         | <b>4</b>         |                      | <b>142</b>           |

### Semester I

CC1

### Introductory Microeconomics

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

#### 1. General Concept

**(08 Lectures)**

- Scope of Economics- Distinction between Microeconomics and Macroeconomics – concept of different Microeconomic units – commodity, consumer, firm, industry and market. Determinants of demand and supply, demand curve, supply curve – concepts of equilibrium, - statics, dynamics, comparative statics and stability of equilibrium, concept of elasticity.

#### 2. Consumer Behaviour

**(25 Lectures)**

- 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 – consumer's equilibrium, price consumption curve and income consumption curve, - price effect, income effect and substitution effect, derivation of demand curve – Giffen Paradox – market demand.

- 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.
- The Revealed Preferences approach –negativity of substitution effect from Revealed Preferences approach.

### **3. Producer Behaviour**

**(25 Lectures)**

- Production function: the neo-classical production function – relation between total, average and marginal productivities – law of variable proportions – the fixed coefficient production function.
- Isoquant and properties of iso-quant, Iso-cost line. 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. Market -1**

- **Theory of Perfect Competition**

**(12 Lectures)**

Perfect competition —Short run and long run equilibrium of a competitive firm – Short run and long run supply curves—Elasticity of Supply. Long run equilibrium of the competitive industry – price determination in a competitive industry, producer's surplus – 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.

### **References:**

1. Robert S. Pindyck, Daniel L. Rubinfeld, PremL.Mehta: Microeconomics, 7<sup>th</sup> Edn. Pearson.
2. Koutsoyiannis: Microeconomic Theory
3. Ferguson and Gould: Microeconomic Theory
4. H. Varian: Intermediate microeconomics
5. Henderson and Quandt: Microeconomic Theory
6. Ryan and Pearce: Price Theory, Macmillan.
7. A. Bilas : Microeconomics

## CC2 Statistics –I

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

### **1. Tabular and Diagrammatic Presentation of Data: (05 Lectures)**

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 (10 Lectures)**

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 (10 Lectures)**

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)

### **4. Skewness and Kurtosis (09 Lectures)**

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)

### **5. Bivariate Data: Simple Correlation and Regression Analysis (15 Lectures)**

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)

### **6. Multiple and Partial Correlation (08 Lectures)**

– three variable case – deduction of formula – Simple numerical Problems.

### **7. Index Numbers (05 Lectures)**

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

### **8. Time Series (08 Lectures)**

Nature and decomposition of time series – analysis of trend—polynomial trend – exponential trend – non-linear growth curves

### **References:**

Goon, Gupta and Dasgupta – Fundamental of Statistics, Vol. I & II

Goon, Gupta and Dasgupta – Basic Statistics  
Yule and Kendall – An Introduction to the Theory of Statistics  
Gupta and Kapoor – Fundamental of Mathematical Statistics.  
N. G. Das – Statistical Method (Part I & II)

## **Semester – II**

CC3

### **Introductory Macroeconomics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Introduction**

**(Lectures - 5)**

Scope and nature of Macroeconomics with emphasis on macroeconomic problems and policies – Targets and instruments of macroeconomic policy etc. Concepts about closed economy and open economy.

**2. The National Income and products accounts**

**(Lectures - 15)**

- Definition, concepts and measurement of GNP, NNP, GDP, NDP, NI, DI, GNP deflator, GDP deflator and price indices.
- Interrelation between measures of national income in the absence and presence of Governmental sector and international transactions.
- Different methods of measuring national income – product method, income method and expenditure method.
- The Accounting identity of saving and investment.
- Problems of using national income as a measure of Economic welfare.
- Problems of measuring national income in any country
- Circular flow of income – equilibrium condition – concepts of injection, withdrawal etc.

**3. Consumption function**

**(Lectures - 8)**

- Keynesian consumption function and its properties – factors affecting consumption expenditure – saving function and its properties.
- Empirical findings regarding consumption function – Alternative theories – Permanent income hypothesis, Absolute income hypothesis, Life cycle hypothesis, Relative income hypothesis.

**4. The Simple Keynesian model of income determination**

**(Lectures - 15 )**

- Determination of equilibrium level of income – nature of equilibrium – 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
- Paradox of thrift.

**5. Money market**

**(Lectures - 12)**

- Motives of holding money – Transactions, Precautionary and Speculative motives.
- Keynesian liquidity preference theory – indeterminacy of rate of interest in the liquidity preference theory – the liquidity trap.
- Loanable fund theory of rate of interest determination
- The inventory theoretic approach to transaction demand for money – Baumol’s and Tobin’s version.
- Supply of money – Different sources of money supply –  $M_1$ ,  $M_2$ ,  $M_3$ , and  $M_4$  – functions of money – credit creation by commercial banks – money multiplier – high powered money – interest sensitivity of money supply.

**6. Interaction between commodity market and money market (Lectures - 15)**

- Construction of the IS and LM curves – Determination of equilibrium value of rate of interest and national income – stability of equilibrium.
- Comparative static analysis – effect of shift of saving, investment, Government expenditure, taxation, money demand, money supply, price level on the IS-LM framework.
- Relative effectiveness of monetary and fiscal policies in terms of IS-LM model.
- Crowding out effect
- Value of multiplier and comparison with simple Keynesian multiplier.

**References –**

1. Mankiew – Macroeconomics
2. Sikdar,S – Principles of Macroeconomics, Oxford University Press.
3. D’Souza, Erol – Macroeconomics, 2<sup>nd</sup> Edition, Pearson.
4. Ackley – Macroeconomic Theory and Policy, 2<sup>nd</sup> Edition.
5. Branson – Macroeconomic Theory and Policy
6. Dornbusch and Fisher: Macroeconomics
7. Froyen – Macroeconomics – Theories and Policies, 10<sup>th</sup> Edition, Pearson.
8. Levacic and Rebbman – Macroeconomics
9. Readings in Macroeconomics – Mueller (ed) (Selected articles).

**CC4**

**Mathematical Economics –I**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Single and multivariable functions:**

**15 Lectures**

- \* Logic and proof techniques
- \* Sets, Convex sets, Basic set operations
- \* Relations and functions
- \* Types of functions: quadratic, Polynomial, Power, Exponential, Logarithmic,

- \* Sequences and series: Convergence, algebraic properties and applications,
- \* Continuous functions, Characterizations, properties with respect to various properties and applications,
- \* Differentiable functions, Characterizations, properties with respect to various operations and applications,
- \* Second and higher order derivatives and applications,
- \* Total and partial differentiations, properties and applications,
- \* Homogeneous and non homogeneous functions, properties and applications.

**Applications in Economics:** Demand function- Elasticity of demand- Marginal revenue – Marginal utility- Relation between average and marginal revenue –Slope and curvature of indifference curve and Isoquant- Marginal product- Elasticity of factor substitution- Total product curve- Point of inflexion - Returns to scale- Properties of Cob Douglas production function- Product exhaustion theorem- Linear, Quadratic and Cubic cost functions.

