

DEPARTMENT OF ECONOMICS
KURUKSHETRA UNIVERSITY, KURUKSHETRA
(Established by the state Legislature Act –XII of 1956)

PROGRAM NAME: MA ECONOMICS

1. ABOUT THE PROGRAM

Overtime, the global economic environment has become increasingly complex and poses a myriad of new challenges for policy and data analysts and professionals in all fields. Do product/factor/financial markets matter for aggregate productivity? Why do similar goods have different prices across stores? How do financial frictions amplify recessions? What is the impact of innovation shocks on asset prices and the economy? What the aging and slow growing population do to our economy? What drives wealth inequality? Why are there gender and racial wage gaps? How does international trade affect the environment? The study of Economics considers broad ranging real world issues such as these. The ability to respond to rapid changes in this environment requires a lucid understanding of the economic forces that affect economic outcomes. The M.A. program provides a technical and rigorous approach to the study of economics. The course seeks to cultivate the sound theoretical, analytical and critical skills relevant to economic analysis thereby helping students develop the ability to think like an economist.

2. PROGRAM OUTCOMES

1. KNOWLEDGE

Demonstrate knowledge of historical emergence, questions asked, and distinctive contributions of the social science disciplines to the analysis of human behavior and social issues.

2. PROBLEM SOLVING

Visualize, conceptualize, articulate, and solve complex problems through experimentation and observation using theoretical framework of social science disciplines.

3. CRITICAL THINKING

Critically analyze everyday problems faced by the society, evaluate specific policy proposals, compare arguments with different conclusions to a specific societal issue, and assess the role played by assumptions in such arguments.

4. SCIENTIFIC ENQUIRY

Develop the capability of defining problems, formulate hypothesis, collect relevant data, develop empirical evidence and interpret the results of such analyses.

5. USAGE OF ANALYTICAL TOOLS

Develop the ability to apply appropriate quantitative/qualitative techniques used in social science disciplines along with ICT, softwares etc.

6. SPECIALIZATION AND EMPLOYABILITY

Develop deeper understanding, creativity, originality, analytical and critical skills in chosen specialized areas of social science disciplines leading to employability.

7. INTERDISCIPLINARY KNOWLEDGE & ADAPTATION

Enhance the ability to integrate as well as synthesize the acquired knowledge within the social sciences and beyond.

8. SELF DIRECTED LEARNING

Develop the ability to work independently as well as effectively in the changing environment.

9. ETHICS

Articulate and apply ethics, values and ideals that demonstrate awareness of current societal challenges.

10. LEADERSHIP

Build skills to work as part of a team and lead others, setting directions and formulating inspiring vision.

11. COMMUNICATION

Communicate conclusions, interpretations and implications clearly, concisely and effectively, both orally and in writing for different types of audiences.

12. PROJECT MANAGEMENT

Use investigative skills necessary for conducting disciplinary- appropriate projects/ research documents/term papers etc.

3. PROGRAM SPECIFIC OUTCOMES (PSOs)

After completing the M.A Economics program, the students will be able to:

PSO1: Develop the powers of inquiry, critical analysis, logical thinking, and ability to apply theoretical knowledge to current issues of policy and practice in economics.

PSO2: Learn and apply alternative statistical, mathematical and econometric tools to address policy issues related to competition, growth, fiscal matters, environment, financial markets, labour, infrastructure, agriculture, population, trade and welfare both in India as well as Haryana.

PSO3: Develop and demonstrate fundamental in-depth knowledge and understanding of the theories, postulates, methods, principles, concepts, values, substantive rules of core as well as applied areas of Economics.

PSO4: Identify, coherently explain and synthesize core and advanced economic concepts including economic models to analyze the choices made by consumers, investors, firms, and governments.

4. Duration, Credits and Evaluation Scheme for M.A. Economics w.e.f 2020-21

- The M.A. Economics Course has been divided into 4 Semesters spread over 2 years.
- Every Student of M.A. Economics Course has to pass 88 credits as described under:

CORE CREDITS	52	Semester I = 12 Semester II = 12 Semester III = 16 Semester IV = 12
ELECTIVE COURSE CREDITS	32	Semester I = 08 Semester II = 08 Semester III = 08 Semester IV = 08
OESS CREDITS	04	Semester II = 02 Semester III = 02
TOTAL	88	88

- Maximum Marks of a Course: 100 Marks**

External: 80 Marks

Internal Assessment: - 20 Marks (Division of Marks as given below)

- One Test/Seminar/Assignment (For each Paper) : 50%**
- One Test/Seminar/Assignment (For each Paper) : 25%**
- Attendance : 25%**

Marks of attendance will be given as under:

- (1) 91% onwards: 5Marks (2) 81% to 90% :4Marks(3) 75% to 80%: 3Marks (4) 70% to 74% :2*Marks
(5) 65% to 69%: 1*Marks

* For students engaged in co-curricular activities of the University only/ authenticated medical grounds duly approved by the concerned Chairperson.

