COURSES OF STUDIES

FOR

MASTER DEGREE COURSE

IN

ARTS

M.A (ECONOMICS)

Choice Based Credit System(CBCS)

First & Second Semester Examination – 2021-22

Third & Fourth Semester Examination – 2022-23

GOVERNMENT AUTONOMOUS COLLEGE,
PHULBANI, KANDHAMAL

SYLLABI FOR CBCS COURSE

SEMESTER	CORE COURSE (CC)	CORE ELECTIVE (CE)
I	CC – 1.1	-
	CC – 1.2	-
	CC – 1.3	-
	CC – 1.4	-
	CC – 1.5	-
II	CC – 2.1	-
	CC – 2.2	-
	CC – 2.3	-
	CC – 2.4	-
	CC – 2.5 (P)	-
III	CC – 3.1	-
	CC – 3.2	-
	CC-3.3	-
	-	CE – 3.4
IV	CC – 4.1	-
	-	CE-4.2
	-	CE – 4.3
	-	CE – 4.4 (Dissertation)

YEAR & SEMESTER-WISE PAPERS & CREDITS AT A GLANCE

Year	Paper Code	Title of the paper	Total Marks (MS+ES)	No. of Credits
FIRST YEAR	**FIRST SEMESTER**		**500**	**30**
	CC– 1.1	Microeconomic Theory - I	20+80=100	06
	CC– 1.2	Macro Economic Theory – I	20+80=100	06
	CC– 1.3	International Economics – I	20+80=100	06
	CC– 1.4	Mathematical Techniques for Economics – I	20+80=100	06
	CC– 1.5	Statistical Techniques for Economics	20+80=100	06
	SECOND SEMESTER		**500**	**30**
	CC– 2.1	Micro Economics Theory - II	20+80=100	06
	CC– 2.2	Macro Economic Theory – II	20+80=100	06
	CC– 2.3	International Economics – II	20+80=100	06
	CC– 2.4	Mathematical Techniques for Economics – II	20+80=100	06
	CC– 2.5	Computer Applications in Economics (Practical)	100	06
SECOND YEAR	**THIRD SEMESTER**		**400**	**24**
	CC– 3.1	Public Economics	20+80=100	06
	CC– 3.2	Development Economics	20+80=100	06
	CC– 3.3	Environmental Economics	20+80=100	06
	CE– 3.4A	Basic Econometrics	20+80=100	06
	CE– 3.4B	Financial Economics	20+80=100	06
	FOURTH SEMESTER		**400**	**24**
	CC– 4.1	Indian Economic Problems and Policy	20+80=100	06
	CE– 4.2A	Applied Economics	20+80=100	06
	CE– 4.2B	International Finance	20+80=100	06
	CE– 4.3	Research Methodology	20+80=100	06
	CE– 4.4	Dissertation	100	06

CC– **Core Courses,** CE– **Core Elective**

Total Papers=18, Total Marks=1800, Total Credits=108

SEMESTER – I

CC- 1.1 : MICROECONOMIC THEORY- I

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Theory of Consumer's Behaviour and Demand Analysis–I

The preference ordering, the feasible set, consumption decision and comparative statics of consumer behaviour; Duality-the expenditure function, indirect utility function, Roy's identity and Slutsky equation; Theory of Revealed Preference, Preference Hypothesis: Strong Ordering and Weak Ordering; Consumer Surplus- Measurement and Applications

UNIT– II : Theory of Consumer's Behaviour and Demand Analysis–II

Modern Utility Analysis: The Bernoulli Hypothesis, The Neumann Morgenstern Theorem, The Friedman's Savage Hypothesis, Market for lemons, Asymmetric Information and Market failure, Adverse Selection, Moral hazards

UNIT– III : Theory of Production

Isoquants, The Technical Substitution and Elasticity of Substitution; Returns to a Variable Factor and Two Variable Factors; Producer's equilibrium; Linear Homogeneous production function, Homothetic functions, the C-D and CES Production Functions; Technical Progress and Production Function, Optimum Factor combination

UNIT– IV : Theory of Costs and Revenue

Cost Theories: U- Shaped SAC and LAC curves, L-shaped LAC curve, The Learning Curve; Algebraic Forms of Cost Functions- Cubic, Quadratic, Linear Cost Functions; Derivation of Cost Functions from Production Functions

Revenue: Derivation of AR and MR from TR; Price Elasticity, AR, MR, TR and Demand

UNIT– V : Price and output determination under perfect competition

Price and output Determination: Perfect competition-Short run & long run equilibrium of the firm and industry, stability of equilibrium

Reference Books :

1. Baumol, W. J. (1973): Economic Theory and Operations Analysis (3rd Edn.), New Delhi, Prentice Hall.
2. Baumol, W.J. (1982): Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
3. Bell, P. W. and Todaro, M. A. (1969): Economic Theory : An Integrated Text, Oxford University Press, Bombay, Delhi, Calcutta and Madras
4. Bilas, R. A. (1971): Micro-Economic Theory (2nd Edn.), New York, McGraw-Hill.
5. Cowell, Frank: Microeconomics-Principles and Analysis, OUP, 2006
6. Friedman, M. (1962): Price Theory – Provisional Text, Ludhiana, Lyall Book Depot.
7. Gravelle, H and R. Rees: Microeconomics, 3rd edition, Pearson
8. Jehle and Reny, Advanced Microeconomic Theory, Pearson India
9. Koutsoyiannis, A. (1979): Modern Microeconomics, 2nd ed., Macmillan Press, London.
10. Kreps, David M (1990): A Course in Microeconomic Theory, Princeton University Press, Princeton.
11. Layard, P.R.G. and A.W. Walters (1978): Microeconomic Theory, McGraw Hill, New York.
12. Maa-colell, Andreu, Michael D. Whinston and Jerry R. Green: Microeconomic Theory, OUP, 1995
13. Pindyck, R and D. Rubinfield (2009): Microeconomics, 7th edition, Pearson publication, New Delhi.
14. Ryan, W.J.L. and Pearce, D.W. (1977): Price Theory, Macmillan India Ltd., Delhi.
15. Sen, A. (1999): Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
16. Stigler, G. (1996): Theory of Price, 4th ed., Prentice Hall of India, New Delhi.
17. Varian, Hal R. : Intermediate Microeconomics-A Modern Approach, 8/e,EWP, 2010
18. Walter Nicholson, Christopher M. Snyder, Microeconomic Theory: Basic Principles and Extensions, Cengage Learning

CC- 1.2 : MACROECONOMIC THEORY – I

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : National Income and Accounting

Circular flow of income two, three & four sector economy. National product and national welfare, different forms of national income accounting; Methods of measurements & problems; Social Accounting: flow of funds accounting, Matrix approach to Social Accounting, Green Accounting; meaning and need, SNA and SEEA Methods and Problems

UNIT– II : Theory of Employment & Income determination.