**2. Unconstrained Optimization: 15 Lectures**

- \* Concave and convex functions, their characterizations and applications, local and global optima: geometric characterizations ,
- \* Characterizations using calculus, First order and second order conditions and applications.

**Applications in Economics:** Relation between AP and MP- Relation between AC and MC- Profit maximization.

**3. Constrained Optimization: 15 Lectures**

- \* Quasi-concave functions, level curves, their characterizations and applications,
- \* First order and second order conditions, characterizations using calculus and applications.

**Applications in Economics:** Utility maximization subject to budget constraint – output maximization subject to cost constraint – Cost minimization subject to output constraint.

**4. Integration of Functions: 10 Lectures**

Concept of Integration as a reverse process of differentiation – Rules of Integration – Techniques of definite integral.

**Applications in Economics:** Finding out total functions (TR, TC, Consumption function, Saving function) when marginal function are given – Consumer’s surplus – Producer’s surplus.

**5. Techniques of dynamic Analysis: 15 Lectures**

Notion of stationary values and stability – First order Differential Equation – First and Second order Linear Difference Equation with constant term.

**Applications in Economics:** Dornier’s Analysis of Growth - Price dynamics in a competitive market – The Cobweb Model- Dynamic multiplier – Multiplier Accelerator interaction Model.

**Suggested Readings:**

1. K. Sydsaeter and P. Hammond, *Mathematics for Economic Analysis*, Pearson Educational Asia: Delhi, 2002.
2. A.C Chiang, and K. Wainwright, *Fundamental Methods of Mathematical Economics*, 4<sup>th</sup> edn. Tata McGraw Hill Education Pvt. Ltd .2013.
3. B.Mukherjee and V, Pandit, *Mathematical Methods for Economic Analysis, Allied: 1989*
4. Taro Yamane, *Mathematics for Economist: An Elementary Survey*.

## **Semester- III**

**CC5**

### **Intermediate Microeconomics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

#### **1. Imperfect Competition**

**(18 Lectures)**

- 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 – Degree of price discrimination – equilibrium under price discrimination. Equilibrium under Multiple Plant monopoly – Monopsony - Equilibrium under bilateral monopoly.
- Monopolistic competition: Short run and long run equilibrium – excess capacity.

#### **2. Theory of Oligopoly**

**(18 Lectures)**

- Characteristics of oligopoly - non-collusive oligopoly models of Cournot and Stackelberg – collusive oligopoly – price leadership – market sharing model – price rigidity under oligopoly.

#### **3. Theory of Factor Pricing**

**(20 Lectures)**

- 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 profit - Gross and net profit- elements of profit- risk and uncertainty theory- Innovation theory of profit.

#### **4. General Equilibrium and Economic Welfare**

**(14 Lectures)**

- 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.

#### **References:**

1. Robert S. Pindyck, Daniel L. Rubinfeld, Prem L. Mehta: Microeconomics, 7<sup>th</sup> Edn. Pearson
2. H. Varian : Intermediate microeconomics
3. Ferguson and Gould : Microeconomic Theory
4. Henderson and Quandt : Microeconomic Theory
5. Koutsoyiannis : Microeconomic Theory

**CC6**  
**Intermediate Macroeconomics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**  
**(Lectures - 15)**

**1. Investment function**

- Keynesian theory of investment – The marginal efficiency of investment – shortcomings of Keynesian analysis.
- Marginal efficiency of capital (MEC) and Net present value (NPV) criterion of investment – comparison between them.
- Determination of optimum stock of capital by using MEC schedule – Relation between MC and MEI – factors affecting them.
- The Fixed Acceleration Principle of investment – its implications and limitations.
- The Flexible Acceleration Principle of investment – its implications and limitations.
- Induced investment function and different multipliers.

**2. The classical system**

**(Lectures - 12 )**

- The Classical view of macroeconomics in respect of the determination of employment, output and prices.
- The Classical quantity theory of money and its criticisms – Fischer's transaction version - Cambridge cash balance version – Friedman's restatement of quantity theory of money.
- Complete Classical model – full employment – Classical dichotomy – derivation of aggregate demand and aggregate supply curve – determination of equilibrium.
- Effect of change in different factors on complete Classical model.
- Say's law and Walras' law – The dichotomy between the real sector and monetary sector – neutrality of money.

**3. The Complete Keynesian model**

**(Lectures – 13 )**

- Derivation of aggregate demand and aggregate supply curve – Keynesian labour supply function – determination of equilibrium – wage rigidity – involuntary unemployment – Underemployment equilibrium – effects of change in money supply and other factors on complete Keynesian model – money illusion.
- Comparison with the Classical system – price flexibility – Real balance effect.

**4. Theory of inflation**

**(Lectures - 6)**

- The Quantity theory approach to inflation.
- Demand pull inflation and cost push inflation – comparison between them – Hyperinflation, mild inflation, mark up inflation – wage-price spiral.
- Inflationary gap – Limitations of it.

- Phillips curve – implication – short run and long run Phillips curve - Okun's law – Augmented Phillips curve – natural rate of unemployment
- Consequences of inflation – measures to control inflation.

**5. Economic Growth**

**(Lectures - 10)**

The Harrod – Domar model – assumptions – implications – actual, warranted and natural rate of growth – knife edge instability problem and its economic implication – causes behind it – properties of warranted rate of growth.

**6. Role of expectation**

**(Lectures - 8)**

Naive expectation, Cobweb phenomenon, Adaptive expectation, Rational expectation (Rules for building expectations) – Concepts only

**7. Open economy**

**(Lectures - 6)**

Foreign trade multiplier, Mundell-Flemming model

**References:-**

10. Mankiew – Macroeconomics
11. Sikdar,S – Principles of Macroeconomics, Oxford University Press.
12. D'Souza, Erol – Macroeconomics, 2<sup>nd</sup> Edition, Pearson.
13. Ackley – Macroeconomic Theory and Policy, 2<sup>nd</sup> Edition.
14. Branson – Macroeconomic Theory and Policy
15. Dornbusch and Fisher: Macroeconomics
16. Froyen – Macroeconomics – Theories and Policies, 10<sup>th</sup> Edition, Pearson.
17. Levacic and Rebbman – Macroeconomics
18. Readings in Macroeconomics – Mueller (ed) (Selected articles).

**CC7**

**Mathematical Economics –II**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Determinants and Matrices:**

**15 Lectures**

Concepts of Scalar, Vector and Matrices – System of Equations and their Representation through Vectors 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.

**Applications:** Partial Market Equilibrium Model- Simple National Income Determination Model – The IS – LM model and Comparative Static Analysis- Derivation of Slutsky Equation.

**2. Linear Programming:**

**15 Lectures**

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:**

**15 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:**

**15 Lectures**

Basic Concepts and Assumptions of Game Theory – Two Person – Zero – Sum Game with 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.