5. Dissertation

a. **Dissertation** is an optional paper in 4th semester and will be allocated to students who had opted for the Course on “Research Methodology” in their 3rd Semester.

b. **Topic** for the Dissertation can either be selected by the Student or suggested by the Faculty on the issues related to Specialization Elective Course or Core Courses or latest developments, or current issues in Economics at the beginning of the Third Semester.

c. **Submission of Dissertation** by the Students to the Department shall either be before the end of the Fourth Semester [i.e., on or before the last working day of the Semester].

d. **Dissertation weightage**

Internal Assessment (based on the presentation by the candidate)	20 marks
External evaluation	50 marks
Viva-voce	30 Arks

6. Course Outcomes and Mapping Matrix

1. Each paper of the M.A. Economics Course results in four Course/Learning Outcomes (COs) which are broadly mapped or associated with POs as well as PSOs.
2. Mapping is a process of representing the correlation between COs and POs, COs and PSOs in the scale of 1 to 3 as follows (Table 1):

Table 1: Scale of mapping between COs and Pos & Cos and PSOs

Scale 1	If the contents of course have low correlation (i.e. in agreement with the particular PO to a small extent) with the particular Programme outcome
Scale 2	If the contents of course have medium correlation (i.e. in agreement with the particular PO to a reasonable extent) with the particular Programme outcome
Scale 3	If the contents of course have strong correlation (i.e. in agreement with the particular PO to a large extent) with the particular Programme outcome

7. Revised Scheme of Examination and Syllabi of MA Economics under CBCS/LOCF w.e.f 2020-21 in phased manner for the regular students of Department of Economics, KUK.

MA ECONOMICS PART-I SEMESTER-I (W.E.F. 2020-21)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 001	Micro Economic Analysis-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC- 002	Macro Economic Analysis-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -003	Mathematics for Economists	4	4	½ hrs/G	-	80	20	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -014	Public Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -015	Financial Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -016	Demography-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 017	Economics of Infrastructure-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -018	Economics of Insurance-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -019	Economics of Labour-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -020	Behavioural Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -021	Mathematical Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -022	Economy of Haryana-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
Total						500			

Note: Students are required to select any two (02) elective papers. The students will select the same corresponding papers in Semester II. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 12
Optional Credits: 08

MA ECONOMICS PART-I SEMESTER-II (W.E.F. 2020-21)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 004	Micro Economic Analysis-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC- 005	Macro Economic Analysis-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -006	Statistics for Economists	4	4	½ hrs/G		80	20	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -023	Public Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -024	Financial Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -025	Demography-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 026	Economics of Infrastructure-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -027	Economics of Insurance-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -028	Economics of Labour-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -029	Behavioural Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -030	Mathematical Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -031	Economy of Haryana-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
OESS (1 to 10)	Candidate is required to take one Option Elective, other than Economics, from the Common Lists of Papers of Social Sciences (Syllabus enclosed in the end)	2	2	½ hrs/G	-	50	-	50	2 Hrs.
Total						550			

Note: Students are required to select any two (02) elective papers. The students will select the same corresponding papers as in Semester I. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 12

Optional Credits: 08+02

MA ECONOMICS PART-II SEMESTER-III (W.E.F. 2021-22)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 007	International Trade and Finance-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC-008	Economics of Growth and Development-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -009	Indian Economic Policy-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -010	Practical: Statistical Software for Data Analysis and Project Work	4	-	-	6	Practical viva-voce 20	Practical File and Project 80	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -032	Economics of Environment and Social Sector-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -033	Econometrics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -034	History of Economic Thought-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 035	Economics of Agriculture-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -036	Welfare Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -037	Industrial Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -038	Financial Markets and Institutions-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -039	Economics of Gender and Development-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -040	Economics and Law-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -041	Research Methodology	4	4	½ hrs/G	-	80	20	100	3Hrs.
OESS(11 to 20)	Same Note as in Sem. II	2	2	½ hrs/G	-	50	-	50	2Hrs.
Total						550			

Note: 1. Students are required to select any two (02) elective papers. The students will select the same corresponding papers in Semester IV. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 16

Optional Credits: 08+02

2. The students who opt for M-ECOE-041 (Research Methodology) are bound to opt M-ECOE-051 (Dissertation) in their 4th semester.

MA ECONOMICS PART-II SEMESTER-IV (W.E.F. 2021-22)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 011	International Trade and Finance-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -012	Economics of Growth and Development-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -013	Indian Economic Policy-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -042	Economics of Environment and Social Sector-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -043	Econometrics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 044	History of Economic Thought-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -045	Economics of Agriculture-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -046	Welfare Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -047	Industrial Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -048	Financial Markets and Institutions-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -049	Economics of Gender and Development-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -050	Economics and Law-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -051	Dissertation	4	4	½ hrs/G	-	80	20	100	---
Total						500			

Note: 1. Students are required to select any two (02) elective papers. The students will select the same corresponding papers as in Semester III. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 12 Optional Credits: 08

2. The students who had opted for M-ECOE-041 (Research Methodology) in 3rd semester are bound to opt M-ECOE - 051 (Dissertation) in their 4th semester.

DETAILED SYLLABI AND MAPPING MATRIX

MA ECONOMICS PART-I SEMESTER-I (W.E.F. 2020-21)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 001	Micro Economic Analysis-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC- 002	Macro Economic Analysis-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -003	Mathematics for Economists	4	4	½ hrs/G	-	80	20	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -014	Public Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -015	Financial Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -016	Demography-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 017	Economics of Infrastructure-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -018	Economics of Insurance-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -019	Economics of Labour-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -020	Behavioural Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -021	Mathematical Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -022	Economy of Haryana-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
Total						500			

Note: Students are required to select any two (02) elective papers. The students will select the same corresponding papers in Semester II. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 12

Optional Credits: 08

M.A. Economics 1st Semester
Paper- M-ECOC-001 (Compulsory)
MICRO ECONOMIC ANALYSIS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-001.1	Know the scope and breadth of Micro Economics along with understanding the core principles of demand and supply so that they are able to apply the understanding of these concepts to comprehend real world problems along with the ability to think critically and analyze economic problems.
M-ECOC-001.2	Understanding the core principles of production and costs so that they are able to apply the understanding of these concepts to comprehend real world problems along with the ability to think critically and analyze economic problems.
M-ECOC-001.3	Analyze given situations in a variety of markets on a microeconomic level. Understand the internal structure and assumptions of the different analytical frameworks of market conditions, their explanatory power and limitations.
M-ECOC-001.4	Exhibit the ability to learn and apply relevant optimization techniques for analysis of microeconomic Behaviour of consumer, producer and firm. Simultaneously Understanding the implications and ethical as well as value part of it.