Classical theory- Full Employment. Equilibrium Model, Keyne's attack, Keyne's theory under employment Equilibrium model. Keynes's theory of Income determination in simple Economy model. Shift in aggregate sending function and multiplier. IS-LM model of macroeconomy

UNIT– III : Consumption function and Theories

Keyne's psychological law of consumption-Implication of Law. Short-run and long-run consumption function. Empirical evidence on consumption function. Income consumption relation. Absolute Income hypothesis, Relative and permanent Income Hypothesis, Life cycle Hypothesis

UNIT– IV : Investment functions.

Marginal Efficiency of Investment &level of investment. Marginal efficiency of capital and investment-short- run and long-run-The accelerator & Investment behaviour-Influence of policy measures on investment- empirical evidence

UNIT– V : Demand for money

Classical, Neo Classical and Keysian approach to demand for money-Quantity theory approach, Keyne's Liquidity preference approach. Derivation of LM curve. Post Keynesian approach to demand for money-Patinkin & Real Balance Effect, Approaches of Baumol, Tobin& Friedman

Reference Books :

1. Macro Economics: Theory & Policy, G. Ackley.
2. Macro Economics: Dorn Busch, Fisher
3. Macro Economics: N.G. Manikiw
4. General theory of employment, Interest & Money: J.M. Keynes (1936)
5. An introduction to Keynesian Economics: Duddly Dillard
6. Macro Economics Analysis: E. Shapiro
7. Macro Economics- An introduction to Keynesian-Neo-Classical controversy: R. Levacic and Arebmann
8. Macro Economics: Theory and policies: Richard, T. Froyen.

CC- 1.3 : INTERNATIONAL ECONOMICS-I

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Theory of International Trade-I

The pure theory of international trade – Theories of absolute advantage, comparative advantage and opportunity costs; Empirical testing of classical theory; Trade equilibrium under constant, increasing and diminishing cost conditions, and imperfect competition

UNIT– II : Theory of International Trade-II

Heckscher–Ohlin theory of trade, Leontief paradox, Theorem of factor price equalization, Stolper–Samuelson theorem, Rybczynski theorem, Kravis and Linder theorem of trade. Technological change and international trade

UNIT– III : Gains from trade

Gains from trade: their measurement and distribution; Concept of terms of trade, their uses and limitations; Hypothesis of secular deterioration of terms of trade, its empirical relevance and policy implications for less developed countries; Terms of trade and income distribution; Trade as an engine of economic growth; Concept and policy implications of immiserising growth

UNIT– IV : Interventions in trade

Theory of interventions: Tariffs, Quotas and Non-tariff barriers; Effects of tariffs under partial and general equilibrium perspectives; Tariff and income distribution; Optimum tariff

UNIT– V : Trade Integrations

Types of regional economic integration; Theory of customs union: Viner's partial equilibrium approach to welfare effects of customs union; General equilibrium analysis of customs union – Lipsey model and Vanek model; Empirical findings and dynamic considerations of customs union and free trade area.

Reference Books :

1. Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge, University Press, Massachusetts.
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing, New York.
3. Chacholiades, M. (1990), International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.
4. Dunn, R.M. and J.H. Mutti (2000), International Economics, Routledge, London.
5. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
6. Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
7. Krugman, P.R. and M. Obstfeld (1994), International Economics: Theory and Policy, Glenview, Foreman.
8. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N. J., New York.
9. Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London.
10. Nichans, J. (1984), International Monetary Economics. John Hopkins University Press, Baltimore.
11. Yeager, L.B. (1976), International Monetary Relations, Theory, History and Policy, Harper and Row, New York.
12. Aggarwala, M.R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
13. Brahmananda, P.R. (1982), The IMF loan and India's Economic Future, Himalaya Publishing House, Bombay.
14. Kenen, P.B. (1995), Economic and Monetary Union in Europe, Cambridge University Press, U.K.
15. Kindleberger, C.P. (1996). A History of Financial Crisis : Manias, Panics and Crashes, (3rd Edition), John Wiley and Sons, New York.

CC- 1.4 : MATHEMATICAL TECHNIQUES FOR ECONOMICS-I

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Number System and Equations

Types of number-real number, complex number, solutions of equations: linear, quadratic equations, simultaneous equations.

UNIT– II : Co-ordinate Geometry

Rectangular Co-ordinate system-ordinate and abscissa, straight lines, parabola, hyperbola and rectangular hyperbola; economic applications-demand functions, supply functions, production functions, cost and revenue functions.

UNIT– III : Differential Calculus

Basic concepts-functions-types-polynomial, logarithmic, exponential, and trigonometric; Limit and Continuity, and differentiability; Derivatives-definitions and rules, simple derivatives, partial derivatives, and total derivatives; Total differential-definition, 2^{nd} order differential, rules of differential; Curvature of functions-convex sets, concave and convex functions, quasi-concave and quasi-convex functions, quadratic form-positive and negative definite quadratic forms

UNIT– IV : Vectors and Matrices

Vector-definition, geometric description, vector operations-addition, scalar multiplication, vector space, linear independence of a set of vectors, basis and rank of vector space; Matrix-definitions and types, operations on matrix-transposition, addition, matrix multiplication, matrix inversion-definition, determinant, Laplace expansion of Determinant, Cramer's rule; solution of a set of homogenous and non-homogeneous equations systems.