**5. Decisions under Uncertainty:**

**10 Lectures**

Maximin, Maximax , Hurwicz , Laplace and Savage Criterion for Optimal Decision.

**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.

**SKILL ENHANCEMENT COURSE (SEC) IN SEMESTER- III**

**SEC 1**

**Indian Official Statistics**

**Full Marks: 50**

**Credit: 2**

**Lectures: 30**

- Introduction: What is Official Statistics? Methods of Collecting Official Statistics, Aims and Objectives, Indian Statistical System: Main functions of Statistical System in Indian, Institutional Framework- Official Organizations for collecting/compiling/ publishing national/state level data on different variables ( **Lectures:6**)
- Economic Census: Economic Statistics, Population Statistics, Employment Statistics, Agriculture Statistics, Financial Statistics - Main Publications, Who collects - Periodicity and Features ( **Lectures:6**)

- Economic Survey: Understanding Economic Survey. ( Lectures:6)
- Sources of demographic data - Registration of Vital events. Rates and ratios. Measures of mortality. Measures of fertility and Reproduction. Use of demographic data for policy formulation. ( Lectures:6)
- International Statistical System: Comparison of major macro variables - National Income/GDP. Selected topics from: Purchasing power parity; Indicators relating to Energy, environment, Gender, Industry, National accounts, Social Statistics and Trade. (Lectures:6)

Reference Texts :

1. M. R. Saluja: Indian Official Statistical Systems.
2. CSO (MOSPI) Publication: Statistical System in India.
3. United Nations publications
4. RBI: Handbook of Statistics for the Indian Economy (various years)
5. Economic Survey, Govt. of India, Ministry of Finance (various years)
6. R. Ramkumar: Technical Demography.
7. K. Srinivasan: Demographic Techniques and Applications.
8. B. D. Mishra: An Introduction to the Study of Population.
9. H. S. Shryock: The Methods and Materials in Demography.
10. Economic Survey (latest), Government of India, Ministry of Finance. Full chapter (excluding boxed items) on 'Economic Outlook, Prospects, and Policy Challenges' and 'Fiscal Framework'. Other selections to be determined each year.

**OR**

**SEC 1**

## **MANAGERIAL ECONOMICS**

**Full Marks: 50**

**Credit: 2**

**Lectures: 30**

### **1. Meaning and Scope of Managerial Economics - ( Lectures:10)**

Organisational Goals – Profit maximization hypothesis, Critique of profit maximization hypothesis- alternative goals of the firm – Managerial theories- Baumol, Williamson, Behavioural Theory of the Firm.

### **2. Demand Analysis: ( Lectures:5)**

Demand forecasting, Methods of demand forecasting: Survey Method, Statistical Methods – Trend Projection method, Regression Method, Leading Indicator Method. (Simple numerical problems)

### **3. Price determination under different structures: ( Lectures:10)**

Methods of price determination in practice – Mark up pricing, Limit pricing, Average cost pricing, Peak load pricing, Multiple product pricing, Transfer pricing.( Simple numerical problems).

**4. Financial Investment decisions:**

**( Lectures:5)**

Distinction between real and financial assets, Needs of financial investment, Alternative financial instruments and investments.

**References:**

1. Koutsoyiannis .A: Modern Microeconomics, MacMillan.
2. Hague: Managerial Economics, ELBS.
3. Cyert and March: A Behavioural Theory of the Firm, Prentice Hall.
4. Henderson and Quandt: Microeconomic Theory. McGraw Hill
5. Stonier and Hague: A Text Book of Economic Theory, ELBS.
6. Baumol : Economic Theory and Operation Analysis, Prentice Hall.
7. Maheswari and Varsheny : Managerial Economics, S.Chand & Co.
8. Thomas. C.R., Maurice, S.C., Sarkar, S : Managerial Economics , Tata McGraw Hills.
9. Peterson, C.H., Lews, W.C, Jain, S.K : Managerial Economics ,Peason Edition.
10. Mithani, D.M : Managerial Economics- Theory and Applications, Himalya Publishing House.
11. Damodaran, S.: Managerial Economics, Oxford University Press.,New Delhi.
12. Mehta, P.L.: Managerial Economics – Analysis, Problems and Cases, S. Chand and Sons.
15. Chiang: Fundamental Methods of Mathematical Economics, McGraw Hill.
16. Madnani : Quantitative Microeconomics, Oxford and I.B.H Publishing Company.
18. Ferguson and Gold: Microeconomic Theory, Richard d. Irvin Inc.
19. Lipsey: An Introduction to Positive Economics, ELBS.

**OR**

**SEC 1**

**INSURANCE MARKET AND ITS PRODUCTS**

**Full Marks: 50**

**Credit: 2**

**Lectures: 30**

**1. Evolution of Insurance:**

**( Lectures:12)**

Meaning of Insurance; Nature, Functions, History of Insurance; Different Classifications: Comparison of Life Insurance with other Insurances, Health insurance, Postal Life Insurance, Credit Insurance, Marine Insurance; Insurance organizations in India; Impact of privatization on insurance product diversification; IRDA Act, 1999, The Insurance (Amendment) Act, 2002.

**2. Basic Principles of Insurance:**

**( Lectures:12)**

Key concepts, Economic Principles, Principles of insurance viz. Utmost good faith, Insurable interest, Indemnity, Subrogation, Contribution and Proximity Cause. Methods of reinsurance: shopping reinsurance, facultative reinsurance, automatic or treaty reinsurance.

**3. Claim management in insurance: ( Lectures:12)**

Significance of claims settlement, Claims under various classes of insurance, Disputes, Arbitration and Litigation, Trends in claims.

**Suggested Readings:**

1. Insurance Institute of India (2011). *Principles of Insurance*, Available at: <https://www.insuranceinstituteofindia.com/documents/10156/7b65c3ab-b4a8-426c-bc64-61b36ad41618>, Mumbai
2. Periasamy, P. (2013). *Principles & Practice of Insurance*, 2<sup>nd</sup> Edition, Himalaya Publishing House
3. Sharma, R.S. (1953). *Insurance Principles and Practice*, Vora, Delhi.
4. Singh, A. *Principles of Insurance Law*, Easter Book Co.
5. Tripathy, N.P. & Pal, P. (2006). *Insurance: Theory & Practice*, 2<sup>nd</sup> Edition, Prentice – Hall of India P Ltd, New Delhi

**Semester – IV**

**CC8**

**Selected Features of Indian Economy**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Economic Development since Independence (Lectures:15)**

Major features of the economy at independence; Planning: Evolution of India's development goals and strategies -Structural constraints and Indian development strategy: Debates between Growth and distribution, Public sector vs. Private sector, Consumer goods vs. Capital goods, Import substitution vs. Export promotion ; growth and development under different policy regimes—goals, constraints, institutions and policy framework; an assessment of performance— sustainability and regional contrasts; structural changes, savings and investment including the saving-investment paradox Population and Human Development