Unit-I

Theory of Demand and Consumer Behaviour

Indifference curve approach and its applications (The leisure-income trade-off, Evaluation of alternative government policies, IC and theory of exchange); Price, Income and Substitution effects (Hicks and Slutsky); Revealed Preference Theory; The Consumer's Surplus (Marshall and Hicks) and its applications; Elasticity of demand (theoretical aspects and empirical estimation) and Elasticity of Supply; Revision of Demand theory by Hicks; Linear Expenditure System.

Reading List

- Baumol, W.J. (1982). *Economic Theory and Operations Analysis*. Prentice Hall of India, New Delhi.
- Green, H.A.G. (1971). *Consumer Theory*. Penguin, Harmondsworth.
- Henderson & Quandt (1980). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics (2nd Edition)*. Macmillan Press, London.
- Salvatore, D. (2009). *Microeconomics-Theory and Applications*. Oxford University Press.

Unit-II

Theory of Production and Costs

Production function (properties of Cobb Douglas and CES); Laws of production(variable proportions and returns to scale with the help of iso-quants); Technical Progress and production function; Equilibrium of the single product firm; Theories of costs and various cost curves– traditional and modern; Analysis of economies of scale.

Reading List

- Da Costa, G.C. (1980). *Production, Prices and Distribution*. Tata McGraw Hill, New Delhi.
- Healthfields and Wibe (1987). *An Introduction to Cost and Production Functions*. Macmillan, London.
- Hirshleifer, J. & Glazer, A. (1997). *Price Theory and Applications*. Prentice Hall of India, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics (2nd Edition)*. Macmillan Press, London.

- Varian, H. (2003). *Intermediate Microeconomics*. East-West Press.

Unit-III

Markets and Equilibrium

Perfect competition – Short and long term equilibrium of the firm and industry; Dynamic changes and industry equilibrium; Monopoly – short run and long run equilibrium; Price discrimination; Monopolistic competition - Chamberlin’s approach to equilibrium of the firm.

Reading List

- Archibald, G.C. (Ed.) (1971). *Theory of the Firm*. Penguin, Harmondsworth.
- Koutsoyiannis, A. (1979). *Modern Microeconomics (2nd Edition)*. Macmillan Press, London.
- Varian, H. (2003). *Intermediate Microeconomics*. East-West Press.

Unit-IV

Non-Collusive Models

Cournot; Bertrand; Stackelberg; Chamberlin; Kinked-demand curve.

Collusive Models

Cartels (Joint profit maximization and market sharing); Price leadership models (Low cost firm, Dominant firm and Barometric price leader).

Reading List

- Koutsoyiannis, A. (1979). *Modern Microeconomics (2nd Edition)*. Macmillan Press, London.
- Pindyck R. & Rubinfeld, D. (2018). *Microeconomics (9th Edition)*. Pearson.
- Varian, H. (2003). *Intermediate Microeconomics*. East-West Press.

Mapping Matrix of Course M-ECOC-001

Table 1: CO-PO Matrix for the Course M-ECOC-001

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-001.1	3	3	3	2	2	2	2	3	2	2	3	2
M-ECOC-001.2	3	3	3	2	2	2	2	3	2	2	3	2
M-ECOC-001.3	3	3	3	2	2	2	2	3	2	2	3	2
M-ECOC-001.4	3	3	3	3	3	3	2	3	3	2	3	3
AVERAGE	3	3	3	2.25	2.25	2.25	2	3	2.25	2	3	2.25

Table 2: CO-PSO Matrix for the Course M-ECOC-001

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-001.1	3	2	3	3
M-ECOC-001.2	3	2	3	3
M-ECOC-001.3	3	2	3	3
M-ECOC-001.4	3	3	2	3
AVERAGE	3	2.25	2.75	3

M.A. Economics 1st Semester
Paper- M-ECOC-002 (Compulsory)
MACRO ECONOMIC ANALYSIS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-002.1	The student shall understand the classical and Keynesian theory of output and employment.
M-ECOC-002.2	Explaining the behaviour of macroeconomic variables by identifying and understanding the extended model.
M-ECOC-002.3	Understanding the IS-LM framework and its various aspects.
M-ECOC-002.4	To understand the theories of consumption and investment and their relevance.

Unit-I

Theory of Output and Employment Determination

Classical Approach – Output and Employment in Classical Theory; The Quantity Theory of Money and the Price Level; Classical Model without saving and investment; Classical Model with saving and investment; Keynesian Approach - Two Sector Model, Three Sector Model and Four Sector Model.

Reading List

- Mankiw, Gregory N. (2003). *Macroeconomics*. Worth Publishers.
- Romer, David (2012). *Advanced Macroeconomics*. McGraw Hill Education.
- Shapiro, E. (2006). *Macroeconomic Analysis*. Galgotia Publication, New Delhi.

Unit-II

Theory of Output and Employment Determination

The Extended Model under Fixed Price Level – The Goods Market and The Money Market; IS-LM framework and Equilibrium in Goods Market and Money Market; Effect of Changes in Government spending, Taxation and Aggregate Demand on General Equilibrium.

Reading List

- Mankiw, Gregory N. (2014). *Principles of Macroeconomics*. Cengage Learning.
- Romer, David (2012). *Advanced Macroeconomics*. McGraw Hill Education.
- Shapiro, E. (2006). *Macroeconomic Analysis*, Galgotia Publication, New Delhi.

