VIDYASAGAR UNIVERSITY

MIDNAPORE-721102

Faculty of Arts

Department of Economics

Post Graduate Syllabus in Economics

Under Choice Based Credit System (CBCS)

w.e.f. 2018-19

COURSE STRUCTURE OF **M. Sc** / **M.A.** IN **ECONOMICS**

SEMESTER	COURSE NO.	COURSE TITLES		FULL MARKS	Credit
I	ECO 101	ADVANCED MICROECONOMIC THEORY		50	6
	ECO 102	ADVANCED MACROECONOMIC THEORY		50	6
	ECO 103	QUANTITATIVE ECONOMICS		50	6
	ECO 104	INDIAN ECONOMY-I		50	6
	ECO 105	INTERNATIONAL ECONOMICS		50	6
	TOTAL			250	30
II	ECO 201	STATISTICS AND BASIC ECONOMETRICS		50	6
	ECO 202	THEORIES OF ECONOMIC GROWTH		50	6
	ECO 203	ENVIRONMENT AND RESOURCE ECONOMICS		50	6
	C-ECO 204	*FUNDAMENTALS OF ECONOMICS THEORY (CBCS)*		50	4
	ECO 205	DEVELOPMENT ECONOMICS:THEORY		50	6
	TOTAL			250	28
III	ECO 301	ECO 301A	ECONOMETRICS I	50	6
		ECO 301B	AGRICULTURAL ECONOMICS I		
	ECO 302	ECO 302A	ECONOMETRICS II	50	6
		ECO 302B	AGRICULTURAL ECONOMICS II		
	ECO 303	ECO 303A	ECONOMETRICS III	50	6
		ECO 303B	AGRICULTURAL ECONOMICS III		
	C-ECO 304	*CONTEMPORARY ISSUES OF INDIAN ECONOMICS (CBCS)*			
	ECO 305	ECO 305A	ECONOMETRICS IV	50	6
		ECO 305B	AGRICULTURAL ECONOMICS IV		
	TOTAL			250	28
IV	ECO 401	COMPUTER APPLICATION IN ECONOMICS		50	6
	ECO 402	DEVELOPMENT ECONOMICS:EXPERIENCES		50	6
	ECO 403	FINANCE		50	6
	ECO 404	INDIAN ECONOMY-II		50	6
	ECO 405	DISSERTATION		50	6
	TOTAL			250	30
	GRANDTOTAL			1000	116

Full Marks, 50 = END SEMESTER EXAMINATION (40) + INTERNAL ASSESSMENT (10)

Post-Graduate Syllabus in Economics,V.U., 2018-19 20

Papers, Total Marks: 1000

Total No. of Papers – 20 with each paper of Full Marks 50. Each Semester containts 5 papers. Except papers ECO-401 and – ECO-405 , each paper of 50 marks includes 10 marks of Internal Assessment. Except papers ECO-401 and – ECO-405 , each paper consists of two groups of 25 marks including internal assessment of 5 marks for each group. There are no internal assessments for papers ECO-401 and ECO-405

Distribution of Marks:

All papers (Except Paper – ECO-401 and ECO-405):

Group A (25 Marks): 2 Marks *2 Questions (out of 4) + 6 Marks*1 Question (Out of 2) + 10 Marks*1 (Out of 2) + Internal Assessment – 5 marks

Group B (25 Marks): 2 Marks *2 Questions (out of 4) + 6 Marks*1 Question (Out of 2) + 10 Marks*1 (Out of 2) + Internal Assessment – 5 marks

Papers – ECO-401 and ECO-405:

Paper – ECO-401 : Computer Practical: 50

Paper – ECO-405 : Dissertation 50 (Paper -30 Marks, Viva Voce – 20 Marks)

Programme Outcome

Completing master's degree in economics from the Department of Economics with Rural Development, Vidyasagar University, the students are expected to have comprehensive knowledge of modern theories of economics as an academic discipline. They are also expected to be able to analyse economic problems of different countries or regions, to acquire skill for data analysis and data interpretation using statistical methods, to evaluate economic and public policies using appropriate models and also to exchange economic ideas. The programme will help students to pursue higher studies in the subject or related disciplines. The programme is also expected to improve analytical and argumentative skills of the students that are crucial for winning job in the present day job market.

SEMESTER -I

Course No: ECO 101: Advanced Microeconomic Theory 50 Marks 6 credits

Course Outcome:

Industrial Organisation provides a foundation for the study of many fields that rely on an understanding of interactions among firms in the economy, including business strategy, corporate finance, marketing, international trade, banking, and the economics of organizations. On successful completion of this course, students will be able to explain how price and non-price competition among firms affect economic welfare, explain how market structure affects behaviour and vice versa, analyse and evaluate models of monopoly, oligopoly and competitive markets, analyse basic antitrust and regulatory policy issues among others.

Group –A: 25 Marks (Written: 20, Internal Assessment: 05)

1. Role of Economic Organisation in the functioning of Economy and Existence and Nature of Firm
2. A Review of Consumer Behaviour and Choice under Uncertainty
3. Market Economy, Pareto Optimality, General Equilibrium and Partial Equilibrium
4. Analysis of Market Failure: Asymmetric information, Moral Hazard and Principal Agent Problem
5. The Optimum Firm
6. Financial Decision making of Firm

References:

a) Coase, R. H., The Nature of the Firm, Economica 1937
b) Alchian, A. and Demsetz, H. Production, Information Cost and Economic Organisation, American Economic Review, 1972
c) Arrow, K. J., Limits to Economic Organisation
d) Robinson, E. A. G., Structure of the Competitive Industry
e) Bator, F. M., An Anatomy of Market Failure, Quarterly Journal of Economics 1958
f) Marris, R. L. The Theory of Managerial Capitalism
g) Koutsoyiannis, A. Non-Price Decisions, Ch. 8-10

Group –B: 25 Marks (Written:20, Internal Assessment :05)

1. Concept of Natural Monopoly, Review of Theory of Oligopoly.
2. Concentration, Concentration Measures, Mergers, Entry Barriers, Entry Deterrence, Contestable Markets.
3. Study of Some Selected Industries in India (atleast one in detail) -Jute, Iron and Steel, Pharmaceuticals, Textiles, Engineering goods, IT industry, etc.

References:

1. Shy, O.: Industrial Organization, The MIT Press, 1995.
2. Tirole, J: The Theory of Industrial Organization, The MIT Press, 1988.
3. Basu, K.: Lectures in Industrial Organisation Theory. Basil Blackwell Oxford, 1988.
4. Chakrabarty, S.P.: Issues in Industrial Economics, Avebury Publishing, 1995.

5. Varian H.: Microeconomic Analysis, W.W. Norton & Company, 1992.
6. Martin,S.: Advanced Industrial Economics. Blackwell, 1993.
7. Hay, D. A., and D.J. Morris: Industrial Economics and organization: Theory and Evidence, Oxford University Press, 1991.
8. Sen, Gokarn & Vaidya: The Structure of Indian Industry, Oxford University Press, 2003.
9. Mascollel,A., Whinston, M. and Green, J.: Microeconomic Theory, Oxford University Press , First Indian Edition, 2006.

Course No: ECO 102: Advanced Macroeconomic Theory

50 Marks 6 credits

Course Outcome:

As the given course is named Advanced Macroeconomics it presents an in depth analysis of modern macroeconomic theories including different schools of thoughts such as new classical, real business cycle and new Keynesian. In specific terms it explains how income and employment are determined in the structure of rational expectations, technological shocks and sticky wages justified by market imperfections. The course also deals with the disequilibrium macroeconomic models and the origins and practicability of the Phillips curve. The course provides an advanced overview of the field as well as a rigorous analysis of the field's foundations. Students who do not necessarily intend to specialize in macroeconomics are thereby exposed to the most up to date theories, while those students who plan to pursue higher research in macroeconomics are well equipped with the latest techniques and know how.

Group –A: 25 Marks (Written : 20, Internal Assessment : 05)

Macroeconomic Models of Aggregate Supply

Sticky Wage Model (New Keynesian Model), Sticky Price Model (New Keynesian Model), Imperfect Information Model (New Classical Model), Workers' Misperception Model (New Classical model)

Real Business Cycles and New Keynesian Economics

Real Business Cycle Models: Central Features, A Simple Real Business Cycle Model, Effects of a Positive Shock to Technology, Macroeconomic Policy in a Real Business Cycle Model.