**2. Population and Human Development (Lectures:10)**

Demographic trends and issues; education; health and malnutrition

**3. Development and Distribution (Lectures:10)**

Trends and policies in poverty including Sen's Entitlement Analysis; inequality and unemployment

**4. Macroeconomic Policies and Their Impact (Lectures:15)**

Objectives of Fiscal Policy. Centre – State financial relation. Composition of govt. revenue and expenditure. Tax reforms since 1991. Public debt. Objectives of RBI's monetary policy. Structure of Indian money market. Bank Nationalization and its achievements. Banking and

insurance sector reforms since 1991. Capital market and its reforms since 1991, Labour regulations Fiscal Policy; trade and investment policy; Financial and Monetary Policies

**5. Policies and Performance in Agriculture (Lectures:10)**

Growth: productivity, agrarian structure and technology; capital formation; trade; pricing and procurement

**6. Policies and Performance in Industry (Lectures: 10)**

Growth; productivity; diversification; small scale industries; public sector; competition policy; foreign investment

**Reference Books**

Dutt and Sundaram (latest Ed.) "Indian Economy"

Mishr and Puri (latest ed.) "Indian Economy"

Bhagwati and Chakraborty "Contributions to Indian Economic Analysis"

Dhingra, I.C "Indian Economy"

Bhagwati and Chakraborty "Contributions to Indian Economic Analysis"

Chakraborty "Development Planning: The Indian Experience"

Wadhva "Some Problems of India's Economic Policy"

Lucas and Papanek "Indian Economy"

Jalan "Indian Economic Crisis"

Nayyar "On Economic Liberalization"

Kapila "Indian Economy"

Rakesh Mohan, 2008, —Growth Record of Indian Economy: 1950-2008. A Story of Sustained Savings and Investment, Economic and Political Weekly, May.

S.L. Shetty, 2007, —India's Savings Performance since the Advent of Planning, in

K.L. Krishna and A. Vaidyanathan, editors, Institutions and Markets in India's Development.

Himanshu, 2010, Towards New Poverty Lines for India, Economic and Political Weekly, January.

Jean Dreze and Angus Deaton, 2009, Food and Nutrition in India: Facts and Interpretations, Economic and Political Weekly, February.

Himanshu. 2011, —Employment Trends in India: A Re-examination, Economic and Political Weekly, September.

Rama Baru et al, 2010, —Inequities in Access to Health Services in India: Caste, Class and Region, Economic and Political Weekly, September.

Geeta G. Kingdon, 2007, —The Progress of School Education in India, Oxford Review of Economic Policy

J.B.G. Tilak, 2007, —Post Elementary Education, Poverty and Development in India, International Journal of Educational Development.

T. Dyson, 2008, —India's Demographic Transition and its Consequences for Development in Uma Kapila, editor, Indian Economy Since Independence, 19th edition, Academic Foundation.

KaushikBasu, 2009, —China and India: Idiosyncratic Paths to High Growth, Economic and Political Weekly, September.

K. James, 2008, —Glorifying Malthus: Current Debate on Demographic Dividend in India, Economic and Political Weekly, June.

Reetika Khera, 2011, —India's Public Distribution System: Utilisation and Impact Journal of Development Studies.

Aniruddha Krishna and DevendraBajpai, 2011, —Lineal Spread and Radial Dissipation: Experiencing Growth in Rural India, 1992-2005, Economic and Political Weekly, September.

KaushikBasu and A. Maertens, Eds, 2013, The New Oxford Companion to Economics, Oxford University Press

## CC9

### Statistical Methods – II

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

#### **1. Set Theory**

**(Lecture: 05)**

Set Notations – Universal Set – Subsets – Null Set – Finite & Infinite Sets – Convex Sets – - Convex Sets - Relationships between Sets – Basic Set Operations. Applications: Consumer Preference & Budget in terms of Sets

#### **2. Probability Theory**

**(Lecture: 12)**

Random Experiments – Sample or Outcome Spaces (Discrete and Continuous case) – Events and their Algebra – 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 related concepts:**

**(Lecture: 04)**

Random Variables – Probability Mass and Density Functions - Expectation and Variance of Random Variables (for Random Sampling With and Without replacement)

#### **4. Univariate Probability Distributions:**

**(Lecture: 10)**

Uniform, Binomial, Poisson, Normal Distributions – Mean, Variance. Moment Generating Functions.

#### **5. Sampling Theory and Sampling Distributions:**

**(Lecture: 15)**

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, Stratified Sampling (Definition and Purpose), Sampling vs Non sampling error, Chi-Square Distribution, Student's t Distribution, F-Distribution (definition and importance, properties and uses only)

#### **7. Estimation:**

**(Lecture: 14)**

Desirable Properties of estimators – Unbiasedness, Minimum Variance – Simple Methods of Point Estimation – Maximum Likelihood. Estimators and their properties – Maximum Likelihood estimation of the parameter of Binomial, Poisson and Normal Distribution and estimation of population parameters using method of moments.

#### **8. Testing of Hypothesis:**

**(Lecture: 10)**

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:**

Nagar and Das – Basic Statistics

Mathai & Rathie – Probability and Statistics

Goon, Gupta and Dasgupta – Fundamentals of Statistics, Vol. I & Vol. II

R Spiegel and L.J. Stephen. Statistics, Schaum Series

Sheldon Ross: A First Course in Probability, 9<sup>th</sup> Edn. Pearson

E. Rukman gadachari: Probability and Statistics–Pearson

**CC10**  
**Development Economics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Economic Development (20 Lectures)**

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. Development and Underdevelopment as a Historical Process (12 Lectures)**

Dependency theory of Baran – Frank’s Theory of colonial exploitation – Merchant Capital in shaping underdevelopment (Kay) – Emmanuel’s theory of unequal exchange.

**3. Persistence of Underdevelopment and Way to Develop (20 Lectures)**

Characteristics of underdevelopment – Obstacles to underdevelopment – Trap Models – Vicious circle of poverty – Critical minimum effort thesis – Low level equilibrium trap – Process of cumulative causation – Concept of surplus labour – Surplus labour as potential saving – Economic development with unlimited supplies of labour (Lewis Model).

**4. Development Strategy (8 Lectures)**

Capital intensive Vs Labour intensive technique – Choice of technique in a labour surplus economy – Sustainable development.

**5. Migration and Development – Haris-Todaro Model (5 Lectures)**

**6. Poverty and Inequality (5 Lectures)**

Absolute and Relative Poverty- poverty line - poverty measurement: Head Count Ratio, Income Gap Approach- HPI- Inequality axioms- Common Measures of Inequality-Gini index.