Unit-III

Theory of Output and Employment Determination

The Extended Model under Variable Price Level – Derivation of Aggregate Demand Curve and Determination of equilibrium price and output levels; Wage-price flexibility and the Full Employment equilibrium; Interest rate effect and Pigou Effect; Monetary – Fiscal policy analysis in IS-LM Model.

Reading List

- Shapiro, E. (2006). *Macroeconomic Analysis*. Galgotia Publication, New Delhi
- Langdana, F.K. (2013). *Macroeconomic Policy: Demystifying Monetary and Fiscal Policy*. Springer.

- Mankiw, Gregory N. (2014). *Principles of Macroeconomics*. Cengage Learning.
- Mishkin, F.S. (2016). *The Economics of Money Banking and Financial Markets*. Pearson.

Unit-IV

Theories of consumption

The Absolute Income Hypothesis; The Relative Income Hypothesis; The Permanent Income Theory of Consumption; The Life cycle theory of consumption.

Theories of Investment

The Marginal Efficiency of Capital Approach; The accelerator theory; Profits Theory; Jorgenson's Neoclassical Model; Adjustment costs and q theory.

Reading List

- Levacic, Rosalind & Rebmann, Alexander (2015). *Macroeconomics*. Macmillan, London.
- Mankiw, Gregory N. (2014). *Principles of Macroeconomics*. Cengage Learning.
- Romer, David (2012). *Advanced Macroeconomics*. McGraw Hill Education.
- Shapiro, E. (2006). *Macroeconomic Analysis*, Galgotia Publication, New Delhi.

Mapping Matrix of Course M-ECOC-002
Table 1: CO-PO Matrix for the Course M-ECOC-002

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-002.1	2	2	2	3	3	2	-	2	-	-	2	2
M-ECOC-002.2	3	2	3	2	3	2	-	2	-	-	2	2
M-ECOC-002.3	3	3	3	3	2	2	-	3	-	-	2	2
M-ECOC-002.4	3	3	3	3	2	2	-	3	-	-	2	2
AVERAGE	2.75	2.50	2.75	2.75	2.50	2.00	-	2.50	-	-	2.00	2.00

Table 2: CO-PSO Matrix for the Course M-ECOC-002

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-002.1	2	2	3	2
M-ECOC-002.2	3	2	3	3
M-ECOC-002.3	3	2	3	3
M-ECOC-002.4	3	2	3	3
AVERAGE	2.75	2	3.00	2.75

M.A. Economics 1st Semester
Paper- M-ECOC-003 (Compulsory)
MATHEMATICS FOR ECONOMISTS

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-003.1	Understand the various rules of matrix algebra and thus, become able to solve the models containing system of simultaneous equations, input-output model etc.
M-ECOC-003.2	Appreciate the techniques of differential calculus and become able to compute elasticity, rate of change (marginals), optimizing behavior of various economic agents including consumers, investors, firms, and governments.
M-ECOC-003.3	Compute the consumer's surplus and producer's surplus by utilizing the tool of integral calculus and develop the ability to deal with models of trade cycle, economic growth and lagged market equilibrium.
M-ECOC-003.4	Understand the techniques of linear programming as well as game theory and attain ability to analyze the optimum behavior of consumers, investors, firms, and governments.

Unit-I

Matrix Algebra and Its Applications

Concept of Matrix and Determinant – their types, simple operations on matrices; Matrix inversion and rank of matrix; Solution of simultaneous equations through Cramer's rule and Matrix inverse method; Introduction to input-output analysis.

Reading List

- Allen, R.G.D. (1974). *Mathematical Analysis for Economists*. Macmillan Press, London.
- Black, J. & Bradley, J.F. (1973). *Essential Mathematics for Economists*. John Wiley and Sons.
- Joshi, R. C. (2008). *Basic Mathematics for Economists*. New Academic Publishing.
- Leontief, W. (1936). Quantitative input-output relations in the economic systems of the United States. *Review of Economics and Statistics*, 18, 105-125.
- Miller, R.E. & Blair, P.D. (1985). *Input-Output Analysis: Foundations and Extensions*. Prentice-Hall, Englewood Cliffs, New Jersey.

Unit-II

Differential Calculus and Its Applications

Rules of differentiation; Elasticity and their types; Rules of Partial differentiation and interpretation of partial derivatives; Problems of maxima and minima in single and multivariable functions; Unconstrained and constrained optimization in simple economic problems.

Reading List

- Aggarwal, D. R. (2018). *Quantitative Methods*. Vrinda Publications.
- Chiang, A.C. (2005). *Fundamental Methods of Mathematical Economics*. McGraw Hill, New York.
- Mouhammed, Adil H. (2004). *Quantitative Methods for Business and Economics*. PHI, New Delhi.
- Yamane T. (1973). *Mathematics for Economists*. PHI.

Unit-III

Introductory Integral Calculus and Difference Equations

Concept and simple rules of integration; Application to consumer's and producer's surplus.

Difference equations – Solution of first order and second order difference equations; Applications in trade cycle models; Growth models and lagged market equilibrium models.

Reading List

- Mehta, B. C. & Madnani, G. M. K. (2018). *Mathematics for Economists*. Sultan Chand & Sons, New Delhi.
- Mouhammed, Adil H. (2004). *Quantitative Methods for Business and Economics*. PHI, New Delhi.

Unit-IV

Linear Programming and Game Theory

Linear programming – Basic concept, Nature of feasible, basic and optimal solution; Solution of linear programming problem through graphical and simplex method.

Concept of a game; Two-person Zero-sum game; value of a game; strategies- simple and mixed; Dominance rule; Solution of a game by linear programming.