UNIT– V : Optimisations

Optimisation-definitions, necessary and sufficient conditions; free optimisations of functions of single and several independent variables; constrained optimization-Lagrange multiplier method; Economic examples-utility maximization, output maximization and cost minimisation.

Reference Books :

1. Chiang, A.C (1986), "Fundamental Methods of Mathematical Economics", McGraw Hill.
2. Allen, R G D : Mathematical Analysis for Economists
3. Yamane, Taro (1975), "Mathematics for Economists", Prentice Hall of India, New Delhi

CC- 1.5 : STATISTICAL TECHNIQUES FOR ECONOMICS

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Set theory and Probability

Set-definitions and types, set operations-union, intersection, difference; Cartesian products; Probability-classical, axiomatic and subjective definitions; permutations and combinations; random variable-definitions, probability distributions-discrete and continuous probability distributions; Mathematical expectations-definition of mean and variance of a random variable in terms of mathematical expectations; conditional probability and Bayes theorem.

UNIT– II

Bivariate distribution- Correlation and regression analysis; correlation coefficient and its properties, Rank correlation coefficient, concept of least squares and lines of regression, standard error of estimate, methods of estimation of non-linear regression equations: parabolic, exponential, geometric, modified exponential, gompertz and logistic relationships.

UNIT– III

Theoretical probability distributions: Binomial, possion and Normal probability distributions, significance, properties, application.

Sampling; concept of an estimator and its sampling distributions, desirable properties of an estimator; Interval estimation: statistical hypothesis-Null and alternative, Type-I & Type-II errors, confidence intervals and hypothesis testing based on z, t, chi-square and F distribution.

UNIT– IV

Index Numbers Definition, construction of index numbers-methods, chain index number

UNIT– V : Time Series

Definition, components-seasonal, cyclical, trends and irregular; plotting of time series on natural and logarithmic scale

Reference Books :

1. Gupta, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
2. Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi. Dowling, E.D. (1986).
3. Gupta, S.C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
4. Gupta, S.P.( ), Statistical Methods, Kothari, C.R.(1992).
5. Monga, G.S. (1971), Mathematical and Statistics for Economists, Vikas Publishing House, New Delhi.
6. Speigel, M.R(1992), "Theory and problems of statistics" McGraw Hill Book Co.
7. W: Allen Webster (1997), Applied Statistics for Business & Economics, An essential version, 3rd edition, McGraw – Hill.
8. K & P: P.H. Karmel & M. Polasek (1978), Applied Statistics for Economists, 4th edition, Pitman.

SEMESTER-II

CC- 2.1 : MICROECONOMIC THEORY - II

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Monopolistic Competition

Monopolistic Competitions: Equilibrium of firm and group with product differentiation and selling costs, Chamberlin's Theory; Excess capacity- Concept and equilibrium, Chamberlin's concept of ideal output and excess capacity, Harrod's and Kaldor's views on excess capacity; Effect of free entry and price competition and basing point price-system.

UNIT– II : Oligopoly

Oligopoly: Non- Collusive Oligopoly; Cournot, Betrand, Edgeworth, Kinked demand curve, Stackelberg's Model, Collusive Oligopoly-Cartels, Price leadership.

Theory of Games – Dominant strategy, Nash equilibrium, Neuman- Morgenstern theory, Prisoner's dilemma, Repeated games and Tit-For- tat strategy.

UNIT– III : Alternatives theory of the firm

Critical evaluation of marginal analysis, Baumol's Sales-revenue maximization Model; Williamson's Model of Management discretion, Marris Model of managerial enterprises, Full cost pricing rule; Bain's limit pricing theory and its recent developments.

UNIT– IV : Theory of Distribution

Marginal Productivity Theory; Euler's Theorem and Product Exhaustion Problem; Modern Theory of Factor Pricing- Wage determination under perfect and imperfect competition and Collective Bargaining; Modern Theory of Rent; Loan able Funds Theory of Interest, Liquidity Preference Theory of Interest; Innovation Theory of Profit: Risk and Uncertainty Theory of Profit.

UNIT– V : General Equilibrium &Theory of Welfare

Pigou's Theory of Welfare Economics; General equilibrium analysis, Pareto's Optimality Conditions, New welfare economics, compensation principle, Grand utility possibility frontier, Theory of second best; Arrow's Impossibility Theorem, Amartya Sen's Social Choice Theory.

Reference Books :

1. Arrow, K. J. & Scitovsky, W.A.: Readings in Welfare Economics, London,
2. Bain J. (1958) Barriers to New Competition, Harvard University Press, Harvard.
3. Baumol, W. J. (1973): Economic Theory and Operations Analysis (3rd Edn.), New Delhi, Prentice Hall.
4. Baumol, W.J. (1982): Economic Theory and Operations Analysis, Prentice Hall of India, New Delhi.
5. Bell, P. W. and Todaro, M. A. (1969) : Economic Theory : An Integrated Text, Oxford University Press, Bombay, Delhi, Calcutta and Madras
6. Bilas, R. A. (1971): Micro-Economic Theory (2nd Edn.), New York, McGraw-Hill.
7. Cowell, Frank: Microeconomics-Principles and Analysis, OUP,2006
8. Friedman, M. (1962): Price Theory – Provisional Text, Ludhiana, Lyall Book Depot.
9. Gravelle, H and R. Rees: Microeconomics, 3rd edition, Pearson
10. Jehle and Reny, Advanced Microeconomic Theory, Pearson India
11. Koutsoyiannis, A. (1979): Modern Microeconomics, 2nd ed., Macmillan Press, London.
12. Kreps, David M (1990): A Course in Microeconomic Theory, Princeton University Press, Princeton.
13. Layard, P.R.G. and A.W. Walters (1978): Microeconomic Theory, McGraw Hill, New York.
14. Maa-colell, Andreu, Michael D. Whinston and Jerry R. Green: Microeconomic Theory, OUP, 1995
15. Pindyck, R and D. Rubinfield (2009): Microeconomics, 7th edition, Pearson publication, New Delhi.
16. Ryan, W.J.L. and Pearce, D.W. (1977): Price Theory, Macmillan India Ltd., Delhi.
17. Sen, A. (1999): Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
18. Stigler, G. (1996): Theory of Price, 4th ed., Prentice Hall of India, New Delhi.
19. Varian, Hal R. : Intermediate Microeconomics-A Modern Approach, 8/e,EWP, 2010
20. Walter Nicholson, Christopher M. Snyder, Microeconomic Theory: Basic Principles and Extensions, Cengage Learning

CC- 2.2 : MACROECONOMIC THEORY- II

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Supply of money

Mechanistic and behavioural model of money supply. High powered money and money multipliers, budget deficits & money supply. RBI approach to money supply open economy, control of money supply.