**References:**

Thirlwall: Growth and Development

Debraj Roy: Development Economics

Meier(ed): Leading Issues in Economic Development

K. Basu: Analytical Development Economics, OUP  
Debesh Bhattacharya: Political Economy of Development  
Pearce and Turner: Economics of Natural Resources and the Environment  
Abhijit Banerjee, Roland Benabou and Dilip Mookerjee: Understanding Poverty, OUP, 2006  
Todaro and Smith: Economic Development, Pearson Education, 2009

**SKILL ENHANCEMENT COURSE (SEC) IN SEMESTER- IV  
SEC2**

**Basic Computer Applications**

**Full Marks: 50**

**Credit: 2**

**Lectures: 15 + Practical: 15**

*It is a Lab Based Practical Paper. The student shall learn the operations through Lectures, Hands-on Practical Training followed by practical tests.*

- 1. File Creation and Management System** (3 L + 2 P)  
The File Tree; File Naming Conventions;
- 2. Word Processing** (2L + 3P)  
Basic features of Text formatting; Creating documents; Heading Styles; Creating Reference Lists
- 3. Spread Sheet Solutions** (7L + 7P)  
Basic features of Spreadsheets; Data entry, Mathematical Functions, Financial functions, Statistical Functions, Creating simple Line, Bar and Pie charts;
- 4. Presentations** (3L + 3P)  
Creating Presentations; Pasting Charts etc in Presentations; Exporting Presentations as PDF

**References:**

Data Analysis Using Microsoft Excel – Ash Narayan Sah Excel Books India

Excel 2010 For Dummies Colin Banfield, John Walkenbach

Bhounik Sankar, Principles of Econometrics: A Modern Approach Using Eviews, OUP

**OR**

**SEC 2**

**INDIAN STOCK MARKET TRADING**

**Full Marks: 50**

**Credit: 2**

**Lectures: 30**

- 1. AN OVERVIEW OF SHARE MARKET** (Lectures:9)

MARKET SEGMENTS: *Primary Market, Secondary Market*. KEY INDICATORS OF STOCK MARKET: *Index, Market Capitalisation, Turnover*. PARTICIPANTS - Investors: *Hedgers, Speculators, Arbitraders*, Stock Brokers: *Eligibility*. Members: *Eligibility Criteria for Membership, Suspension & Expulsion of Membership*, Sub-brokers: *Eligibility, Registration, Cancellation of Registration*. (Examples from NSE).

## 2. STOCK TRADING

(Lectures 15)

BROKER-CLIENTS RELATIONS: *Client Registration Documents, Unique Client Code, Margins from the Clients, Execution of Orders, Contract Note, Payments/Delivery of Securities to the Clients, Brokerage, Segregation of Bank Accounts, Segregation of Demat Accounts*. SUB-BROKER-CLIENTS RELATIONS: *Relationship with clients, Contract notes, Securities/ Funds*. NEAT SYSTEM: *Order Types, Entering Orders, Order Modification, Order Cancellation, Order Matching, Trade Cancellation*. MARKET PHASES. (Examples from NSE).

## 3. CLEARING AND SETTLEMENT

(Lectures 6)

Terminologies Used In Clearing and Settlement Process. Transaction Cycle. Settlement Agencies. Clearing And Settlement Process. Securities And Funds Settlement. Shortages Handling. Risks in Settlement.

### References and suggested readings

1. [www.nseindia.com](http://www.nseindia.com)
2. [www.sebi.gov.in](http://www.sebi.gov.in)
3. Rules, Regulations and Byelaws of NSEIL & NSCCL
4. Indian Securities Market: A Review - NSEIL publication
5. NSE Newsletter – NSEIL publication
6. L. M. Bhole and J. Mahukud: Financial Institutions and Markets, Tata McGraw Hill, 5th edition, 2011.
7. Larry Harris: Trading and Exchanges –Market Microstructure for practitioners, OUP
8. Modules for NCFM, NSE.
9. R. Nangalia and S. Kothari: Basics of Stock Market, Flame Investment Lab.

**OR**

**SEC2**

### **Business Plan Formulation and Appraisal**

**Full Marks: 50**

**Credit: 2**

**Lectures: 30**

1. Identification of business opportunity: Idea of a good business opportunity, Business opportunities in India, The RAMP( Return , Advantage , Market and Potential) model for business opportunity evaluation. (Lectures -6)

2. Purpose of a business plan , contents of a business plan: Marketing plan, Operations plan, Financial plan, Presenting a business plan **(Lectures -6)**
3. Procedure for setting up a business project: Meaning of project , project identification and selection, project report , its significance and contents, formulation of a project report **(Lectures-6)**
4. Project evaluation and selection: The payback period, Net present value (NPV), Internal rate of return ( IRR), Benefit-cost ratio **(Lectures-6)**
5. Project financing: Equity financing , Angel Financing , Debt financing , other sources **(Lectures 6)**

**References:**

S.S Khanka--- Entrepreneurial Development, S.Chand & Company Ltd

Poornima .M. Charantimath – Entrepreneurship Development and small business enterprises, Pearson

Prasanna Chandra: Project Preparation, Appraisal and Implementation; Tata McGraw Hill, New Delhi, 7<sup>th</sup> edition, 2009

Maylor : Project Management; Pearson Education (FT), 3rd edition, 2005

Desai : Project management and entrepreneurship; Himalaya Publishing House, 1st edition, 2002

Users’ manual for MS Project, Microsoft

Cost benefit analysis: theory and practice , Dasgupta and Pearce

**Semester – V**

**CC11**

**International Economics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Trade : Ideas and Concepts**

**L-10**

- What is International Economics all about?-Meaning and scope of International Economics- Arbitrage as basis and direction of International Trade – difference between international trade and intranational trade – Mercantilist view.

**2. Pure Theory of Trade:**

**L-25**

- Absolute advantage theory, Ricardian Theory of Trade in two-country two-commodity framework-Multi-commodity and two-country framework-Complete Specialization and indeterminacy of TOT-Limitation of Ricardian Trade Theorem.
- Factor Endowment and Trade: Hecksher-Ohlin Theorem of Trade using Price and Physical definition-Factor Price Equalization Theorem-Rybszynsky Theorem- Stolper Samuelson Theorem-Demand Bias and H-O Theorem, Factor Intensity Reversal and H-O Theorem-Leontief Paradox
- International Equilibrium: Derivation of Offer Curve using TIC and Trade Triangle-TOT-Equilibrium with TIC-Stability of Offer Curve- Offer Curve under constant Opportunity Cost Condition
- Gains from Trade: Concept (and significance of shape) of PPF-Production and Exchange Gain-Exceptional cases where there is only one of the gains or even no gain.

### **3. Trade Policy:**

**L-15**

- Effect of imposition of Tariff in partial and general equilibrium framework for small and large country
- Quota and its comparison with Tariff.
- Effect of Export Subsidy in partial equilibrium framework for small country
- Voluntary Export Restraint (Concept only).