New Keynesian Economics (at least one in detail): Sticky Price (Menu Cost) Model, Efficiency Wage Models, Insider-Outsider Models and Hysteresis.

Disequilibrium Macroeconomics (at least one of the following will be taught in detail)

a) Disequilibrium model of Clower
b) Disequilibrium model Barro-Grossman
c) Disequilibrium model Malinvaud and Benassy

References:

a) Froyen, R.T.: Macroeconomics Theories and Policies, Pearson Education, 7th edition.
b) Mankiw, N.G. (1990), "A Quick Refresher Course in Macroeconomics", Journal of Economic Literature, American Economic Association, 28(4), 1645-60, December.
c) Mankiw ,N.G. (2000), Macroeconomics, Fourth Edition, Harvard University Press.
d) Barro, R.J. and Grossman, H.I. (1971), "A General Disequilibrium Model of Income and Employment", *American Economic Review*, 61, 82-93.

Group B: 25 Marks (Written: 20, Internal Assessment: 05)

1. Phillips Curve and the Natural Rate of Unemployment Hypothesis
2. Adaptive Expectation, Rational Expectation and the LucasCritique- A Market clearing Model with rational Expectation
3. Money Demand under Hyperinflation □ The Cagan Model
4. Policy irrelevance□ Problem of time inconsistency and rule versus discretion: basic issue.
5. Monetary policy under Neo Classical and New Keynesian Phillips Curve with an application to Price Level and Inflation Targeting.

References of Group B

e) Cagan P. (1956), 'The Monetary Dynamics of Hyperinflation', *Studies in theQuantityTheory of Money*, edited by Milton Friedman, Chicago, pp. 25-117.
f) Clower, Robert, W. (1969), "The Keynesian Counter-Revolution: A Theoretical Appraisal, in Clower, R. W., ed., *Monetary Theory*, London Penguin Books.
g) Friedman, & Hahn (1990), *Handbook of Monetary Economics, Vols. 1 and 2*, Elsevier, North Holland .
h) Friedman, B.N. & Michael Woodford (2010), *Handbook of Monetary Economics, Vols.3*, Elsevier, North Holland
i) Froyen, R.T.: Macroeconomics Theories and Policies, Pearson Education, 7th edition.
j) Mankiw ,N.G. (2000), *Macroeconomics*, Fourth Edition, Harvard University Press.
k) Stiglitz, Joseph E. (2011), 'Rethinking of Macro Economics: What Failed, and How to Repair It', Journal of the European Economic Association, August 2011.
l) Walsh (1998): Monetary Theory and Policy, MIT Press

Course No: ECO 103: Quantitative Economics 50 Marks 6 credits

Course Outcome:

The course covers some important mathematical techniques that are often encountered in economics. Students will learn the quantitative techniques like non-linear programming, set theory, game theory and dynamic optimisation. These mathematical techniques will equip the students to learn and analyse various economic problems. The course will be helpful to other courses in the programme.

Group –A: 25 Marks (Written: 20, Internal Assessment: 05)

Review of Classical Constrained Programming and Linear Programming; Maximum (and Minimum) Value Functions and the Envelope Theorem, Duality and the Envelope Theorem.

Nonlinear Programming- Nature, Kuhn-Tucker Conditions, Graphical Solution, The Constraint Qualification, Sufficiency Theorems, Saddle- Point Theorem, Economic Applications.

Sets and set operations, Cartesian product of sets, Relation on a Set, Order relations, Functions, One- to- one and onto functions, Bijective functions, Numbers.

References (Gr. A):

a) Chiang, A.C.: Fundamental Methods of Mathematical Economics, Third Edition, 2005.
b) Chiang, A.C. and Wainwright, K.: Fundamental Methods of Mathematical Economics, Fourth Edition, McGraw- Hill, 2005.
c) Intrilligator: Mathematical Optimization and Economic Theory, Prentice Hall, 1971.
d) Mapa, S. K.: Introduction to Real Analysis, Sarat Book Distributors, Fourth Edition, 2004.
e) Henderson, J.M. and Quandt, R.E.: Microeconomic Theory: A Mathematical Approach, 3rd Edition, McGraw- Hill Book Company, 1980.
f) Sydsaeter, K. and Hammond, P.: Mathematics for economic analysis, Pearson Education, 2002.
g) Bartle, R. G. and Sherbert, D. R.: Introduction to Real Analysis, John Wiley, NewYork, Third Edition.
h) Dixit, A: Optimization in Economic Theory, Oxford University Press, 1976.
i) Blume, L. and Simon, C.: Mathematics for Economists, Norton, 1994.

Group –B: 25 Marks (Written: 20, Internal Assessment: 05)

1. An Outline of Game Theory:

A. Introductory Game Theory

B. Normal Form Games - Pure Strategies, Dominance, Nash

equilibrium, Finite Normal Form Game, Cournot Oligopoly, Mixed Strategies.

C. Introduction to static games with incomplete information
D. Introduction to Dynamic games with complete and perfect information

2. Dynamic Optimization:

A. An introduction to economic dynamics
B. Simultaneous systems of differential equations, Stability analysis and linear phase diagrams
C. Introduction to Optimal Control Theory· the maximum principle, Optimisation problems involving discounting.

References (Group- B)

a) Gibbon Robert, Game Theory for Applied Economists, Princeton University Press 1992.
b) Gibbon Robert,A primer in Game theory, Harvester Wheat sheaf London 1992.
c) Aliprantis C. D. and S.K. Chakraborty ,Games and Decision Making , Oxford University Press
d) Binmore Ken,Game Theory · A Very Short Introduction , OUP,2007 .
e) Luce R D and H Raffia, Games and Decisions, John Wiley and Sons, 1957.
f) Myerson R.B. ,Game Theory – Analysis of Conflict, Harvard Univesity Press, 1991
g) G. Owen, Game Theory, Academic Press 1991.
h) Mas· Colell A., M.D. Whinston and J R Green ,Microeconomic Theory, OUP
i) Varian H R , Intermediate Micro Economics , W. W. Norton & Company; Eighth Edition edition (December 3, 2009).
j) Eric Rasmusen, Games and Information: an introduction to Game Theory , Blackwell Publishing,2001.
k) Chiang, A.C., Fundamental Methods of Mathematical Economics, McGraw· Hill, 2005.
l) Chiang, A.C., Elements of Dynamic Optimisation, McGraw· Hill, 1993.
m) Shone Ronald, Economic Dynamics, Cambridge University Press,1997.
n) Hoy, M., Livernois, J., McKenna, C., Rees, R., & Stengos, T. (2011). *Mathematics for economics*. MIT press.

Course No: ECO 104: Indian Economy –I 50 Marks 6 credits

Course Outcome:

The course is ccritically analyzing the issues, challenges and opportunities of development experiences of Indian economy. By this the students will be able to understand the current economic scenario and their routes in history.

Group –A: **25 Marks (Written: 20, Internal Assessment: 05)**

1. Industrial Sector of Indian Economy: Growth & Diversification, Challenges and Prospects in the wake of Financial Recovery Growth since 2007-08), Major debates and Controversies in the study of Indian

Industrial Sector, Understanding the Database of the Indian Industrial Sector (IIP, NAS, ASI, CMIE), Relation between Growth of Industrialization and Employment since 1991, Energy Intensity in Indian Industries- Trends over Time- are the industries becoming energy efficient over time? SSi and Globalization.

2. Financial Sector: Reforms and its impact, Financial Performance of Banks, NBFI, Capital Market, Major Policy Initiatives, Challenges and Outlook.

References:

Group –A

a) Dutta and Ruddar (2003), Economic Reforms, labour and employment, Deep and Deep Publication.
b) Sandesera, J.C. (1992) Industrial Policy and Planning: 1947-1951, Sage Publication.
c) Kapila, Uma (ed) Indian Economy since Independence, Academic Foundation
d) Sen, Rajkumar (ed), 2005, Social Sector Development in India, Deep and Deep
e) Joshi, V, and Little, I.M.D. India's Economic Reforms: 1991-2001,OUP
f) Govt. of India Economic Survey 2004-05.
g) Bhagwati, J. 2004; In Defense of Globalization, OUP.
h) Tisdell, Clem and Sen, Rajkumar (ed): economic Globalization, 2004.
i) Bala, Subrahmanya, M. H. (2004), 'Small Industry and Globalisation Implications, Performance and Prospects', Economic and Political Weekly, vol. 39, NO: 18
j) Goldar, B N (2010), Energy Intensity of Indian Manufacturing Firms: Effect of Energy Prices, Technology and Firm Characteristics, Delhi: Institute of Economic Growth, http://www.mse.ac.in/Frontier/m13%20Goldar%20A.pdf
k) Nayyar, Deepak (1994) Industrial Growth and Stagnation: The Debate in India, editor, Bombay; Oxford University Press.