UNIT– II : Theories of Interest

Neo-classical & keynesian views of interest. The IS-LM model. Extension of IS-LM model with Govt. sector, with labour market & flexible prices. Keyne's and pigou's effects, crowding out hypothesis, Relative effectiveness of monetary & ficial policies.

UNIT– III : Inflation and unemployment

Classical, Keynesian and monetarist approach to inflation. Structuralist theory of inflation. Phillips curve analysis- short-run and long –run Phillips curve. Samuelson and solow the natural rate of unemployment hypothesis, non accelerating inflation rate of unemployment NAIRU, Tobins modified Phillips curve, Policies to control inflation.

UNIT– IV : Theories of Business cycle.

Theories of Business cycle- Schumpeter (Innovation) theory, Kaldor, Samuelson, Hicks and Goodwin's model of Trade Cycle. Control of business cycle.

UNIT– V : Modern Macro Economics

Adaptive Expectations-Rational Expectation hypothesis. Basic propositions, policy implications, criticisms. Supply side economics-Features, policy prescription, The new classical macro economics-Hypothesis, policy Implication, criticisms.

Reference Books:

1. Macro Economics: Theory & Policy, G.Ackley.
2. Macro Economics: Dorn Bush & Fisher
3. Macro Economics: N.G. Manikiew
4. General theory of employment, Interest & Money: J.M. Keynes (1936)
5. An introduction to Keynesian Economics: Duddly Dillard
6. Macro Economics Analysis: E. Shapiro
7. Macro Economics- An introduction to Keynesian-Neo-Classical controversy: R. Levacic and Arebmann
8. Macro Economics: Theory and policies: Richard, T. Froyen.
9. Monetary Theory & policy: K K Kusiharra
10. A contribution to Theory of Trade cycle: J R Hicks.

CC- 2.3 : INTERNATIONAL ECONOMICS-II

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I

Balance of payments -Meaning and components of balance of payments; Equilibrium and disequilibrium in the balance of payments; Devaluation and balance of payments adjustment; Foreign trade multiplier with and without foreign repercussions and determination of national income and output

UNIT– II

Approaches to Balance of Payment Adjustments -Absorption, Payments and Monetary approaches for adjustment in the balance of payments; Expenditure-reducing and expenditure-switching policies for balance of payments adjustment;

UNIT– III

Approaches for achieving internal and external equilibrium simultaneously: The Swan model and Mundell-Fleming model; Relative merits and demerits of fixed and flexible exchange rates in the context of growth and development in developing countries.

UNIT– IV

International Economic Co-operation

Regionalism – EU, rationale and progress of SAARC/SAPTA and ASEAN region; problems and prospects of forming customs union in Asia; Multilaterialism – UNCTAD, NIEO, GATT/WTO; Optimum Currency Areas

UNIT– V

International financial institutions – IMF and World Bank; Need, adequacy and determinants of international liquidity; Conditionality clause of IMF from the point of view of India.

Reference Books :

1. Bhagwati, J. (Ed.) (1981), International Trade, Selected Readings, Cambridge, University Press, Massachusetts.
2. Carbough, R.J. (1999), International Economics, International Thompson Publishing, New York.
3. Chacholiades, M. (1990), International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.
4. Dunn, R.M. and J.H. Mutti (2000), International Economics, Routledge, London.
5. Kenen, P.B.(1994), The International Economy, Cambridge University Press, London.
6. Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
7. Krugman, P.R. and M. Obstfeld (1994), International Economics : Theory and Policy, Glenview, Foreman.
8. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle River, N. J., New York.
9. Soderston, Bo (1991), International Economics, The Macmillan Press Ltd., London.
10. Nichans, J. (1984), International Monetary Economics. John Hopkins University Press, Baltimore.
11. Yeager, L.B. (1976), International Monetary Relations, Theory, History and Policy, Harper and Row, New York.
12. Aggarwala, M.R. (1979), Regional Economic Cooperation in South Asia, S. Chand and Co., New Delhi.
13. Brahmananda, P.R. (1982), The IMF loan and India's Economic Future, Himalaya Publishing House, Bombay.
14. Kenen, P.B. (1995), Economic and Monetary Union in Europe, Cambridge University Press, U.K.
15. Kindleberger, C.P. (1996). A History of Financial Crisis: Manias, Panics and Crashes, (3rd Edition), John Wiley and Sons, New York.

CC- 2.4 : MATHEMATICAL TECHNIQUES FOR ECONOMICS-II

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Integration

Definition-definite integral and indefinite integral, methods of integration; economic applications – consumer surplus and producer surplus; differential and difference equations-definitions and solutions

UNIT– II :

Liner Programming

Basic theorems on linear programming; The Simplex method; Duality and its economic interpretation; Dual simplex algorithm; Duality theorem; Complementary slackness theorem, Applications of liner programming in Economics.

Non-liner programming

Kuhn-Tucker optimality conditions: Kuhn-Tucker Sufficiency theorem, Economic interpretation, Duality in non-linear programming

UNIT– III : Input-Output Analysis

Static open model, Hawkins-Simon theorem, A linear programming interpretation, Theorem on non-substitution- Samuelson's version, Leontief dynamic system-causal indeterminacy in dynamic model.