### **4. Balance of Payment:**

**L-20**

Balance of Payment Accounting-Autonomous and Accommodating transaction-Basic identities in BoP and NI Accounting

National Income and Current Account Balance- Income Approach-Expenditure and Foreign Trade Multiplier with and without International transmission Effect- transfer Problem

International Currency System and Exchange Rate: Gold Standard, Bretton Woods system and Post Bretton Wood Era (concept only)-Demand and Supply of foreign exchange-Exchange rate under Clean Float-Intervention in Foreign Exchange Market (Dirty or managed float and fixed exchange rate)

Pegged Exchange Rate and BoP: Expenditure Switching Policy (Elasticity Approach) and Expenditure Reducing Policy (Absorption Approach)-Synthesis Approach.

#### References:

Soderstein. Bo : International Economics, 2<sup>nd</sup> Edition

Kennen,P : International Economics

Caves, Frandel and Jones: World Trade and Payments.

Krugman and Obstfeld: International Economics- Theory and policy, 8<sup>th</sup> Edn Pearson

Rajat Acharyya: International Economics - - Oxford University Press

**CC12**

**Money & Banking**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Introduction**

**(L : 05)**

Relevance of study of Money & Banking, Evolution of Money, Development of Banking System, Understanding rate of interest.

**2. Money**

**(L : 10)**

Concept, Functions, Kinds, Measurement of Money, Theories of determination of Money supply.

**3. Financial Institutions, Markets, Instruments and Financial Innovations (L: 20)**

(a) Money Market: Organization, structure and reforms in India, Interaction of Money Supply & Demand

(b) Role of Financial markets & Institutions : Problem of asymmetric information – adverse selection & moral hazard, Financial Crises

(c) Financial Instruments, Call Money, Commercial Paper, Certificate of Deposit, Treasury Bill, Repo, Commercial Bill

**4. Interest rates**

**(L: 8)**

Determination: Sources of interest rate differentials, theories of term structure of interest rates, interest rates in India

**5. Banking System**

**(L: 12)**

(a) Financial Intermediation

(b) Business of Banking- Balance Sheet & portfolio management

(c) Indian Banking System : Changing role & Structure

(d) Banking Sector Reforms

**6. Central Banking & Monetary Policy**

**(L: 15)**

(a) Functions, Balance Sheet, Goals, Targets, Monetary Policy Transmission and mechanism

(b) Central Bank Strategy: Exchange Rates

(c) Indicators and instruments of monetary Control; monetary management in an open Economy

(d) Current Monetary Policy of India

**References:**

1. F.S. Mishkim, The Economics of Money, Banking and Financial Markets, Prentice Hall, 2007
2. F.S. Mishkim and S.G. Eakins, Financial Markets and Institutions, Pearson Education, 6<sup>th</sup> Edition, 2009
3. L.M. Bhole and J. Mahakud, Financial Institutions and Markets, Tata McGrawHill, 5<sup>th</sup> edition, 2011
4. F.J. Fabozzi, F. Modigliani, F.J. Jones, M.G. Ferri, Foundations of Financial Markets and Institutions, Pearson Education, 3<sup>rd</sup> edition, 2009
5. M.Y. Khan, Indian Financial System, Tata McGrawHill, 7<sup>th</sup> edition, 2011
6. Various latest issues of R.B.I. Bulletins, Annual Reports, Reports on Currency and Finance and Reports of the Working Group of Reserve Bank Of India, IMF Staff Papers

## **Discipline Specific Elective Papers in Semester- V**

**DSE1**

### **Rural Development**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

#### **1. Rural Development - Background & Concept:**

**L-15**

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:**

**L-15**

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:**

**L-15**

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:**

**L-10**

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

#### **5. Rural Development Approaches In Other Selected Countries**

**L-15**

Rural Developments Experiments and Experiences from the following countries:

Asian Countries – Bangladesh/ China

Latin American Countries – Brazil/ Mexico

#### **Reference books**

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 & Anjalina: *The Indian Rural Problems*

Battacharya S.N.: *Rural Industrialization in India*

**OR**

**DSE 1**

**Selected Features of West Bengal Economy**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Early Economic History of Bengal:**

**L-8**

Economic history of the colonial period- -Entrepreneurship in Bengal in the 19<sup>th</sup> century- Deindustrialization and Drain of Resources- Economic consequences of partition- the case of Jute and Textile industry.

**2. Growth and Structural Transformation-**

**L-10**

Trends in the growth of State Domestic Product (SDP) - Trends in Sectoral contribution in SDP- Trends in per capita SDP- A comparison between Indian and West Bengal (All trends are from 1980's and mainly decadal trends using NSSO, SDP and Census Data).

**3. Employment Structure-**

**L-10**

Occupational Structure – trends in sectoral distribution of workforce- gender segregation of employment- A comparison with Indian and West Bengal- farm and non-farm employment- nature, extent and pattern of Rural Non-farm employment in West Bengal- marginalization and informalization of employment - Service sector expansion-causes and consequences(All trends are from 1980's and mainly decadal trends using Census and NSSO Data).

**4. Rural Livelihood-**

**L-10**

Agricultural Growth and trends in decadal growth rates since 1980's –cropping pattern- crop diversification-agricultural- mechanization-problems- Problems and prospects of small-scale and cottage industries- fishery and diary development- - Micro-credit and Self-Help Group- Performance of MGNREGS in West Bengal.

**5. Social Sector and Human Development-**

**L-12**

Education-Elementary education in West Bengal-Enrollment and Drop-out- Infrastructure of primary education- Health- Health Status in West Bengal- child mortality and maternal mortality-A comparison with India, Kerala and Tamil Nadu- Human Development- concept, measurement and inter-district variation.

**6. Infrastructure:**

**L-12**

Power generation and Rural Electrification-Growth of Banks in West Bengal- Bank Account and the extent of financial inclusion in West Bengal -Growth of Deposit, Credit-deposit ratio of commercial banks - Regional rural banks- Irrigation, Agro-marketing and Storage.

**7. Environment and Climate Change:**

**L-8**

Land Use Pattern- Forest and common property Resources -Joint Forest Management in West Bengal- Pollution and health risks- Climate Change- Environmental Education.

**References:**

State Development Report, 2010, West Bengal, Planning Commission, Government of India

West Bengal Human Development Report, 2004, Oxford University Press

Sumit Sarkar(1973): The Swedeshi Movement in Bengal, People's Publishing House, New Delhi

N.K. Sinha(1962): Economic History of Bengal from Plassey to the Permanent Settlement.

Ratan Khasnabis, 2008,"The Economy of West Bengal", Economic and Political Weekly (December 27)

A. Raychaudhuri & Tuhin Das (ed.).2005. West Bengal Economy: Some Contemporary issues, Allied Publishers

B Rogaly, B Barbara Hariss-White and S Bose(1999): Sonar Bangla? Agricultural Growth and Agrarian Change in West Bengal and Bangladesh. Sage Publications.