Group –B: 25 Marks (Written: 20, Internal Assessment: 05)

1) Economic Growth and Structural Change in India

2) Employment and Unemployment situation in India: Trends and patterns of employment and unemployment, Interrelationship between Growth and Employment; Economic reforms and Informal Sector.

3) Poverty in India: Measurement of Poverty– Alternative Approaches; Trend of Poverty- Across Regions, States, Social Castes etc.

4) Food and Nutritional Insecurity in India

References

: Group-B

1. Marjit, S. and S. Kar (2008), *The Outsiders*, Oxford University Press.
2. I.J. Ahluwalia and I.M.D. Little (2003), *India's Economic Reforms and Development—Essays forManmohan Singh*, Oxford, 2003.

3. Jalan, B. (ed) “The Indian Economy – Problem and Prospects”, Penguin Books.
4. Uma, K. (ed.) Indian Economy since Independence, Academic Foundation.
5. Nayar, G. “Growth and Poverty in Rural India”, EPW,2005, April16.
6. K. Sundaram and Suresh D. Tendulkar, “Poverty in India in the 1990s” EPW, 2003,April.
7. Abhijit Sen and Himansu, “Poverty and inequality in India” I & II EPW 2004, Sept, 18&25.
8. India Development Reports, 2016, 2017, IGIDR, Oxford University Press.
9. Das, Pinaki (2012), ‘Growth Trajectory and Its Implications for Employment in India’, *Indian Journalof Economics*, Special Issue, 2012.
10. Das, Pinaki (2012), ‘Trends of Employment in India: Reflections from Recent NSS Data’, *VidyasagarUniversity Journal of Economics*, Vol. XVI.
11. Papola, T.S. (2012), Employment Growth in the Post-Reform Period, Keynote Paper, ISLE (54), 2012
12. Rural Poverty in India’, EPW, July 28, 2007.
13. Himangshu (2007), ‘Recent Trends in Poverty and Inequality: Some Preliminary Results’, EPW, 10 February.

Course No: ECO 105: International Economics 50 Marks 6 credits

Course Outcome:

This course is meant to learn the basis of international trade, both in goods and services as well as in factors like labour and capital at an advance level, and its effect upon economic growth and development as the restricted/closed economy could not providing all-encompassing solutions to the problem of growth and development. Also, to have an idea of (neo-) protectionism, it discusses the different trade policies countries are taking to restrict international trade at their desired level. Along with this, it also gives scope to learn the interrelationships between international trade, finance, exchange rate and the functioning of domestic macro economy under the head international macroeconomics. In this way, it provides the basic knowledge we require to understand a country’s available fiscal as well as monetary policy options and their pros and cons in today’s world.

Group A: Trade Theory and Policy: 25

Marks (Written -20, Internal Assessment -05)

1. Review of General Equilibrium Trade Models: HOS and Specific Factor
2. Models of International Trade with Imperfect Competition and Increasing Return to Scale
3. Trade in Intermediate Inputs and Factors of Production: MNCs, Vertical Integration, Technology Transfer, Movement of Labour and Capital
4. Trade Policy under Imperfect Competition, Political Economy of Protection, Non-Tariff Barriers under WTO

Group B: International Macroeconomics and Exchange Rate Determination: 25

Marks (Written -20, Internal Assessment -05)

1. International Monetary System and Exchange Rate Regime: Gold Standard, Bretton Woods, IMF and Present Day International Payments System
2. Determination of Exchange rate in International Asset Market: Interest Rate Parity, Monetarist Model, Expectations and Exchange Rate Overshooting
3. Mundell-Fleming Analysis: Capital Mobility and Stabilization Policies under Fixed and Flexible Exchange Rate

References:

a). Acharyya, R.: International Economics: An Introduction to Theory and Policy, Oxford.

b). Beladi, H.andMarjit, S. (1992), "Foreign Capital and Protectionism," Canadian Journal of Economics, Canadian Economics Association, vol. 25(1), pages 233-238, February.

c). Bhagwati, J.N., Panagariya, A. and Srinivasan, T.N.: Lectures on International Trade, Oxford.

d). Caves, R. E., Frankel, J.A. and Jones, R.W: World Trade and Payments- An Introduction, 9th Edition, Pearson.

e). Ghosh, C. and Ghosh, A. (2016), *Indian Economy: A Macro-Theoretic Analysis*, PHI. f). Helpman, E. and Krugman, P – Trade Policy and Market structure, MIT Press.

g). Jones,R. W. (1965), "The Structure of Simple General Equilibrium Models", *Journal of Political Economy*, Vol. 73, No. 6, December, pp. 557-572.

h). Jones, R. W. (1971), "A Three Factor Model in Theory, Trade, and History," in Bhagwati, Jones, Mundell andVanek (eds), *Trade, Balance of Payments and Growth*, North Holland Publishing Company.

i). Krugman, P.R.: Rethinking International Trade, MIT Press.

j). Krugman, P.R. and Obstfeld, M.:International Economics: Theory and Policy, 8th Edition, Pearson.

k). Obstefeld, M. and Rogoff, K.: Foundations of International Macroeconomics, MIT Press.

l). Rivera-Batiz, L., and Olivia, M.: International Trade: Theory, Strategies and Evidence, Oxford.

m). Sikdar, S., Contemporary Issues in Globalization: An Introduction to Theory and Policy in India, Oxford.

SEMESTER -II

Course No: ECO 201: Statistics and Basic Econometrics 50 Marks 6 credits

The course will enable the students to learn some sophisticated statistical and econometric tools to deal with statistical data. In a sense they will learn about sampling methods, distributions and estimations and Hypothesis Testing. They will also have knowledge of ANOVA. In econometrics this course offers deep understanding of the problems of Multicolinearity, Heteroscedasticity, Auto-correlation and Dummy variables. The course also deals with Simultaneous equation models.

Group –A: **25 Marks (Written: 20, Internal Assessment: 05)**

1. Sampling and Sampling Methods, Sampling distributions of statistics.
2. An Introduction to Classical Inference Estimation and Hypotheses Testing; point and interval estimation; Tests of significance.
3. Frequency $\chi 2$: Goodness of Fit, Test of Homogenity, Test of Independence.
4. Analysis of Variance: One way & Two way analysis.
5. Two variable linear models the linear specification; basic assumptions; least square estimators and their properties; tests of goodness of fit; inference in the least square model

References

a) Goon, Gupta and Dasgupta- Fundamentals of Statistics
b) Mathai A. M & Rathie P. N- Probability & Statistics
c) Maddala, G.S. Introduction to econometrics
d) Kmenta, J. Elements of Econometrics
e) Johnston, J. Econometric Methods
f) Gujarati, D.N. Basic Econometrics

Group –B: **25 Marks (Written: 20, Internal Assessment: 05)**

1. General linear model: OLS Estimators and their properties; tests of goodness of fit; inference in the OLS model,
2. Some econometric problems:
3. A. Multicolinearity, heteroscedasticity, and auto-correlation (basic concepts, problems and remedial measures only)
   B. Dummy variables- Nature and use of dummy variables; case of dependent dummy variables, Dummy variable trap.
4. Simultaneous equations Models: Structural and Reduced form equations; identification problems.

References

g) Goon, Gupta and Dasgupta- Fundamentals of Statistics

h) Mathai A. M & Rathie P. N- Probability & Statistics
i) Maddala, G.S. Introduction to econometrics
j) Kmenta, J. Elements of Econometrics
k) Johnston, J. Econometric Methods
l) Gujarati, D.N. Basic Econometrics

Course No: ECO 202: Theories of Economic Growth 50 Marks 6 credits

This course will discuss basic and some typical theories of economic growth. * Solow model and endogenous growth theories are the two main pillar of the syllabus. * The understanding of economic growth will help us to understand the movements of macroeconomic variables more confidently. This course will give a broad idea about the measurement and causes of fluctuation in economic growth path. The macroeconomic variables and their behaviour can be vigorously grasped by the learners.