UNIT– IV : Dynamic Optimization

Formal statement, special cases and types, The Generalised Weierstrass Theorem, Calculus of Variations: Euler Equation, Necessary and Transversality Theorem; Dynamic Optimization: The principle of optimality and Bellman's equation, Dynamic Programming solution of multi stage optimization problems, The maximum principle.

UNIT– V : Game Theory

Concept of Game-Two person's zero sum game, prisoner dilemma, Maximin-Minimax principle, Games without saddle points-Mixed strategies, Graphical solution of 2 X n and n X 2 games; Dominance property; General solution of m x n rectangular games & their solutions, co-operative & non-cooperative games.

Reference Books :

1. Dixit, A, Optimisation in Economic Theory, OUP
2. Dorfman R., Samuelson P.A and Solow R. M. Linear Programming and Economic Analysis. Dover Publication
3. Hadley, G. (1962). Linear Programming, Addison-Wesley Pub. Co., Massachusetts.
4. Intriligator, M.D. (1971), Mathematical Optimization and Economic Theory, Prentice Hall, Englewood Cliffs.
5. Gass, S. I, Linear Programming: Methods and Applications, Dover Publications
6. Arrow, K.J. and M.D. Intriligator (eds.) (1981). Handbook of Mathematical Economics, Vol.I, North Holland, Amsterdam.
7. Bez, K. (1983). An Introduction to Input Output Techniques, N.B.T., Goel Publishing House, Meerut
8. Mathur, P.N. and R. Bhardwaj (eds.) (1967). Economic Analysis in Input-Output Research. Input-Output Research Association of India, Pune.

CC- 2.5 : COMPUTER APPLICATIONS IN ECONOMICS (PRACTICAL)

Full Marks: 100
End Sem : 100/6hrs

UNIT– I : Introduction to computer and Operating Systems

Computer Organisation; Central Processing Unit; Types of Memory; Input and Output devices; Classification of computers; Programming languages; Operating System- DOS and Windows; Data Representation and the Number systems: decimal, binary, octal and hexadecimal.

UNIT– II : Use of Computer for Office Automation

Spread sheet - Concept and use of spread sheet, Structure of a spread sheet, Spread in-built functions, Chart feature of a spread sheet, Operation and Use of MS-Excel and Lotus Smart-suite.

UNIT– III : Statistical Data Processing Techniques-I

Statistical Package handling and command description Statistical Package for Social Science (SPSS); Basic statistical and econometric functions and their analysis - Analysis of Regression, Analysis of correlation

UNIT– IV : Basic of Database

Introduction to Economic and Business Data Processing; The concepts of relational database; Simple programming techniques (in MS-Access); Using Queries, Forms and Report Wizard; Working from Command Window.

UNIT– V : Econometric software : R & Gnetl

Economic Application of MS-Access; and Handling and command descriptions of MS-Power Point; Slide creation and presentation through MS-Power point.

Reference Books :

1. Kerns (1993), Essentials of Microsoft Windows, Word and Excel, Prentice Hall of India, New Delhi.
2. Martin S. Matthew (1997), Excel for Windows 95, Tata McGraw Hill, New Delhi.
3. Montgomary, Douglas C. (2007) 5/e, Design and Analysis of Experiments (Wiley India)
4. Kothari C.K. (2004) 2/e, Research Methodology – Methods and Techniques (New Age International, New Delhi)
5. The Complete reference Office Xp- Stephan L. Nelson, Gujulia Kelly (TMH)
6. Basic Computer Science and Communication Engineering – R. Rajaram (SCITECH)

SEMESTER-III

CC- 3.1 : PUBLIC FINANCE THEORY AND PRACTICE

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : INTRODUCTION

The role of Govt. in a Changing perspective., Fiscal functions of the Govt., Provision of Pvt. Goods, Public goods Social goods merit goods, mixed goods, Externality & the role of the Govt.

UNIT– II : PRINCIPLES OF TAXATION

Benefit Principle, Bowen & Lindahl's model, Principle of equity, Ability to pay Principle, Excess burden doctrine, Principle of fiscal neutrality, Administrative efficiency, Application of taxation Principles in developing countries: Taxable capacity- Meaning, Types & Measurement; Impact & incidence of Tax, Shifting of Tax incidence under different market conditions.

UNIT– III : PUBLIC EXPENDITURE

Wagner's Law of increasing state activities, Peacock-wiseman hypothesis, Effects of public expenditure on production, distribution & other economic activities; Public sector pricing policy-average cost & marginal cost, Criteria for public investment-social cost benefit analysis.

UNIT– IV : PUBLIC DEBT& BUDGET

Sources of public borrowing, effects of public debt, tax Vs debt, burden of public debt, shifting of debt burden, debt redemption & management.

Budget-Balanced Vs unbalanced budget, budget deficits & their limitations, budget as an instrument of economic policy, zero based budgeting, PPBS.

UNIT– V : Issues in Indian Public Finance

Tax reforms in India, DTC & GST, Tax evasion. Principles of Federal Finance, Fiscal Federalism in India, Centre- State financial relation, financial autonomy of states, shrinking size of development finance through budgets.

Reference Books :

1. Musgrave R.A & P-Musgrave Public Finance theory & Practice, McGraw Hill.
2. Ghosh, Ambar & Chandana Ghosh (2008), Economics of the Public Sector, PHI
3. Due John F & Friedlander, Government Finance.