Suvobrata Sarkar(2013):, Bengali Entrepreneurs and Western Technology in the Nineteenth Century: A Social Perspectives', Indian Journal of History of Science, Vol. 48, No. 3, September , pp. 447-75.

**DES 2**

**Environmental Economics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Introduction**

**(L- 10)**

- Interaction between man and nature, Key environmental issues and problems, Link between economy and environment: basic ideas,

**2. Externalities**

**(L- 18)**

- Pareto optimality and market failure in the presence of externalities; types of externalities – effects - local, national and global, Environmental Assessment -Measurement issues of externalities, Cost-Benefit analysis (Concept), internalization of externalities

**3. Property Right**

**(L- 10)**

Concept of property rights, the Coase theorem. Distinction among public, private, open access and common property resources

**4. Environmental Policy**

**(L- 12)**

- Overview, Pigouvian taxes and effluent fees, tradable permits, choice between taxes and quotas, optimum pollution control model

**5. International Environmental Problems (L- 10)**

- Trans-boundary environmental problems; economics of climate change; trade and environment.

**6. Institutions (L-5)**

- Pollution Control Institutions/Organizations, - local-national-International level, UNEP, IPCC, CPCB, Green Bench,

**7. Sustainable Development (L- 5)**

- Concepts, rules and measurement.

**References:**

1. Charles Kolstad, Intermediate Environmental Economics, Oxford University Press, 2<sup>nd</sup> 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, 3<sup>rd</sup> edition, 2003
4. Pearce and Turner: Economics of natural resource and environment, Prentice Hall
5. Rabindranath Bhattacharyya: Environmental Economics, Oxford.

**OR**

**DSE 2**

**Public Economics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Introduction to instruments and objective of Public Finance L-15**

Public goods and private goods; The three bases of public finance (stability etc). Externalities and Market Failure; Coase Theorem; Public Economics and Public Finance; Provisioning of Public Goods and Public Finance; Economy-Environment Interfaces

**2. Principles of Taxation L-25**

Ability and benefit approaches – voluntary exchange model – degree of progression bases of taxation – income, expenditure wealth and commodities – income versus expenditure tax – shifting and incidence of taxes. Burden of Taxes; Effects of taxation on income distribution, work efforts and on savings; the Laffer curve; Optimal Taxation, introduction of GST & its basic concept and idea

**3. Public Expenditure and Public Debt L-15**

Classification of Public Expenditure; Government Budget and its Types; Meaning of Public Debt; Sources of Public Borrowings: internal and external borrowing; Effects of Public Debt.

**4. Compensatory Fiscal Policy L-15**

Effects of changes in govt. expenditure and taxation – balanced budget multiplier – public debt and its economic effects – anti-inflationary fiscal policy, Fiscal Federalism in India

### Reference Book

- A.B. Atkinson and J. E. Stiglitz, Lectures on Public Economics, Mc Graw-Hill Inc.,US.
- R .A. Musgrave and P. B. Musgrave, Public Finance in Theory & Practice, Mc Graw-Hill Publications 5<sup>th</sup> Edition
- J. F. Due and A. F. Friedlander. Government Finance- Economics of Public Sector, AITBS Publishers and Distributors
- J. Hindriks and G.D. Myles. Intermediate Public Economics. The MIT Press.
- J. E. Stiglitz. Economics of Public Sector. W.W. Norton and Company, 3<sup>rd</sup> Edition
- Amaresh Bagchi (ed). Readings in Public Finance. OUP.
- R. J. Chelliah(ed). Towards Sustainable Growth. OUP.
- A Ghosh and C Ghosh. Public Finance. Prentice and Hall India Learning Private Limited, 2<sup>nd</sup> Revised Edition.

## Semester – VI

CC13

### Basic Econometrics

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

#### **1. Nature and Scope of Econometrics**

**5 Lectures**

#### **2. Simple Linear Regression Model: Two Variable Cases**

**20 Lectures**

Estimation of model by method of ordinary least squares; properties of estimators; goodness of fit; tests of hypotheses; scaling and units of measurement; confidence intervals; Gauss-Markov theorem; forecasting.

#### **3. Multiple Linear Regression Model (in 3 variable setup)**

**20 Lectures**

Estimation of parameters; properties of OLS estimators; goodness of fit - R<sup>2</sup> and adjusted R<sup>2</sup>; partial regression coefficients; testing hypotheses – individual and joint; functional forms of regression models; qualitative (dummy) independent variables

#### **4. Violations of Classical Assumptions: Sources, Consequences, Detection**

**15 Lectures**

Multicollinearity; heteroscedasticity; and Autocorrelation and their detection– VIF, Durbin-Watson Test, Glesjer Test, Goldfeld-Quandt Test

#### **5. Specification Analysis**

**10 Lectures**

Omission of a relevant variable; inclusion of irrelevant variable; Sources and simple indicator of specification problems

### Readings

1. John E. Freund, *Mathematical Statistics*, Prentice Hall, 1992.
2. Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall, 2011.
3. D. N. Gujarati and D.C. Porter, *Essentials of Econometrics*, McGraw Hill, 4<sup>th</sup> edition, International Edition, 2009.

4. Christopher Dougherty, *Introduction to Econometrics*, Oxford University Press, 3<sup>rd</sup> edition, Indian edition, 2007.
5. Maddala, G.S. *Introduction to Econometrics*, John Wiley & Sons.
6. Jan Kmenta, *Elements of Econometrics*, Indian Reprint, Khosla Publishing House, 2nd Edition, 2008.
7. Koutsoyiannis A, *Theory of Econometrics*, ELBS with Macmillan.

**CC14**  
**Field Survey and Project Report**

**Full Marks: 75**

**Credit: 6**

**Lectures: 30 + Practical: 40**

**(Project Report: 50 Marks)**  
**(Viva-Voce: 25 Marks)**

This is a Project Paper where the Students will make a Field Visit to collect Primary information followed by analysis of data and writing a project report with support from the faculty members. Ideally there should be 10 classroom lectures to prepare the students for Field Survey and to train them for Report Writing. Remaining should be Field Visits and Report Writing.

The project report should ideally cover the following areas:

Introduction – Motivations – Literature Review – Objectives – Methodology –  
Results– Policy Suggestion – Bibliography

**Project to be done on a small Primary sample of size 30 or more observations.**

Proposed Guidelines

1. Each college shall arrange for a Field Visit for collection of data by the students
2. Each student will prepare a term paper between 4000-5000 words (excluding charts, diagrams, tables etc.).
3. The selection of the topic will be from the subjects covered in the undergraduate economics honours syllabus.
4. The term paper will be submitted by the candidates to the respective colleges at least a fortnight before the viva-voce examination which will be held at the respective college centres.
5. The board of examiners will consist of one internal and one external examiner (from some other college on a one-on-one basis).
6. The marks division for the term paper will be as follows: 50 for the written report and 25 for viva voce.
7. The marks of the written paper will be the average given by the internal and external examiners.