Group –A: 25 Marks (Written: 20, Internal Assessment: 05)

1. Growth models — Solow-Swan, Kaldor and Pasinetti, Joan Robinson
2. Technical Progress- Hicks, Harrod and Arrow
3. Convergence of Growth- Absolute v/s Conditional Convergence; β Convergence and σ convergence

References
Group- A

a) Sen, A.K. (1990), *Growth Economics*, Penguin Books.
b) Barro, R. and Sala- I-Martin, (2004*), Economic Growth (2nd* Ed), McGraw· Hill.
c) Jones, Charles. I (2002), Introduction to Economic Growth, W.W. Norton.
d) Solow R.M. (2000*), Growth Theory-An Exposition (* 2nd Ed), OUP,
e) Romer, D. (2001), *Advanced Macroeconomics (2nd Ed)*, McGraw· Hill.
f) Robert J. Barro and Xavier Sala-i-Martin (1992), 'Convergence', *Journal of Political Economy*, Vol. 100, No. 2 , pp. 223· 251.
g) Young, Higgins and Levy (2008), 'Sigma Convergence versus Beta Convergence', *Journal of Money,Credit and Banking*, Vol. 40, No. 5.

Group- B: 25 Marks (Written: 20, Internal Assessment: 05)

1. Endogenous Growth with human capital formation – one sector model.
2. Endogenous growth with technological change
3. Barro endogenous growth with government spending
4. Endogenous growth with natural and conservation capital
5. Overlapping Generations Model

References
Group-B

1) Barro and Sala-i-Martin,' Economic Growth', Mc.Graw Hill, 2004, 2nd ed.

2) David Romer, Advanced Macroeconomics, Mc.Graw Hill, 2001, 2nd ed.
3) Charles Jones,'Introduction to Economic Growth', W.W. Norton & Co. 2nd ed.
4) Paul M. Romer,'Endogenous Technological Change', JPE, 1990, Vol. 98
5) Robert J. Barro, 'Government Spending in a Simple Model of Endogenous Growth', JPE, 19990, Vol. 98

Course No: ECO 203: Environmental and Resource Economics 50 Marks 6 credits

Course Outcome:

After completion of this course, the students should be able to learn and understand different issues of environmental economics and resource economics. Some of the topics that will be covered in the course are: Environmental Externalities, Valuation of environmental goods. Market and non-market instruments for pollution control, Sustainable Development Management of natural resources like renewable, non-renewable and common property.

Group A: Environmental: 25 Marks (Written: 20, Internal Assessment: 05)

1. Economy- Environment Interaction, Environmental Externalities
2. Valuation of environmental goods.
3. Market and non-market instruments for pollution control, their relative effectiveness in LDCs
4. Economic Growth and Sustainable Development
5. National Income and Environmental Accounting

Group B: Resource Economics: 25 Marks (Written: 20, Internal Assessment: 05)

1. Renewable Resource Management
2. Exhaustible Resources
3. Common Property Resources

References (Gr. A and Gr. B):

a) Kolstad C D- Intermediate Environmental Economics, Oxford University Press, Second Edition, 2011.
b) Berck P and G. Helfand, The Economics of the Environment, First Edition, Addison-Wesley, 2011.
c) Hanley N., F. Shogran and B. White, Environmental Economics in Theory and Practice, McMillan, 2004.
d) Hanley N., F. Shogran and B. White, An Introduction to Environmental Economics, OUP, 2004.
e) Pearce D.W. and R.K Turner, Economics of Natural Resources and the Environment, Harvester Wheatsheaf. 1991.
f) Harris, J. M., & Roach, B. (2013). *Environmental and natural resource economics: A contemporary approach*. ME Sharpe.

Course No: C-ECO 204: Fundamentals of Economic Theory (CBCS) 50 Marks 4 credits

Course Outcome:

Since the students of inter-disciplinary departments are required to have knowledge on the application of economic subject it is desirable to construct the curriculum for them to provide basic knowledge on micro and macroeconomics. The course thus deals with aims and scopes of economics, the market behavior of economic agents like consumers and producers in the goods market and service markets, determination of consumer's willingness to pay for a good and producers' willingness to sell a good, discussion of firms' behavior to determine prices of the goods in different market structures, etc. On the other side it deals with process of calculating national income, identify its components, demonstrate circular flow of income, analyze the various income identities with government and international trade, demonstrate investment multiplier understand Say's law of market, classical theory of employment and Keynes objection to the classical theory, demonstrate the meaning and function of money, identifies types of banks, explain the meaning and function of commercial banks, illustrate how banks create credit, and suggest the instruments to control credit. It finally deals with international trade theories and their linkages with product and monetary sectors. The course will be helpful to the inter-disciplinary students in analyzing different facets of the Indian economy.

Group A: 25 Marks (Written: 20, Internal Assessment: 05)

1. Exploring the subject matter of economics

Scope and Method of Economics, Positive and Normative economics, Microeconomics and Macroeconomics.

2. Demand and Supply

Law of demand, Determinants of demand , derivation of demand curve,elasticities of demand; Law of supply and supply curve, Determination of equilibrium price

3. Production and Cost

The Production Process; TP, AP & MP and their relation; Costs in the short and the long run, Concept of Profit Maximisation

4. Market Structure

Types of Markets and their features-Perfect competition, Monopoly, Monopolistic competition and Oligopoly; Price and Output decisions of a competitive firm

Group B: 25 Marks (Written: 20, Internal Assessment: 05)

1. National Income and its Measurement

Methods of measurement of national income, relationship among Gross National Product, Gross Domestic Product, Net National Product, National Income and Personal Income

2. The Simple Keynesian Model

Aggregate expenditure and equilibrium output. Fiscal policy at work - the multiplier effect

3. Money and Inflation

Money and its functions, monetary institutions, monetary policy and credit creation, inflation and its control

8. International Trade

Comparative advantage and Gains from Trade; Balance of payments, exchange rate and its determination

References:

1) Lipsey and Crystal- Economics, OUP
2) Samuelson and Nordhaus, Economics, McGraw Hill
3) Pindyck and Rubinfeld-Microeconomics, Pearson
4) Dornbusch and Fischer- Macroeconomics, McGraw Hill

Course No: ECO 205: Development Economics –Theories 50 Marks 6 credits

Course Outcome:

This course is designed to learn the interrelationship between the process of globalization and that of development in general and in particular, to study the effect of globalization on poverty, employment and wage rate. Here, we would also discuss what drives different bilateral, multilateral agreements under the WTO regime. In this way we will learn how to look at a promise and then how to judge it from supporting facts.

Group A: Theories of Development: 25 Marks (Written: 20, Internal Assessment: 05)

1. Dual Economy
2. Sen's Measure of Disguised Unemployment
3. Agricultural and Industry interaction – Nurkse, Ranis-Fei model, Harrish- Todaro Model & Kaushik Basus's Formalization.
4. Technology & Solow Model
5. Human Capital & Growth- Lucas Model

Group B: Development under Globalisation: 25 Marks

(Written -20, Internal Assessment -05)

1. Growth and Crisis of Developing Countries under Globalization
2. Impact of Trade on Employment, Poverty and Income Inequality: The Wage-Gap Debate
3. Economic Integration: Regional Blocks, Multilateralism and WTO

References: Gruop A:

a) Blaug, M. (1983), Economic Theory in Retrospect, 4th Edition, Cambridge University Press, Cambridge
b) Dasgupta, A.K (1985), Epochs of Economic Theory, Basil Blackwell, Great Britain.
c) Erich Gundlach, (2007), The Solow Model in the Empirics of Growth and

Trade, Kiel Institute for the World Economy, Germany
d) Lucas, R. E. (1988). 'On the mechanics of economic development', Journal of Monetary Economics, 22, pp. 3-42.
e) Schumpeter, J.A. (1954), History of Economic Analysis, Harvard University Press,London

Gruop B:

a) Acharyya, R. And Kar, S.: International Trade and Economic Development, Oxford
b) Caves, R. E., Frankel, J.A. and Jones, R.W: World Trade and Payments- An Introduction, 9th Edition, Pearson.
c) Marjit, S.:International Trade and Economic Development- Essays in Theory and Policy, Oxford.
d) Krugman, P., Currency and Crises, MIT Press.
e) Krugman, P.R. and Obstfeld, M.: International Economics: Theory and Policy, 8th Edition, Pearson.
f) Marjit, S. and Acharyya, R.: International Trade, Wage Inequality and the Developing Economy: A General Equilibrium Approach, Springer.
g) Sikdar, S., Contemporary Issues in Globalization: An Introduction to Theory and Policy in India, Oxford.
h) Stiglitz, J.E and Charlton, A.: Fair Trade For All: How Trade Can Promote Development, Oxford

SEMESTER -III

Special Paper: Econometrics

Course No: ECO 301A: Econometrics I 50 Marks 6 credits

Crouse Outcome:

This course is the first course for the students opting for Econometrics as the special paper. This course is meant to learn the Linear Econometric Model when the basic assumptions of the Simple Model learnt in the general course in Semester II are violated. Students are expected to learn through this course the real-life problems of using a Simple Linear Regression Model. They also learn here different ways to solve those problems.