CC- 3.2 : DEVELOPMENT ECONOMICS

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Measuring Economic Development

Measurement of development and development gap: GDP, Per capita income, Gini coefficient, Human development indices-HDI, HPI-1, HPI-2, GDI, GEM; A critical analysis of the Human Development Index (HDI)

UNIT– II : Theories of Development

Adam Smith, Ricardo, Malthus, Karl Marx and Schumpeter, Lewis, Nurkse, Leibenstein and Myrdal's Theory

UNIT– III : Growth Models

Harrod-Domar; Solow and Meade; Joan Robinson; Kaldor and Pasinetti; Golden Rule of Capital Accumulation. Steady State growth

UNIT– IV : Some New Growth Models

Cambridge capital controversy in The Neo- Classical analysis Of Growth, the new Endogenous Growth Theory, One sector growth models The AK model, learning by doing and knowledge spill over, Romar's model of technical change

UNIT– V : Measures for Development

Capital Formation, Human capital formation and Manpower planning, Natural Resources, Entrepreneur, Technology, capital-output ratio, Choice of Technique, Agriculture and Industry, Role of state

Reference Books :

1. Adelman, I. (1961), Theories of Economic Growth and Development, Stanford University Press, Stanford.
2. Adelman, I. *Theories of Economic Growth and Development*, Stanford University Press. Barro U. K., Robert J and Xavier Sala-i-Matin, Economic Growth, PHI.
3. Behrman, S. and T.N. Srinivasan (1995), Handbook of Development Economics vol.3 Elsevier, Amsterdam.
4. Brown, M. (1966), On the Theory and Measurement of Technical Change, Cambridge University Press, Cambridge, Mass.
5. Chenery, H. and T.N. Srinivasan (Eds) (1989), Handbook of Development Economics, Vols. 1 & 2 Elsevier, Amsterdam
6. Dasgupta, P. *An Enquiry into Well-being and Destitution*, Clarendon Press
7. Ghatak, S.*An Introduction to Development Economics*, Allen and Unwin
8. Higgins, B. *Economics Development*, W.W. Norton
9. Hogendorn J.S. *Economic Development*, Addison, Wesley, New York
10. Kindleberger, C.P. *Economic Development*, McGraw Hill
11. Robert Barro and Xavier Sala-i-Matin, Economic Growth, PHI
12. Thirwal, A.P. *Growth and Development*, Palgrave Macmillan.
13. Todaro, M P. *Economic Development*, Pearson India.

CC- 3.3 : ENVIRONMENTAL ECONOMICS

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Economy and Environment:

The historical perspectives of environmental economics– Early economic paradigms, and the rise of environmentalism in post war economics; the Economics and Environment Nexus; the Environment-Development-Poverty Nexus; Sustainable Development-Concept and Operationalisation, Sustainable economic growth and development- the law of thermodynamics, the constant wealth

UNIT– II : Environmental Values and Valuation:

Total Economic Value: Use Value- present use value and future use value, Non-use Value-bequest value and existence value; Total economic value and decision making; Valuation of Environmental Benefits: Non-demand curve method- Opportunity cost, alternative cost, shadow prices, government payments, Dose response; Willingness to pay vs Willingness to accept; Demand curve method-Expressed preference: Contingent valuation and Contingent ranking, Revealed preference: Hedonic pricing method and travel cost method; cost-benefit analysis.

UNIT– III : Economics of Environment:

Environmental Externality: Market failure- Pigouvian, Coasian and Arrowian solutions; Nonconvexities in productionnset, Uncertainty and choice of policy instruments (Graphical approach). Environmental Instruments: Property regulations, Command and Control regulations; Economic, Fiscal and Financial Instruments (Pollution charges and Tradable permits). Environmental Issues in the Global Context: Green House Gases (GHG) and Ozone depletion, Montreal protocol, Trade and Environment, GATT & Environment

UNIT– IV : Economics of Natural Resources:

Exhaustible Resources: Hotelling, Rule, Solow Hartwick rule, Depletion Cost, Optimal pricing; Renewable

Resources: Model of biological population growth, fisheries, common property resources, forest conservation, community participation; Management of common property resources - People's participation in the management of common and forest lands; The institutions of joint forest management and the joint protected area management; Social forestry - rationale and benefits.

UNIT– V : Environmental Issues and Challenges and Economics

Climate Change: Scale of the Environment Challenge, Economics, Ethics and Climate Change.

Reference Books :

1. Baumol W.J. and W.E. Oates (1988) The Theory of Environmental Policy (2nd Edition) Cambridge University Press, Cambridge.

2. Bhattacharya R.N(2001) Environmental Economics, An Indian Perspective, Oxford University Press, New Delhi.
3. Bromley, D.W.(Ed) (1995), Handbook of Environmental Economics, Blackwell,
4. Hanley N.J.F. Shogern and B.White (1997) Environmental Economics in Theory and Practice Macmillan.
5. Hussen A.M. (1999) Principles of Environmental Economics Routledge, London.
6. Jeroen, C.J.M. van den Bergh (1999) Handbook of Environmental and Resource Economics, Edward Elgar Publishing Ltd U.K.
7. Kolstad C.D. (1999) Environmental Economics, Oxford University Press, New Delhi.
8. London Fisher, A, C. (1981) Resource and Environmental Economics, Cambridge University press Cambridge.
9. Pearce D.W. and R. Turner (1991) Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore.
10. Perman R. Ma and J. McGilvary (1996) Natural Resource and Environmental Economics, Longman, London.
11. The Economics of Climate Change: The Stern Review by Great Britain Treasury, Cambridge University Press
12. Tietenberg, T. (1994) Environmental Economics Policy and Harper Collins New York

CE- 3.4A : BASIC ECONOMETRICS

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I

Meaning and scope of econometrics; two variable linear regression model-Its assumptions, estimation of parameters and properties of estimators; Gauss Markov Theorem, coefficient of determination; Analysis of variance of two variable LRM, Prediction in two-variable model

UNIT– II

K-Variable LRM: Estimation of parameters, properties of estimators, Gauss Markov Theorem; Testing of significance of single coefficients and subset of coefficients: ANOVA; Adjusted coefficient of determination, prediction in K-variable model

UNIT– III

Multicollinearity-Nature, detection of multicollinearity, consequences & remedy. Specification Errors and measurement errors

UNIT– IV

Heteroscedasticity- Consequences, detection and remedy; Generalized least square and weighted least square estimation; Auto-correlation: Detection, consequences and remedy

UNIT– V

Dummy independent variable models: Estimation; testing the structural stability of regression models; Interaction effects; seasonal analysis; piecewise linear regression

Reference Books :

1. Goldgerger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass.
2. Gujarati, D.N. (2005), Basic Econometric (3rd Edition), McGraw Hill, New Delhi.
3. Kmenta, J. (1997), Elements of Econometrics (Reprint Edition), University of Michigan Press, New York.
4. Koutsoyiannis, A. (1977), Theory of Econometrics (2nd Ed.) The Macmillan Press Ltd., London.
5. Theil, H. (1981) Introduction to Econometric Prentice Hall of India, New Delhi.
6. Johnson, J. (1991), Econometric Methods, McGraw Hill Book Co., London.
7. Pindyck, R.S. and D.L. Rubinfield (1976), Econometric Modles and Economic Forecasts, McGraw Hill Kogakusha, Tokyo.
8. Harvey, A.C.(1981), Econometric Analysis of Time Series, Phillip Allen, London.
9. Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.