8. However, the viva-voce will be conducted and the marks awarded by the external examiner only.

## Discipline Specific Elective Papers in Semester -VI

### DSE 3

### Social Economics

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

- 1. Introduction (L- 12)**  
Components of Social Economics, Evolution of the concept of Human Development, Role of Health and Education in Human Development, Poverty alleviation, health and education outcomes and their relationship with economic development, Human Development Index.
- 2. Microeconomic Foundations of Health Economics (L- 6)**  
Demand for health; uncertainty and health insurance market; market failure and rationale for public intervention;
- 3. Evaluation of Health Programs (L- 6)**  
Costing, cost effectiveness and cost-benefit analysis; burden of disease.  
Health outcomes; health systems; health financing, Gender gap in health issues
- 4. Education: Investment in Human Capital and Indian experience (L- 24)**  
Rate of return to education: private and social; quality of education; signalling or human capital; literacy and drop- out rate. Gender differential in educational achievement
- 5. Meaning of gender inequality and major gender gap (L- 16)**  
Key definition, key pattern of gender gaps, Endangering development theories -- Gender development index and gender empowerment index , Mainstreaming gender into development policies, gender differential in intra-household resource allocation.
- 6. Women as decision making unit (L- 6)**  
Factors affecting decision making by women, property right, access to and control over resources

### **References**

1. William, Jack, Principles of Health Economics for Developing Countries, World Bank Institute Development Studies, 1999.

2. World Development Report, Investing in Health, The World Bank, 1993.
3. Ronald G., Ehrenberg and Robert S., Smith, Modern Labour Economics: Theory and Public Policy, Addison Wesley, 2005.
4. Krishnaraj M, .R.M Sudarshan and A Sheriff, Gender, Population and Development.
5. Human Development Reports: various issues

**OR**

**DSE 3**

**Political Economy**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

**1. Classical Economic Thoughts:**

**L30**

- a) Economic thoughts of Adam Smith, Ricardo, and Marx; b) Concept of labour theory of value: Classical political approach of Smith, Ricardo and Marx; criticism; c) Land (Theory of Rent): Classical political approach of Smith, Ricardo and Marx; criticism; Economic thoughts of Gandhi, Nehru, Gokhle, Netaji, and Rabindranath; criticism.

**2. Political System:**

**L15**

- a) Basic features and functioning of the Physiocracy, Mercantilism, Feudalism, Capitalism and Socialism. b) *Social Transition*: Feudalism to Capitalism; Capitalism to Socialism; b) Stages of Growth: Marx & Rostow

**3. Analysing the social changes:**

**L20**

The method of historical materialism; a) Marxian theory of value, Quantitative and qualitative aspect of value; Components of value, Value of Constant and variable capital; Surplus value, Circuit of capital, surplus value and organic composition of capital Commodity fetishism; the reserve army of labour b) Simple reproduction. The law of falling rate of profit, Theories of crises: The under consumption crises, realization crises and disproportionality crises. c) Emergence of socialism; social mode of extraction of surplus value; socialist pricing.

- 4. The state and the economy** – contestation and mutual interdependence, the state as an arena of conflict; imperialism - the basic foundations. **L5**

**References:**

1. J.Gurley. The materialist conception of history
2. O. lange Political Economy, 2<sup>nd</sup> edition
3. E.K. Hunt History of Economic Thought, M.E. Sharp Indian Edition
4. Irfan Habib 1995 “Capitalism in history” Social Scientist vol 23:15-23



## **References:**

1. S.S Khanka--- Entrepreneurial Development, S.Chand & Company Ltd
2. Bill Bolton and John Thompson ---- Entrepreneurs: Talent, Temperament and Technique, Butterworth and Heinemann.
3. David .H Holt---Entrepreneurship New Venture Creation
4. N.D.Vohra- Quantitative Techniques in Management , Tata Mcgraw-Hill
5. Sharma- Operations Research, Macmillan India Ltd.
6. Poornima M. Charantimath: Entrepreneurship Development and Small Business Enterprises (2<sup>nd</sup> Edition) Pearson.
- 7.

## **OR**

### **DSE 4 Financial Economics**

**Full Marks: 75**

**Credit: 6**

**Lectures: 70**

#### **1. Introduction:**

**L-9**

Evolution of limited companies, Time Value of money, Basic concepts of financial decision areas, Concepts of Money and Capital markets, Concepts of risk and returns.

#### **2. Corporate Finance**

**L-10**

Concepts of Capital structure and Cost of capital; Concept of optimal capital structure, and Theories of capital structure ( NI approach, NOI approach and M-M approach ).

#### **3. Investment Theory and Portfolio Analysis**

##### **a. Deterministic cash-flow streams**

**L-12**

Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunization; the term structure of interest rates; yield curves; spot rates and forward rates.

##### **b. Single-period random cash flows**

**L-12**

Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem.

##### **c. CAPM**

**L-12**

The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment analysis and as a pricing formula.

#### **4. Options and Derivatives**

**L-15**

Introduction to derivatives, forward and futures contracts; options; other derivatives; Options Terminology; Option pay off; Option market players and option Trading; Derivative market regulatory framework in India.

#### **Readings:**

1. David G. Luenberger, Investment Science, Oxford University Press, USA, 1997.
2. Hull, John C., Options, Futures and Other Derivatives, Pearson Education, 6<sup>th</sup> edition, 2005.
3. Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri, Financial Theory and Corporate Policy, Prentice Hall, 4<sup>th</sup> edition, 2003.
4. Richard A. Brealey and Stewart C. Myers, Principles of Corporate Finance, McGraw-Hill, 7<sup>th</sup> edition, 2002.
5. Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan, Fundamentals of Corporate Finance. McGraw-Hill, 7<sup>th</sup> edition, 2005.
6. Burton G. Malkiel, A Random Walk Down Wall Street, W.W. Norton & Company, 2003.
7. William Sharpe, Gordon Alexander and Jeffery Bailey, Investments, Prentice Hall of India, 6<sup>th</sup> edition, 2003.
8. E. J. Elton, M. J. Gruber, S. J. Brown, W. N. Goetzmann, Modern Portfolio Theory and Investment Analysis (8th edition); John Wiley & Sons
9. Berk, J. and DeMarzo, P. (2011) *Corporate Finance*. Global Edition. Second Edition. Boston: Prentice Hall
10. Brealey, R.A., Myers, S.C. and Marcus, A.J. (2012) *Fundamentals of Corporate Finance*. International Edition. 7th Edition. New York: McGraw-Hill
11. Chandra, P., Investment Management, Tata McGraw-Hill
12. Chandra, P., Financial Management, Tata McGraw-Hill

13. Pandey, I.M., Financial Management, Vikas Publishing

14. Bodie, Z., Kane, A., Marcus, A. J., Mahanty, P., Investments, Tata McGraw-Hill

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