Group A: 25 Marks (Written: 20, Internal Assessment: 05)

1. Violation of Assumptions in Classical Linear Regression Model- Non-Zero Mean; Non-Normality; Autocorrelation-Causes, Consequences, Tests and Remedies; Heteroscedasticity-Causes, Consequences, Tests and Remedies;
2. Stochastic Regressors, Large Sample Properties, Method of Moments, Instrumental Variable Estimation Method
3. Multicollinearity-Causes, Consequences, Types of Multicollinearity: Enhancement synergism, Change in sign, Tests and Remedies: Relative importance explanatory variables in Multiple Linear Regression Model
4. Model Specification and Diagnostic Testing-Model Selection Criteria, Consequences and Tests of specification error, Nested and Non-Nested Models.

References:

a) Gujrati, D.: Basic Econometrics, Mc Grawhill Higher Education, 2003.

b) Judge, G.G., Hill, R.C., Griffiths, W.E.: Learning and Practicing Econometrics, Wiley, New York, 1993.

c) Maddala, G.S.: Introduction to Econometrics, 3rd edition, John Wiley & Sons Ltd, 2005. d) Johnston, J.: Econometric Methods, 3rd Edition, McGraw-Hill/Irwin; 4th edition, 1996. e) Greene, W.H.: Econometric Analysis, 4th edition, Pearson Education, 2000.

f) Judge, G.G., Hill, R.C., Griffiths, W.E, Lütkepohl, H., Lee, T.: Introduction to the Theory and Practice of Econometrics, Wiley, New York, Second Edition.

g) Johnston, J. and Dinardo, D.: Econometric Methods, Fourth Edition, McGraw-Hill, 2006.

h) Wooldridge, J.W: Introduction to Econometrics, South-Western, Division of Thomson Learning; International ed edition, 2005.

i) Kmenta, J. : Elements of Econometrics, Macmillan Publishing company, 1991.

j) Intriligator, M.: Econometric Models, Techniques and Application, Prentice Hall, Private India Ltd, New Delhi, 1980.

k) Perron,P.: The Great Crash, The Oil Price Shock and The Unit Root Hypothesis", Econometrica, vol.57 (6), pp1361 to 1401, 1989.

GROUP B: 25 Marks (Written: 20, Internal Assessment: 05)

Maximum Likelihood Estimator:Interpretation, Estimators for 2 Variable model, Properties of the Estimators, Extension to the K Variable CLRM and Generalised Regression Model, Interval Estimation and Hypothesis Testing, Distinction between Restricted and Unrestricted Maximum Likelihood Function, Likelihood Ratio Test.

Tests of Structural Change-The Chow Test, CUSUM, CUSUMSQ.

Dummy variables: Estimation and Interpretation, Dummy Variable Trap, Interaction Effect. Application of Dummy Variable (atleast one): Seasonal Analysis, Limited Dependent Variable model, Least Squares Dummy Variable (LSDV) model in Panel Data Analysis, Structural Break Analysis.

References:

a) Gujrati, D.: Basic Econometrics, Mc Grawhill Higher Education, 2003.

b) Judge, G.G., Hill, R.C., Griffiths, W.E.: Learning and Practicing Econometrics, Wiley, New York, 1993.

c) Maddala, G.S.: Introduction to Econometrics, 3rd edition, John Wiley & Sons Ltd, 2005.

d) Johnston, J.: Econometric Methods, 3rd Edition, McGraw-Hill/Irwin; 4th edition, 1996.

e) Greene, W.H.: Econometric Analysis, 4th edition, Pearson Education, 2000.

f) Judge, G.G., Hill, R.C., Griffiths, W.E, Lütkepohl,H., Lee,T.: Introduction to the Theory and Practice of Econometrics, Wiley, New York, Second Edition.

g) Johnston, J. and Dinardo, D.: Econometric Methods, Fourth Edition, McGraw-Hill, 2006.

h) Wooldridge, J.W: Introduction to Econometrics, South-Western, Division of Thomson Learning; International ed edition, 2005.

i) Perron,P.: The Great Crash, The Oil Price Shock and The Unit Root Hypothesis", Econometrica, vol.57 (6), pp1361 to 1401, 1989

Special Paper – Agricultural Economics

ECO 301B: Agricultural Economics I **50 Marks** **6 credits**

Course Outcome:

From this course we will learn how and why the process of analysis should be different in analyzing the features of backward agriculture from that of the advanced ones. It also discusses the transition of backward agriculture towards commercialization and the impact of globalization along with other newer arrangements like FDI, contract farming etc. upon it mainly from the theoretical point of view. It will help us to conduct or examine any survey of a developing countries' agricultural sector keeping in mind its special characteristics and before pooling and generalizing the available data, it will remind us to give importance to the differences among the peasantry not only in terms of regions or products but also in terms of class, techniques, institutional arrangements etc.

Group A: 25 Marks (Written -20, Internal Assessment -05)

1. Mode of Production in Agricultural Sectors and Transition to Capitalist Farming and Commercialisation of Agriculture

2. Structure of Backward Agriculture: Forced Commercein Semi-Feudal Agrarian System

3. Peasant Economy – Chayanov's Approach to Peasant Farming: Different Type of Peasants and Their Technology Adoption, Intra-Household relationship, Women in Agriculture

Group B: 25 Marks (Written -20, Internal Assessment -05)

4. Agricultural Planning and Polices In the Developing Countries: Some Theoretical Aspects.

5. Agriculture under WTO Agreements with Particular Reference to India

6. Recent Issues of Agricultural Development: Crop Insurance, Contract Farming, FDI in Retail Trade

References:

Group A:

a). Bhaduri, A.(1983), *The Economic Structure of Backward Agriculture*, Macmillan India Limited.

b). Ellis, Frank: Peasant Economics: Farm Households and Agrarian Development, Cambridge University Press.

c). Pingali, P.L. (1997), 'From subsistence to commercial production system: The transformation of Asian agriculture', *American Journal of Agricultural Economics*, 79(2), 628-634.

Group B:

a). Government of India (2014), *Report of the Committee to Review the Implementation of Crop Insurance Schemes in India*, Department of Agriculture &

Cooperation, Ministry of Agriculture, GOI, May.
b). Gulati, Ashok, Rajesh Mehta and Sudha Narayanan (1999), 'From Marrakesh to Seattle: Indian Agriculture in a Globalising World', *Economic and Political Weekly*, Vol. 34, No. 41, pp. 2931-2942.
c). Gulati, Ashok, P.K. Joshi, Maurice Landes, *Contract Farming in India: An Introduction*, *available at*http://www.ncap.res.in/contract_%20farming/Resources/1.Introduction.pdf
d). Nair, Reshmy (2010), 'Crop Insurance in India: Changes and Challenges', *Economic & Political Weekly*,February 6, Vol. xlv no 6.
e). Raju, S.S. and Ramesh Chand (2008), 'Agricultural Insurance in India Problems and Prospects', *NCAP Working Paper No. 8*, National Centre for Agricultural Economics and Policy Research (Indian Council of Agricultural Research), March.
f). Rao, Hanumantha C. H. (2001), 'WTO and Viability of Indian Agriculture', *Economic and Political Weekly*, Vol. 36, No. 36, pp. 3453-3457.
g). Sarkar, Abhirup (2013), 'Understanding FDI in Retail, What Can Economic Principles Teach Us?' *Economic & Political Weekly*, Vol. 48, Issue No. 01, 05 Jan

Special Paper: Econometrics

Course No: ECO 302A: Econometrics II 50 Marks 6 credits

Course Outcome:

At the end of course student will be able to: learn the basics of time series data and panel data, understand the stationary time series models and advantages of panel data, perform forecasting with time series data, fixed effects, random effects model, LSDV model and dynamic panel also, apply time series techniques to state ARCH and multivariate time series, conduct research on panel data after knowing panel data handling, and opportunities for employability in marketing, finance and other business houses.