CE- 3.4B : FINANCIAL ECONOMICS

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Introduction to Financial Markets

Capital markets, consumption and investments with and without capital markets, market places and transaction costs and the breakdown of separation; Fisher separation theorem; the agency problem; Maxim-ization of shareholder's wealth

UNIT– II : Theory of Uncertainty

Axioms of choice under uncertainty; utility functions; expected utility theorem; certainty equivalence, measures of risk-absolute and relative risk aversions; stochastic dominance-first order, second order and third order; measures of investment risk-variance of return, semi-variance of return, shortfall probabilities

UNIT– III : Variance Portfolio Theory

Measuring portfolio return and risks, effect of diversification, minimum variance portfolio, perfectly correlated assets, minimum variance opportunity set, optimal portfolio choice; mean variance, Frontier of risky and risk-free asset, portfolio weights

UNIT– IV : Index Models, CAPM & APT

Models of asset returns, multi index models, single index model, systematic and specific risk, equilibrium models-capital asset pricing model, capital market line, security market line, estimation of beta,; arbitrage pricing theory

UNIT– V : Fixed Income Securities

Bond prices, spot prices, discount factors, and arbitrage, forward rates and yield-to-maturity, Price sensitivity, Hedging

Reference Books :

1. Copeland, T. E. and J. F. Weston, Financial Theory and Corporate Policy, Addison Wesley, 1992
2. Brealey, R. and S. Myers, Principles of Corporate Finance, fifth edition, New York, McGraw Hill, 1997.
3. Elton, E.J and M.J. Gruber, Modern Portfolio Theory & Investment Analysis, (fourth edition) John Wiley & Sons 1991.
4. Houthakker, H.S. and P.J. Williamson, Economics of Financial Markets, Oxford University Press, 1996
5. Johnston (1991), "Economic Methods", McGraw Hill Book Co.
6. Koutsoyiannis, A (1992), "Introduction to Econometrics", OUP
7. Dougherty, C (1992), "Introduction to Econometrics", OUP
8. Gujurati, D & Sangeetha (2007), "Basic Econometrics", McGraw Hill Book Co.

SEMESTER-IV

CC- 4.1 : INDIAN ECONOMIC PROBLEMS AND POLICY

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Economic Development & Planning

Factors affecting economics development in India, Problems of poverty, Inequality and un employment and various programmes of the Govt., Planning in India, Objectives and strategy of planning, failures and achievements of plan, Recent Plan-objectives, allocation and targets, NITI Ayog

UNIT– II : Demographic Features, Resource Base and Infrastructure.

Broad Demographic features of Indian population, Theory of Demographic transition and its applicability in India context, Population policy, Migration and urbanization, Resource Base in India Physical structure-Energy, transport, Communication, social infra structure-Education and Health, issues and policies in financing infrastructure development, Growth of the service sector

UNIT– III : Issues in Agriculture & Industrial Sector

The Agricultural sector-Role of agricultural sector in India's economic development, Critical evaluation of land reforms in India and recent initiative, need for second green revolution, New agricultural policy, PDS system, Industrial sector, Scenario since industrial policy of 1991, Public sector enterprises and their

performance, Privatization and disinvestment debate, Problem of sick units in India and Govt. policy, revival of small scale sector, land acquisition, SEZ and industrialization

UNIT– IV : Financial Fiscal and External sector in India

Issues relating to reforms in Banking & insurance structure and direction of foreign trade, Balance payments, export-import policy and trade liberalization foreign exchange management-FERA & FEMA foreign capital & MNCs in India

UNIT– V : Economic Reforms

Rationale of internal and external reforms, Liberalization, Privatization and Globalization, WTO & its impact on different sectors of the economy, Financial sector reforms fiscal reforms.

Reference Books :

1. Chakravarly. S (1987), development Planning: The Indian experience, Oxford University Press, New Delhi.
2. Brahmananda, P R and V R Panchmukhi (Eds) (2001), Development experience in the Indian Economy: Inter-stali perspective, Bookwell, Delhi.
3. Government of India, Economic Survey (Annual), Ministry of Finance, New Delhi.
4. Hand book of Indian Economy-RBI publication.
5. Dalt, R (Ed) (2001) Second generation economic reforms in India, Deep & deep publications, New Delhi.
6. Bhagwati, Jagdish N and Srinivasan T N (1975) foreign trade Regimes and Economic development: India, National Bureau of Economic Research.
7. Hanumantha Rao CH (1991), Rural Society and Agricultural Development in Course of Industrialisation: Case of India case of India, Economic and political weekly 26 (11/26):691-96.
8. Anagariya, Arvind 2008- India the emerging Giant, Oxford University Press, New Delhi.