Reading List

- Aggarwal, D. R. (2018). *Quantitative Methods*. Vrinda Publications.
- Mehta, B. C. & Madnani, G. M. K. (2018). *Mathematics for Economists*. Sultan Chand & Sons, New Delhi.
- Taha, Hamdy A. (2001). *Operations Research: An Introduction*. Pearson Education.
- Vohra, N.D. (2008). *Quantitative Techniques in Management*. Tata McGraw Hill.

Mapping Matrix of Course M-ECOC-003

Table 1: CO-PO Matrix for the Course M-ECOC-003

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-003.1	3	3	3	2	3	3	2	2	-	-	2	3
M-ECOC-003.2	3	3	3	2	3	3	2	2	-	-	2	3
M-ECOC-003.3	3	3	3	3	3	3	2	2	-	-	2	3
M-ECOC-003.4	3	3	3	2	3	3	2	2	-	-	2	3
AVERAGE	3	3	3	2.25	3	3	2	2	-	-	2	3

Table 2: CO-PSO Matrix for the Course M-ECOC-003

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-003.1	3	3	2	3
M-ECOC-003.2	3	3	2	3
M-ECOC-003.3	3	3	2	3
M-ECOC-003.4	3	3	3	3
AVERAGE	3	3	2.25	3

M.A. Economics 1st Semester
Paper-M-ECO-014 (Elective)
PUBLIC ECONOMICS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-014.1	Understand, explain and apply the concept of efficiency along with various solutions of market failure.
M-ECO-014.2	Comprehend and present the efficiency and welfare distribution aspects in context of public goods besides understanding the preference revelation mechanisms.
M-ECO-014.3	Understand the economic implications of various taxes along with their critical analysis thereby attain in-depth knowledge of theories and postulates based on taxation.
M-ECO-014.4	Development of critical thinking regarding normative aspects of taxation and thus become able to design an efficient and equitable taxation system.

Unit-I

The Public Economy

Exchange Economy, Production Economy and Efficiency; Asymmetric Information and market Failure; The Problem of Externalities – Negotiation, Permit trading, Common property Resources, The Coase Theorem; Rent Seeking Costs and Political process.

Reading List

- Akerlof, G. (1970). The Market for `Lemons': Quality Uncertainty and the Market Mechanism. *Quarterly Journal of Economics*, 84(3), 488-500.
- Ayres, I. & Levitt, Steven D. (1998). Measuring Positive Externalities from Unobservable Victim Precaution: An Empirical Analysis of Lojack. *Quarterly Journal of Economics*, 113(1), 43-77.
- Coase, R. (1960). The Problem of Social Cost. *Journal of Law and Economics*, 3, 1-44.
- Hillman, A. L. (2009). *Public Finance and Public Policy*. Cambridge University Press.
- Leach, John (2004). *A Course in Public Economics*. Cambridge University Press.
- Metcalf, G. (2009). Market-Based Policy Options to Control U.S. Greenhouse Gas Emissions. *Journal of Economic Perspectives*, 23(2), 5-27.

Unit-II

Public Goods

Efficient Provision of Public Goods; Private provision of Pure Public Goods; Bowen Model, Lindahl Model; Samuelson Model; Nash equilibrium Approach; Clarke Mechanism, Groves- Ledyard Mechanism; Lindahl - Wicksell Mechanism; Theory of Club Goods.

Reading List

- Andreoni, J. (1993). An Experimental Test of the Public Goods Crowding-Out Hypothesis. *American Economic Review*, 83(5), 1317-1327.
- Bergstrom, T., Blume, L. & Varian, H. (1986). On the Private Provision of Public Goods. *Journal of Public Economics*, 29, 25-49.

- Clarke, E.H. (1971). Multipart Pricing of Public Goods. *Public Choice*, 11, Rand McNally
- Foley, D.K. (1970). Lindahl's solution and the core of an economy with public goods. *Econometrica*, 38(1), 66-72.
- Samuelson, P. (1954). The Pure Theory of Public Expenditure. *Review of Economics and Statistics*, 36(4), 387-389.

Unit-III

Public Revenue-I

Incentive Effects of Taxation on Labour Supply, Savings, Risk Taking and Investment; Other Distorting Effects of the Tax System; Tax Incidence – Partial and General equilibrium Analysis; Dynamic Tax Incidence.

Reading List

- Blundell, R. and MaCurdy, T. (1999). *Labor supply: a review of alternative approaches*, In Ashenfelter, O., and Card, D. (Eds.), *Handbook of Labor Economics*, vol. 3A, chap. 27, Elsevier.
- Boadway, R. (1984). *Public Sector Economics*. Cambridge Winthrop Publishers.
- Harberger, A. (1962). The Incidence of the Corporation Income Tax. *Journal of Political Economy*, 70, 215-240.
- Ithori, Toshihiro (2016). *Principles of Public Finance*. Springer.
- Jha, Raghendra (1998). *Modern Public Economics*. Routledge.

Unit-IV

Public Revenue-II

Normative Analysis of Taxation – Income v/s Excise Tax; Optimal Commodity Tax- The Ramsey Rule, The Corlett and Hague Rule; Optimal Income Tax; Excess Burden of Tax and its Measurement; Tax Evasion and the Black Economy; Corporation tax and its Effects on Corporate Decisions.

Reading List

- Alm, James (2012). Measuring, explaining, and controlling tax evasion: lessons from theory, experiments, and field studies. *International Tax and Public Finance*, 19(1), 54–77.
- Auerbach, A. (2002). *Taxation and Corporate Financial Policy*, In Auerbach, A. and Feldstein, M. (eds), *Handbook of Public Economics*, vol. 3, chap. 19, Elsevier.
- Boadway, R. (1984). *Public Sector Economics*. Cambridge Winthrop Publishers.
- Cullis, John & Jones, Philip (2009). *Public Finance and Public Choice: Analytical Perspectives*. Oxford University Press.
- Diamond, P. (1975). A Many-Person Ramsey Tax Rule. *Journal of Public Economics*, 4(4), 335-342.
- Mirrlees J. (1971). An Exploration in the Theory of Optimum Income Taxation. *Review of Economic Studies*, 38(2), 175-208.