Group –A:25 Marks (Written ·20, Internal Assessment ·05)

1. Univariate Time Series Modelling, AR, MA and ARIMA Process
2. Test of Stationarity – Unit Root Test, Augmented Dickey Fuller Test
   Non Stationary Series: Integrated Series
3. Distributed Lag Model
   Autoregressive Distributed Lag Models Exogeneity
   Cointegration and Error Correction
4. Modelling Volatility: ARCH Models

References:

a) Johnston & Dinardo (2006), *Econometric Methods*, McGraw Hill International Edition.
b) Green (2009), *Econometric Analysis*, *Pearson Education*.
c) Enders, Walter (2004):*Applied Econometric Time Series*, John Wiley.
d) Maddala (2009), *Introduction to Econometrics*, John Willy and

Sons (Asia) Pte. Ltd.

Group–B: Panel Data 25 Marks 6(Written· 20, Internal Assessment· 05)

1. Panel Data: Types; AdvantagesandDisadvantages
3. Panel Data Regression Model· Simplest Case
4. Two Extension of Simple Model· Fixed Effects Model(FEM) v/s Random Effects Model(REM)
5. Estimation of REM
6. Estimation of FEM· by Least Square Dummy Variable Method (LSDV)
7. Within· and· Between· Groups Estimators
8. Dynamic Panel Data Model(Basic Concepts)

References:

Group–B

a) Baltagi(2008),*Econometri cAnalysis of Panel Data*, JohnWiley.

b) Johnston & Dinardo(2006),*Econometric Methods*, McGraw Hill International Edition.

c) Green(2009),*Econometric Analysis*,PearsonEducation.

d) Wooldridge(2002),*Econometrics Analysis of Cross Section and Panel Data*, MIT-Press, Cambridge.

Special Paper – Agricultural Economics

ECO 302B: Agricultural Economics II 50 Marks 6 credits

Crouse Outcome:

This paper of Agricultural economics concerns itself with the study of backwardness, growth with equity and relation between farm size and productivity. On completion of the course students would be able to understand the status of Indian agriculture, realize the need to exploit and utilize through development and improvement of production techniques, Gain knowledge of the causes of regional variations in productivity and production and suggest appropriate measures for the whole economy.

Group –A: 25 Marks (Written · 20, Internal Assessment · 05)

1. Indian Agriculture: Issues and Priorities
2. Growth and Equity in Indian Agriculture.
3. Farm size, Productivity and Efficiency in Indian Agriculture.

References

: **Group –**

A:

a) Gulati, A., Mauruce R. Landes, Ganguly, K.: Indian Agriculture: Managing Growth with Equity, A publication of the Agricultural & Applied Economics Association, 2009.

b) b) Dandekar, M.L.: Growth and Equity in Agriculture, International

Journal of Agricultural Economics, 1987.

c) Sen, A.K. and Rudra, A. : Farm size and labour use: Analysis and policy, Economic & Political Weekly, *Vol. 15, Issue No.5-6-7, February 16, 1980.*

d) Rudra, A.: Indian Agriculture: Mythes and realities, 1984.

e) Ramesh Chand, P A, Lakshmi Prasanna, Aruna Singh: Farm Size and Productivity: Understanding the Strengths of Smallholders and Improving Their Livelihoods, Economic & Political Weekly Supplement, June 25, 2011, vol. XLVI, nos. 26 & 27.

f) India: Issues and Priorities for Agriculture, http://www.worldbank.org/en/news/feature/2012/05/17/india-agriculture-issues- priorities.

Group –B: 25 Marks (Written: 20, Internal Assessment :05)

1. Institutional aspects of agricultural development in India.
2. Econometric Framework for Analyzing Farmers Production Decisions
3. Role of FDI in agriculture with particular reference to developing economies

References*:* Group –B:

a) Asoke Rudra, *Indian Agriculture: Mythes and realities,* 1984.

b) P.C.Joshi, *Institutional aspects of agricultural development,* 1987.

c) A.Baidyanathan, Labour use in rural India, *EPW.*

d) Dharm Narain, K.N. Raj, Amartya Sen and C. H. Hanumantha Rao (eds.),(1988) Studies on Indian Agriculture, Oxford University Press, New Delhi.

e) Krishna. K. L. eds (1997), Econometric Application in India, Oxford University Press, New Delhi.

Special Paper: Econometrics

ECO 303A: Econometrics III 50 Marks 6 credits

Course Outcome:

After taking the course, the students are expected to grasp the techniques like Generalised Linear Regression Model and Its Applications, GMM and its application in Dynamic Panel Data Model, Principal Component Analysis, and Simultaneous Equation Methods. Students will be able to learn when and how to apply the above econometric methodologies to analyse economic problems.

Group–A: 25 Marks (Written· 20, Internal Assessment· 05)

1. Generalised Linear Regression Model and Its Applications 1.1.Pooling of Cross Section and Time Series Data 1.2.Error Component Model 1.3.Seemingly Unrelated Regression

2. GMM and its application in Dynamic Panel Data Model.

3. Advanced topics in limited dependent variables models- multinomial and ordered Logit, Probit and Selection models

References:

a) Kementa J., Elements of Econometrics,Macmillan Publishers Limited,1986
b) Baltagi(2008),*Econometric Analysis of Panel Data*, John Wiley.
c) A. Collin Cameron and P.K.Trevedi. Micro Econometric Methods and Applications, Cambridge University Press, 2005
d) Johnston & Dinardo(2006),*EconometricMethods*,McGrawHillInternationalEdition.
e) Green(2009),*Econometric Analysis*, PearsonEducation.
f) Wooldridge (2002),Econometrics Analysis of Cross Section and Panel Data, MIT-Press, Cambridge.

Group –B: 25 Marks (Written · 20, Internal Assessment · 05)

1. Principal Component Analysis.
2. Limited Dependent Variables – Linear Probability Model, Logit Model, Probit Model and Tobit Model
3. Simultaneous Equation Methods: Single Equation Methods of Estimation –OLS, ILS, LIML, 2SLS; System Methods of Estimation – 3SLS, FIML

References :

a) Kementa J., Elements of Econometrics, Macmillan Publishers Limited, 1986
b) Johnston & Dinardo (2006), *Econometric Methods*, McGraw Hill International Edition.

c) Green W H (2009), *Econometric Analysis*, Pearson, 2007.
d) Johnston J. *Econometric Methods*, McGraw-Hill Inc.,US, 1984.
e) Koutsoyiannis A., Theory of Econometrices, Palgrave Macmillan Limited, 2001. f) Maddala G S, Introduction to Econometrics, Wiley India Pvt. Ltd, 2012.
f) Pindyck R.S. and D.L. Rubinfeld, Econometric Models and Economic Forecasts, Mc·GraW Hill International Edition.
g) Richard A.J. and D.W. Wichern, Applied Multivariate Statistical Analysis, Pearson
h) Hair, Black, Babin, Anderson and Tatham, Multivariate Data Analysis, Pearson Education.
i) Gujrati D and Sangeetha, Basic Econometrics,The McGraw Hill Companies, Fourth Edition.
j) Intriligator M. D., Econometric Models, Techniques, and Applications, Prentice Hall,

Special Paper – Agricultural Economics

ECO 303B: Agricultural Economics III **50 Marks** 6 credits

Course Outcome:

After taking the course, the students are expected to grasp thoroughly the following that are used to analyse the problems of agricultural economics: Production function analysis, Pricing of agricultural products, Agricultural marketing: Farm Management, Applications of operation research in agricultural economics. At the end of course student will be able to: understand agriculture as the foundation of economic growth and development, analyses the progress and changing nature of agricultural sector. Opportunities for employability in the "Agricultural Research Institutions" and different departments related to Indian agriculture.

Group A: Analysis of Agricultural Production Behaviour : 25 Marks (Written: 20, Internal Assessment: 05)

1. Production function analysis in agricultural production behaviour, Economics of supply of agricultural products. Theories of marketable surplus.
2. Theory of demand for agricultural products. Elasticities of demand for agricultural products, factors affecting demand for agricultural products with particular reference to India.
3. Pricing of agricultural products· intertemporal behaviour of prices, pricing efficiency, instability in agricultural prices, Futures market.
4. Agricultural marketing –Marketing efficiency, Marketing margins, price spreads, market infrastructure.