CE- 4.2A : APPLIED ECONOMETRICS

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : Simultaneous Equation Models

Introduction to Simultaneous Equation models with examples; Simultaneous equation bias and inconsistency of OLS estimators; Structural and Reduced form; Identification problem–Order and Rank conditions for identification

UNIT– II : Estimation of Simultaneous Equations

Methods of estimating simultaneous equation system: Recursive methods and OLS, Indirect least squares (ILS), Least Variance Ratio, 2SLS and 3SLS

UNIT– III : Autoregressive and Distributed Lag Models

Autoregressive and Distributed Lag Models – Koyck model; Adaptive Expectation model; Stock Adjustment model; Almon approach to distributed-lag models

UNIT– IV : Time Series Analysis

Time-Series Analysis – Basic concepts of time-series; Stationary and Non-stationary Stochastic Process; Integrated Stochastic Process; Random Walk model; Tests of Stationarity–Autocorrelation function and Correlogram; Unit Root test and Dickey-Fuller test, Co-integration and Engle-Granger (EG) test

UNIT– V : Panel Data Analysis: panel data

Definition, estimation of panel data model

Reference Books:

1. Goldgerger, A.S. (1998), Introductory Econometrics, Harvard University Press, Cambridge, Mass.
2. Gujarati, D.N. (2005), Basic Econometric (3rd Edition), McGraw Hill, New Delhi.
3. Kmenta, J. (1997), Elements of Econometrics (Reprint Edition), University of Michigan Press, New York.
4. Koutsoyiannis, A. (1977), Theory of Econometrics (2nd ed.) The Macmillan Press Ltd., London.
5. Theil, H. (1981) Introduction to Econometric Prentice Hall of India, New Delhi.
6. Johnson, J. (1991), Econometric Methods, McGraw Hill Book Co., London.
7. Pindyck, R.S. and D.L. Rubinfield (1976), Econometric Modles and Economic Forecasts, McGraw Hill Kogakusha, Tokyo.
8. Harvey, A.C.(1981), Econometric Analysis of Time Series, Phillip Allen, London.

9. Intrilligator, M.D. (1978), Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.

CE- 4.2B : INTERNATIONAL FINANCE

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I : International Finance: Importance, Types and Scope

International Finance-Importance to Business firms, Investors, Banks, Speculators and Regulators. Types of International transactions- International Trade, F.D.I, FIIs. Risks in International finance-Political, Exchange rate, Counter-party, Liquidity risk, Scope of International finance.

UNIT– II : Financial markets & related concepts

Financial markets- Derivatives market, Money market, Foreign exchange market, Capital market, Integration of Capital and foreign exchange market. Indian foreign exchange market- Structure, participants. Concepts of Currency convertibility-Capital account convertibility-Specific to Indian context.

UNIT– III : Foreign Exchange Rates and related concepts

Foreign exchange rate-Direct & indirect quote, Two-way quote, Cross-rate, Spot rate and inter-Bank rate. Direct and indirect exchange rate in two way quote. Forward rate and calculation of forward rate, Currency derivatives, Forward contract Vrs futures contract.

UNIT– IV : Sources of International finance and its regulation

Factors affecting financing decisions, Sources of international finances-Loans, Euro-securities, foreign bonds, Depository receipts (DRs)-Types, impact of DR issue on domestic float. ECBs of India.
Exchange rate management By R.B.I.NEER, FERA (1973) and FEMA(1999)-A comparison

UNIT– V : International Financial institutions

International banking-factors leading to its growth. Types of international banking offices-offshore financial centres, Non-Banking Financial companies.
Evolution of International financial system-Pre & Post Bretton woods System, IBRD, IDA, ADB, IFC
Euro-dollar and Euro-currency market-Evolution, Growth and prospects.

Reference Books :

1. Levi, M.D-International finance: The markets and financial management of multinational business, 3rd edition, McGraw Hill Int. Editions. 1996
2. Heller, Roberth. International monetary Economics, Prentice Hall, Engelwood cliffs.
3. Verghese, S.K:- Foreign exchange and Financing of Foreign Trade, Vikas Publishing House, New Delhi.
4. Kohn , M(1996)-"Financial institutions and markets", Tata McGraw Hill , New Delhi.
5. Varshney R.L, Bhashyam S (2001)-International financial management, Sultan Chand and Sons, New Delhi.
6. Shailaja, G (2008)-International Finance, Universities Press Pvt. Limited.

CE- 4.3 : RESEARCH METHODOLOGY

Full Marks: 100
Mid Sem : 20/1hr
End Sem : 80/3hrs

UNIT– I

Introduction to scientific social research-meaning, objective, Nature, need for research Design. Steps in social Research, Limitations & difficulties involved in designing research. Features of good research design.

UNIT– II

Research Technique-data collection-Primary and secondary data-Methods of collecting primary data-Interviews, questionnaire, observation, schedule, Secondary data-sources, Limitations of Secondary data. Sampling and sample design. Basic features in sampling, Types of sampling, Ideal sampling, main steps in sampling, sampling and non-sampling errors. Case study Method.

UNIT– III

Scaling of data-Classification, Tabulation, Graphs & Diagrams. Statistical Methods-Averages, standard deviation, covariance & correlation, Analysis of Variance (ANOVA)

UNIT– IV

Hypothesis, meaning, Definition, sources of hypothesis, qualities of workable hypothesis, Importance of hypothesis, problem in formulating hypothesis-simple, composite, null hypothesis. Hypothesis testing-Reason for testing hypothesis. Hypothesis testing process-chi-square-test, t-test, f-test. Type of errors in testing hypothesis, level of significance.

UNIT– V

Academic writing skill: writing a research proposal, Dissertation writing: structure, clarity, consistency, chapter-scheme, Preparation of bibliography & reference. Methods of presentation, appendices, Review of literature.

Reference Books :

1. Kothari C R 1990-Research Methodology, methods & Techniques, Wiley Easter Limited, New Delhi
2. Sadhu & Singh, Research Methodology in Social sciences.
3. Devendra Thakur-Research Methodology in social Sciences.
4. Majumdar P K, Research Methods in social Science, Viva Books Pvt. Ltd., New Delhi.
5. Kurein C T a, Guide to Research in Economics.
6. Basofia G R Sharma K K – Research methodology
7. Gupta S.P:-Statistical Methods.

CE- 4.4 : DISSERTATION WITH VIVA-VOICE

Full Marks: 100
End Sem : 100/6hrs

This paper carries 80 marks for dissertation with viva-voice and 20 marks for seminar paper preparation and presentation.

- A student is to prepare & present a seminar paper on a particular topic relating to Economics under the guidance of a department faculty member.
- She also has to prepare dissertation on any current topic relating to economics under the guidance of department faculty member and has to face the viva-voice. Without viva-voice, marks will not be allotted even though she submits the dissertation.

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