Mapping Matrix of Course M-ECOE-014

Table 1: CO-PO Matrix for the Course M-ECOE-014

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-014.1	3	3	3	3	2	2	3	-	3	-	3	-
M-ECOE-014.2	3	3	3	2	2	2	3	-	3	-	3	-
M-ECOE-014.3	3	3	3	2	2	2	3	-	3	-	2	-
M-ECOE-014.4	3	3	3	3	2	2	3	-	3	-	2	-
AVERAGE	3	3	3	2.5	2	2	3	-	3	-	2.5	-

Table 2: CO-PSO Matrix for the Course M-ECOE-014

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-014.1	3	3	3	3
M-ECOE-014.2	3	3	3	3
M-ECOE-014.3	2	3	3	2
M-ECOE-014.4	2	2	3	2

AVERAGE	2.5	2.75	3	2.5
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M.A. Economics 1 st Semester Paper-M-ECO-015 (Elective) FINANCIAL ECONOMICS-I	Total Credit: 4 Time: 3 Hrs. Marks: 100 External : 80 Internal : 20
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Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-015.1	Understand, apply and solve the time value of money problems and its applications in investment evaluation criteria.
M-ECO-015.2	Understand and compute various costs of capital and design an optimal capital structure.
M-ECO-015.3	Understand theoretically how dividend decisions are taken in corporate sector and design a dividend policy for a firm.
M-ECO-015.4	Understand the management of working capital and its components, and solve problems in relation thereto.

Unit-I

Capital Budgeting

Time Value of Money; Goals of Finance; Economics of capital Budgeting - Investment Criteria, Estimation of project Cash Flows, Risk Analysis in Capital Budgeting, Computation of Cost of Capital.

Reading List

- Chandra, Prasanna (2011). *Financial Management: Theory and Practice*. Tata McGraw Hill.
- Harold Bierman, Jr. & Smidt, Seymour (2007). *The Capital Budgeting Decision: Economic Analysis of Investment Projects*. Routledge.
- Van Horne, J.C. (2002). *Financial Management and Policy*. Pearson Education.

Unit-II

Capital Structure and Firm Value

Economics of Capital Structure and Firm Value - Net Income Approach, Net Operating income Approach, Modigliani and Miller Approach; Analysis of Optimal Capital structure – EBIT & EPS Analysis, ROI & ROE Analysis, Operating and Financial Leverage.

Reading List

- Chandra, Prasanna (2011). *Financial Management: Theory and Practice*. Tata McGraw Hill.
- Kent Baker, H. & Martin, Gerald S. (2011). *Capital Structure and Corporate Financing Decisions*. Wiley Publishers.
- Van Horne, J.C. (2002). *Financial Management and Policy*. Pearson Education.

Unit-III

Dividends and Working Capital

Economics of Dividends- Walter Model, Gordon Model, Modigliani and Miller Model; Economics of Working Capital- Estimation of Working Capital, Financing of working Capital. Cost-Volume-Profit Analysis.

Reading List

- Brittain, J.A. (1978). *Corporate Dividend Policy*. Brookings Institution, USA.
- Chandra, Prasanna (2011). *Financial Management: Theory and Practice*. Tata McGraw Hill.
- Mehta, D. R. (1974). *Working Capital Management*. Prentice- Hall.
- Van Horne, J.C. (2002). *Financial Management and Policy*. Pearson Education.

Unit-IV**Cash, Receivables and Inventory**

Economics of Cash – Cash Budgeting and its Simulation, Optimal Cash balance, Baumol Model, Miller and Orr Model; Economics of Receivables; Economics of Inventory – EOQ Model, Pricing of Raw materials, Monitoring and Control of Inventories.

Reading List

- Chandra, Prasanna (2011). *Financial Management: Theory and Practice*. Tata McGraw Hill.
- Mehta, D. R. (1974). *Working Capital Management*. Prentice- Hall.
- Van Horne, J.C. (2002). *Financial Management and Policy*. Pearson Education.

Mapping Matrix of Course M-ECOE-015**Table 1: CO-PO Matrix for the Course M-ECOE-015**

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-015.1	3	3	3	3	3	3	3	-	2	-	3	3
M-ECOE-015.2	3	3	3	3	3	3	3	-	2	-	3	3
M-ECOE-015.3	3	3	3	3	3	3	3	-	2	-	3	3
M-ECOE-015.4	3	3	3	3	3	3	3	-	2	-	3	3
AVERAGE	3	3	3	3	3	3	3	-	2	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-015

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-015.1	2	3	3	2
M-ECOE-015.2	2	3	3	2
M-ECOE-015.3	2	3	3	2
M-ECOE-015.4	2	3	3	2
AVERAGE	2	3	3	2

M.A. Economics 1st Semester
Paper-M-ECO-016 (Elective)
DEMOGRAPHY –I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-016.1	Understand the basics of demography.
M-ECO-016.2	Use demographic concepts and population theories to explain past and present population characteristics
M-ECO-016.3	Analyze the world population growth and trends and distinguish between the population patterns of developed and less developed countries
M-ECO-016.4	Describe and compare the demographic process of fertility, mortality and Nuptiality.

Unit-I

Introduction to Demography

Evolution of Demography; Meaning, subject matter and importance of Demography; Concepts of population change and Composition of population; Sources of Demographic Data: Census, Sample Surveys, Registration.