Group B: Farm Management: 25 Marks (Written ·20, Internal Assessment ·05)

1. Farm Management – Meaning and scope, economic principles applied to farm management
2. Farm Planning – Good farm plan, farm budgeting
3. Applications of operation research techniques in farm management
4. Farm Efficiency Measures
5. Management of farm resources

References: Group A:

a. K. L. Krishna, Econometric Applications in India, OUP.
b. A.N. Sadhu and A.Singh, Fundamentals of Agricultural Economics, Himalaya Publishing House.
c. Schmidt P, 1986, Frontier Production Functions, Econometric Reviews, 4,
d. Richard T. Woodward, John B. Penson, C. Parr Rosson, Oral T. Capps, Introduction to Agricultural Economics, Pearson (2009), 5th Edition
e. S.Ghatak and K. Insergent, Agriculture and Economic Development by, Select Book Service Syndicate, 1984.
f. World Bank 1996. Managing price risks in India's liberalized agriculture: can futures markets help? Report No.15453·IN. Washington, DC., World Bank.
g. Vijaya Bhaskar, P. & Mahapatra, P. 2003. Derivatives simplified: an introduction to risk management. New Delhi, India, Response Books.
h. S S Acharya and N.L. Agarwal (1994), Agricultural Prices· Analysis and

Policy, Oxford and IBH, New Delhi.

Group B:

a) A. A. Rane, A. C. Deorukhkar, Economics of Agriculture, Atlantic
b) Rosson C. Parr III, Capps Oral Jr., Penson John B. Jr., Introduction to Agricultural Economics, Prentice Hall.
c) Reddy S.S. , P. Raghu Ram, TVN Sastry, Agricultural Economics, Oxford and IBH Publishing Co. New Delhi.

C-ECO 304: Contemporary Issues of Indian Economy (CBCS) **50 Marks 6 credits**

Course Outcome:

As the paper has been designed for the students from inter-disciplinary departments it offers overall structure of the applied Indian economy from various perspectives. It deals with trends and structural breaks in the growth rate of income, employment, savings and investment during the post independence period. It also deals with the contributions of different sectors into the aggregate economy along with financial sectors, international trade, foreign capital and natural resources, among others. Finally it deals with the role of public sector in overall economic growth, governance and developments in the realm of different reform programmes initiated in economic, social and environmental fronts. The students from the inter-disciplinary departments will be immensely benefitted from this course in terms of having inter departmental resources along with future research programmes with the inter related subjects.

Group –A: 25 Marks (Written -20, Internal Assessment -05)

1) Macro Perspective of the Indian Economy – growth, structural change, saving & investment and inflation
2) Economic Reforms and its impact on Indian Economy- Agriculture, Industry and Services
3) Government budget, fiscal deficit and public borrowing in India
4) Resource & Environmental Degradation and Sustainable Growth of India

Group –B: 25 Marks (Written: 20, Internal Assessment: 05)

1. Employment in India – Nature and trend of employment, the problem of unemployment, Growth of Informal sector
2. Trade Liberalisation in India- Balance of Payments, International Capital Movement and FDI, Convertibility of foreign currency.
3. Financial Sector Reforms in India- Banks & Non-Bank Financial Institutions, Money and Capital Market.
4. Poverty and Inequality in India – Measurement of poverty and inequality: Alternative approaches, trends of poverty and inequality.

References:

a) Dutt and Sundaram(2015), Indian Economy.
b) Kapila, Uma (ed) Indian Economy since Independence, Academic Foundation,
c) Bhagwati, J. 2004; In Defense of Globalization, OUP.
d) Misra S.K and Puri V.K., Indian Economy, Himalaya Publishers
e) Joshi, V.& I. M. D. Little (2003), *India's Economic Reforms—1991-2001*, Oxford.
f) Ahluwalia, I.J. and I.M.D. Little (2003), *India's Economic Reforms and Development—Essays for Manmohan Singh*, Oxford, 2003.
g) Jalan, B. (ed) "The Indian Economy – Problem and Prospects", Penguin Books.
h) India Development Reports (2015), IGIDR, Oxford University Press.

Special Paper: Econometrics

ECO 305A: Econometrics IV 50 Marks 6 credits

After taking the course, the students will be equipped with various techniques to handle econometric data and will also have total grapes over applied econometrics. The course will provide sufficient knowledge regarding the econometric applications to households such as demand analysis, estimation of consumption function, family budget study etc. Completing this course will also provide sufficient knowledge over econometric applications to firms, money market, labour economics, investment function etc. Again, this course also contains important aspects in the construction of HDI, evaluating structural breaks, trends in macro econometric model construction and RBI- MSE macro model for the Indian economy.

Group –A: 25 Marks (Written: 20, Internal Assessment: 05)

Application of Econometric Models:
Application of Single Equation Estimation:

1. Application to Households – Demand Analysis, Consumption Function Estimation, Family Budget Studies & Engels Law.
2. Application to Firms – Production Function and Cost Functions, Growth & Profitability, Employment Function and Economic Capacity Utilisation.
3. Application to Money Market – Demand for Money
4. Application to Labour Economics.
5. Estimation of Investment and Consumption Function.
6. Estimation of Export- Import Function

Group –B: 25 Marks (Written: 20, Internal Assessment: 05)

1. Evaluating Structural Breaks: An application of dummy variable model
2. Measuring Economic Inequality
3. Construction of Human Development
4. The Trends in Macroeconometric Model Construction
5. Simultaneous – Equations Models of money Demand and Supply.
6. System of Demand Equations- Linear expenditure system.
7. RBI-MSE Macro Model for Indian Economy.

References:

Michael D. Intriligator, Econometric Models, Techniques, and Applications Julia Hebden, Applications of Econometrics
M. Desai, Applied Econometrics
Kerry Patterson, An Introduction to Applied Econometrics – A Time Series Approach

Special Paper – Agricultural Economics

ECO 305B: Agricultural Economics IV 50 Marks 6 credits

Course Outcome:

This course is the last course for the students opting for Agricultural Economics as the special paper. This course is meant for teaching some special topics of agricultural economics, like nature of growth and fluctuation in Indian agriculture, extent of labour absorption in agriculture, terms of trade and finally the necessity and possibility of non-farm employment in the rural economy of India. Students are expected to learn through this course the real problems of Indian agriculture and possible ways to solve those problems.

Group–A: 25 Marks (Written: 20, Internal Assessment: 05)

1. Economic Transformation and the Rural Non-farm Sector: The Indian Perspectives
2. Farm-Nonfarm Linkages
3. Institutional aspects of agricultural development

Group–B: 25 Marks (Written: 20, Internal Assessment: 05)

1. Price and terms of trade in Indian Agriculture
2. Growth and Fluctuation of Indian Agriculture
3. Labour absorption in agriculture.

Reference*:*

Group–A

a) P.C.Joshi,*Institutionalaspectsofagriculturaldevelopment,*1987.
b) A. Baidyanathan, LabouruseinruralIndia, *EPW*.
c) Anne BoothandR.M.Sundaram,*Labourabsorptioninagriculture.*
d) P.Das,RuralNon‐FarmEmploymentinIndia,2011
e) A. K. Sen,*Employment,technologyanddevelopment*.
f) A. Mitra,*Termsoftradeandclassrelations.*
g) B.S.Tyagi,FarmpriceandclassbiasinIndia,*EPW*,Sep1979.
h) KahlonandTyagi,Intrasectoraltermsoftrade,*EPW*,Dec.1980.
i) Nurul Islam (1997), The Nonfarm Sector and Rural Development, Food, Agriculture and the Environment Discussion Paper # 22, IFPRI, Washington, D.C.
j) Frank Ellis (2000), Rural Livelihoods and Diversity in Developing Countries, CUP, Cambridge. S Haggblade, P Hazell and T Reardon (eds.) (2007), Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World, OUP, New Delhi.
k) Haggblade, Steven, Jeffrey Hammer and Peter Hazell (1991), "Modeling Agricultural Growth Multipliers", American Journal of Agricultural Economics, Vol. 73, No. 2, May.
l) Benjamin Devis et al. (2002), Promoting Farm/Non-farm Linkages for Rural Development, Food & Agriculture Organisation, Rome, Chapters 1 and 2.