Reading List

- Bouge, D.J. (1971). *Principles of Demography*, John Wiley, New York.
- Harper, S. (2018). *Demography: A Very Short Introduction*, Cambridge University Press.
- Weinstein, J. & Pillai, V.K. (2015). *Demography: The Science of Population*. Rowman & Littlefield Publications.

Unit-II

Population and Demographic Transition

Theories of Population: Malthusian Theory, Optimum Theory; Theories of Demographic Transition: Blacker and Boserup; Biological theories of Population; Socio-economic theories of Population – Marx & Leibenstein, Approaches of Meadows, Becker and Easterlin.

Reading List

- Majumdar, P.K. (2010). *Fundamentals of Demography*. Rawat Publication.
- Mishra, J.P. (2018). *Demography*. Sahitya Bhawan Publication.
- Novell, C. (1990), *Methods and Models in Demography*. Bellhaven, Washington D.C.
- Pathak, K.B. & Ram, F. (2016). *Techniques of Demographic Analysis*. Himalaya Publishing House.

Unit-III

Trends of World Population

Growth of World Population: History of Growth, Population trends since 20th century, Causes of Population Explosion; International Aspects of Population Growth and distribution; Age and Sex Structure in more developed and less developed countries; Population Pyramids.

Reading List

- Preston, Samuel H. (2000). *Demography: Measuring and Modeling Population Processes*. Guilford Press.
- Preston, Samuel H., Heuveline, P. & Guillot, Michel (2001). *Demography: Measuring and Modeling Population Processes*. Oxford: Blackwell Publishers.
- Rowland, D. (2003). *Demographic Methods and Concepts*. OUP.
- Sharma, Rajendra K. (2004). *Demography and Population Problems*. Atlantic Publications.

Unit-IV

Fertility, Mortality and Nuptiality

Fertility - Meaning & Concepts; Factors affecting Fertility; Levels and trends of fertility in developed and developing Countries; Mass Education and Fertility- Cooperation, inequality and the family (A.K. Sen).

Mortality - Meaning & Concepts; Factors affecting Mortality; Life Tables - Construction & Uses; Concepts of stationary, stable and quasi stationary population.

Nuptiality - Meaning and Concepts; Determinants of Nuptiality; Trends in average age of marriage; Marital Dissolution

Reading List

- Siegel, Jacob S. & Swanson, David A. (2004). *The Methods and the materials of Demography*. Second Edition, Elsevier Science.USA.
- Srinivasan, K. (1998). *Basic Demographic Techniques and Applications*. Sage publications.
- Weeks, J. (2005). *Population: An introduction to concepts and issues*. Wordsworth Learning. Singapore 9th edition.
- Yusuf Farhat, Jo M. Martius and David A. Seans (2016). *Methods of Demographic Analysis*. Springer Netherlands.

Mapping Matrix of Course M-ECOIE-016

Table 1: CO-PO Matrix for the Course M-ECOIE-016

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOIE-016.1	3	2	3	3	3	2	3	2	-	-	3	2
M-ECOIE-016.2	3	2	3	3	3	2	3	2	-	-	3	2
M-ECOIE-016.3	3	2	3	3	3	3	3	2	-	-	3	2
M-ECOIE-016.4	3	2	3	3	3	3	3	2	-	-	3	2
AVERAGE	3	2	3	3	3	2.5	3	2	-	-	3	2

Table 2: CO-PSO Matrix for the Course M-ECOIE-016

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOIE-016.1	3	3	2	2
M-ECOIE-016.2	3	3	2	2
M-ECOIE-016.3	3	3	2	2
M-ECOIE-016.4	3	3	2	2
AVERAGE	3	3	2	2

M.A. Economics 1st Semester
Paper-M-ECOE-017 (Elective)
ECONOMICS OF INFRASTRUCTURE –I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-017.1	Students will be exposed to the concepts, models and problems related to Infrastructure. They will be able to understand and evaluate the environmental, economic, social and sustainability constraints of infrastructure projects.
M-ECOE-017.2	Understand the alternative transportations models, in light of capacity, effectiveness, frequency, environment and financing.
M-ECOE-017.3	Students will be able to analyze and gain knowledge of Central concepts in Benefit/Cost Analysis (BCA) and do economic analysis to understand application in the transport sector.
M-ECOE-017.4	Understand and Model the Education Production Function; education externalities; education planning and quality and other related issues.

Unit-I

Scope of Infrastructure

Infrastructure – Physical & Social Infrastructure; Infrastructure as a public good; The peak load, off - load problem; Role of infrastructure in economic development; Issues & policies in financing of infrastructure; Theory of natural monopoly.

Reading List

- Indian Council of Social Science Research (ICSSR). *Economics of Infrastructure, Vol – IV*. New Delhi.
- National Council of Applied Economic Research (1996). *India infrastructure report: policy implications for growth and welfare*. New Delhi, NCAER.
- Parikh, K.S. (Ed.). *India Development Reports*. Oxford University Press, New Delhi.

Unit-II

Microeconomic Aspects of Transportation–I

Economics of transportation network growth; Congestion and demand of transport network; Pricing of transport services; Travel time value theories; Elasticity of Substitution, Economies of scale and behavior of transport costs; Transport and economic development.

Reading List

- Button, K. (2010). *Transport Economics*. Edward Elgar.
- Coto-Millan, P. & Inglada, V. (Eds.). (2007). *Essays on Transport Economics*. Physica Verlag (Springer).
- Cowie, J. (2009). *The Economics of Transport: A Theoretical and Applied Perspective*. Routledge.
- Palma, A., Lindsey, R., Quinet, E. & Vickerman, R. (Eds.).(2011). *Handbook of Transport Economics*. Edward Elgar.