Group B

a) Gulati, A., Mauruce R. Landes, Ganguly, K.: Indian Agriculture: Managing Growth with Equity, A publication of the Agricultural & Applied Economics Association, 2009.

b) Dandekar, M.L.: Growth and Equity in Agriculture, International Journal of Agricultural Economics, 1987.

4. Shah, C.H.: Growth and Inequality in Agriculture, International Journal of Agricultural Economics, 1986.

a) Sen, A.K. and Rudra, A. : Farm size and labour use: Analysis and policy, Economic & Political Weekly, *Vol. 15, Issue No.5-6-7, February 16, 1980.*

b) Rudra, A.: Indian Agriculture: Mythes and realities, 1984.

c) Ramesh Chand, P A, Lakshmi Prasanna, Aruna Singh: Farm Size and Productivity: Understanding the Strengths of Smallholders and Improving Their Livelihoods, Economic & Political Weekly Supplement, June 25, 2011, vol. XLVI, nos. 26 & 27.

SEMESTER -IV

Course No: ECO 401: Computer Application in Economics (Computer Practical)

50 Marks 6 credits

Course Outcome:

In Analytics the knowledge of econometric used rigorously and can create a huge chances of employability.

1. Use of Computers through programmes: Computer Languages: FORTRAN, C etc.: Some simple programming problems (Sorting, Calculation of A.M., S.D., simple regression etc.).
2. Data Analysis with MS-Excel
3. Advanced packages: Introduction SPSS, STATA and EVIEWS
4. Econometric Applications

(i) Algorithms for least square regression (multivariable).
(ii) Maximum likelihood.
(iii) Non linear Estimations
(iv) Time series analysis – AR, MA, ARMA. AND ARIMA.
(v) Panel data Analysis
(vi) Logit and Probit Analysis

References:

a. McCormick, K, et al (2017), SPSS Statistics for Data Analysis and Visualzation, John Willy and Sons
b. M. Pal, Fortran 77, Asian Books Pvt. Ltd, 2003
c. Balagurusami E, Programming in ANSI C, Tata McGraw Hill, 2002.

Course No: ECO 402: Development Economics: Experiences 50 Marks 6 credits

Course Outcomes:

At the end of course student will be able to:

- Learn the concepts of development economics.

Understand what makes underdevelopment persist and what helps development succeed.

- Learn the diverse dimension and measures of development
- Ability to apply the development theories in microeconomic analysis to issues of development in poor countries, including the study of household decisions and the analysis of institutions and norms influencing development.
- Familiar with cutting edge research topics in the field.
- Improvement in the analytical ability and their access to publishing on academic journals.

Group- A: 25 Marks (Written: 20, Internal Assessment: 05)

1) Review of progress in rural industrialisation and rural non-farm employment in India.
2) Informal Sector and Social Protection
3) Food security and Nutritional Security in India.

References:

Group A:

a) Srivastava, R. (2011), 'Social Protection for Workers in India…', Keynote paper, 53rd Conference, ISLE.
b) Das, P., *Rural Non-Farm Employment in India*, Pattern of Growth and Determinants, Firma KLM Pvt. Ltd., 2011.
c) S. Mukhopadhyay & C.P. Lim, Rural non-farm activities in the Asian region: An Overview from S. Mukhopadhyay & C.P. Lim (ed) 1985.
d) Kanan, K.P., Sribastava, Sengupta (2006), 'Social Security for unorganised sector: A major national initiative', EPW, August 12.
e) NCEUS (2007), 'Social security for Unorganised Workers', New Delhi, May.
f) NCEUS (2009), 'The Challenge of Employment : An informal economy perspective', Government of India and New Delhi: Academic Foundation.

Group B: 25 Marks (Written: 20, Internal Assessment: 05)

1) Evaluation of policies and programmes for rural development.
2) Decentralised Planning
3) Inclusive Growth and Development of Backward regions

References: *Group B:*

V.M. Rao, 'Evolution of rural development programmes in India', in U.G. Jha (ed), Rural Development in India Problems and Prospects, Anmol publications Pvt. Ltd., 1999.

Course No: ECO 403: Finance 50 Marks 6 credits

Course Outcome:

Financial economics examines the economic principles that determine the allocation of resources through time in market economies. It uses supply and demand relationships to value capital assets (or projects more generally). Upon successful completion, students will have the knowledge and skills to understand how securities are priced and affected by the institutional arrangements in securities markets, understand how security prices are determined in the Capital Asset Pricing Model and the role played by the assumptions in the model, etc.

In this course we will discuss in detail the federal structure, spending and the importance of Govt. in this era of liberalization. From this students will not only learn to analyse the present fiscal policy, its changing paradigm upon the overall economy but also allows them to analyze in what extent the government should intervene into the economic activities.

Group A: Public Finance 25 Marks (Written -20, Internal Assessment -05)

1. Role of Govt. in the Era of Liberalisation
2. Analysis of Fiscal Policy and Public debt from the Macroeconomic Perspective
3. Fiscal Federalism

Group B: Financial Economics 25 Marks (Written -20, Internal Assessment -05)

1. Financial instruments- Bonds, stocks, mortgages and derivatives; Primary and secondary stock markets.
2. Corporate financial statement analysis.
3. Portfolio Management-Concept of Fundamental Analysis, Technical Analysis, Efficient market Theory; Portfolio Analysis and Portfolio Selection, Capital Asset Pricing Model.
4. Techniques of Capital Budgeting-Capital Budgeting Process, Project Classification, Investment criteria, Net Present Value, Benefit Cost Ratio, Internal Rate of Return.

References: Group A:

a) Bagchi, A. (Ed.): Readings in Public Finance, Oxford.
b) Ghosh, A. and Ghosh, C: Economics of the Public Sector, PHI.
c) Mundle, S. (Ed.): Public Finance: Policy Issues for India, Oxford.
d) Rakshit, M.: Money and Finance in the Indian Economy, Oxford.
e) Rakshit, M. (1991), "The Macroeconomic Adjustment Programme A Critique", *EPW*, August 23, pp. 1977-88.
f) Rakshit, M. (1994), "Money and Public Finance under Structural Adjustment: The Indian Experience", *EPW*, April 16-23, pp. 923-35.
g) Rakshit, M. (1995), "Puzzles in Budgetary Policies", *EPW*, May 6-13, pp. 1061-66.

Group B:

a) Chandra, P.: Financial Markets, Tata McGraw□Hill Education, Second edition, 2008.
b) Damodoran A., Valuation: Security Analysis for Investment and Corporate Finance, John Wiley and Sons, 2006.
c) Farrell, Jr. J.L., Portfolio Management, Theory and Application, Second edition, McGraw□ Hill, 1997.
d) Francis, J.C. Investments□ Analysis and Management, McGraw□Hill, 1991.
e) Kevin, S.: Portfolio Management, Prentice Hall of India, 2001.
f) Stephen A. Ross, Randolph Westerfield, Bradford D. Jordan: Fundamentals of Corporate Finance, Richard D Irwin, 1998.

Course No: ECO 404: Indian Economics-II 50 Marks 6 credits

Course Outcome:

The course is ccritically analyzing the issues, challenges and opportunities of development experiences of Indian economy. By this the students will be able to understand the current economic scenario and their routes in history.

Group A: Theories of Development 25 Marks

(Written: 20, Internal Assessment: 05)

Growth, Break and Fluctuations in the Indian Economy: Nature and Causes Human Development in India and different states of it: Methodologies of measurement and their applications Poverty and Inequality in India: Methodologies of measurement and their applications Distributed Lag Model.

Group B: 25 Marks (Written: 20, Internal Assessment: 05)

1. Trade Liberalisation in India- Balance of Payments, International Capital Movement and FDI, Convertibility of foreign currency.
2. Public Finance in the context of India's economic development.
3. Green Growth and Sustainable Development in India

References (Gr.B)

1. Rao, M. G. (2017). *Public Finance in India in the Context of India's Development* (No. 17/219).
2. Banerjee, S., & Chakrabarti, A. (Eds.). (2014). *Development and Sustainability: India in a Global Perspective*. Springer Science & Business Media.
3. Uma, K. (ed.) Indian Economy since Independence, Academic Foundation.
4. Tendulkar, S. D. (2003). *Reintegrating India with the world economy*. Peterson Institute.

Course No: ECO-405: Dissertation 50 Marks 6 credits

50 Marks (Paper -30, Viva -20)

Course Outcome:

It helps to develop the research ability among the students.