Unit-III

Microeconomic Aspects of Transportation–II

Transport externalities; Transport demand; Price elasticity of transport demand; Demand forecasting for urban transport; Trip scheduling in urban transport; Cost-benefit analysis of transport projects; Transport policy and development in a changing environment; Transport regulation; Perfect competition in transport markets; Imperfect competition in transport markets; Transport subsidies.

Reading List

- Button, K. (2010). *Transport Economics*. Edward Elgar.
- Coto-Millan, P. & Inglada, V. (Eds.). (2007). *Essays on Transport Economics*. Physica Verlag (Springer).
- Cowie, J. (2009). *The Economics of Transport: A Theoretical and Applied Perspective*. Routledge.
- Palma, A., Lindsey, R., Quinet, E. & Vickerman, R. (Eds.).(2011). *Handbook of Transport Economics*. Edward Elgar.

Unit-IV

Economics of Education

Educational infrastructure and Economic Growth; Educational production functions; Education technology; Educational quality; Costs and efficiency of higher education; Education externalities; Approaches to Educational Planning- Social Demand, Rate of Return and Manpower Balance Approaches; The case for Universal, Free, Primary Education.

Reading List

- Blaug, M. (Ed.). (1968). *Economics of Education: selected readings*. Penguin Books, England.
- Dustmann, C., Fitzenberger, B. & Machin, S. (2008). *The economics of education and training*. Springer.
- McMohan, W.W. (2000). *Education and Development: Measuring the Social Benefit*. Oxford University Press.
- Psacharopoulos, G. (2014). *Economics of education: research and studies*. Pergamon Press, Elsevier Science Ltd.

Mapping Matrix of Course M-ECOIE-017

Table 1: CO-PO Matrix for the Course M-ECOIE-017

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOIE-017.1	3	3	3	2	2	2	-	2	-	2	3	3
M-ECOIE-017.2	3	3	3	2	2	2	-	2	-	2	3	3
M-ECOIE-017.3	3	3	3	2	2	3	-	2	-	2	3	3
M-ECOIE-017.4	3	3	3	2	2	3	-	2	-	2	3	3
AVERAGE	3	3	3	2	2	2.5	-	2	-	2	3	3

Table 2: CO-PSO Matrix for the Course M-ECOIE-017

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOIE-017.1	3	2	3	3
M-ECOIE-017.2	3	2	3	3
M-ECOIE-017.3	3	2	3	3
M-ECOIE-017.4	3	3	2	2
AVERAGE	3	2.25	2.75	2.75

M.A. Economics 1st Semester
Paper-M-ECO-018 (Elective)
ECONOMICS OF INSURANCE-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-018.1	Understand the concept of insurance and how it is used to cover risk.
M-ECO-018.2	Explain the relationship between insurers and insured and the importance of insurance contracts.
M-ECO-018.3	Analyze Financial Statements of an Insurance Company.
M-ECO-018.4	Understand meaning and consequences of asymmetric Information and its application in insurance sector.

Unit-I

Rationale of Insurance

Risk: Measurement, Perception, and Management; Macroeconomic Importance of Insurance; Nature, Functions, Elements, Principles and Fields of Insurance; Major Determinants of the Demand for Insurance; Risk management applications.

Reading List

- Beard, R.E., Pentikainen, T., & Pesonen, E. (1984). *Risk Theory: The Stochastic Basis of Insurance*. London: Chapman and Hall
- Zweifel, Peter & Eisen, Roland. (2012). *Insurance Economics*. Springer.

Unit-II

Demand for Insurance

Insurance Demand: The Expected Utility Maximization Hypothesis; Theory of Insurance Demand- The Basic Model, Insurance Demand in the Presence of Irreplaceable Assets; Demand for Insurance Without Fair Premiums; Demand for Insurance with Multiple Risks; Critique of the Expected Utility Hypothesis and Alternatives; Risk Management and Diversification; Risk Management, Forward Contracts, Futures, and Options.

Reading List

- Beard, R.E., Pentikainen, T., & Pesonen, E. (1984). *Risk Theory: The Stochastic Basis of Insurance*. London: Chapman and Hall
- Zweifel, Peter & Eisen, Roland. (2012). *Insurance Economics*. Springer.

Unit-III

Supply Side of Insurance

Financial Statements of an Insurance Company; Functions of Insurers; Underwriting Policy; Controlling Moral Hazard Effects; Reinsurance; Insurance and law of Contract; The Supply of Insurance- Traditional Premium Calculation, Financial Models of Insurance Pricing; Economies of Scope; Economies of Scale.

Reading List

- Beard, R.E., Pentikainen, T., & Pesonen, E. (1984). *Risk Theory: The Stochastic Basis of Insurance*. London:

Chapman and Hall

- Zweifel, Peter & Eisen, Roland. (2012). *Insurance Economics*. Springer.

Unit-IV

Insurance Regulation

Asymmetric Information and Its Consequences; Moral Hazard; Adverse Selection; Objectives, Theories and Types of Insurance Regulation; Effects of Insurance Regulation; Recent Trends in Insurance Regulation; Insurance regulation & Development Authority.

Reading List

- Abraham, K.S. (1995). *Insurance Law and Regulation: Cases and Materials*. Westbury NY: The Foundation Press.
- Dionne, G. & Harrington, S.E. (Ed.). (1997). *Foundations of Insurance Economics*. Kluwer academic Publishers, Boston.
- Zweifel, Peter & Eisen, Roland. (2012). *Insurance Economics*. Springer.

Mapping Matrix of Course M-ECOE-018

Table 1: CO-PO Matrix for the Course M-ECOE-018

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-018.1	3	3	3	2	3	3	3	2	-	-	3	3
M-ECOE-018.2	3	3	3	2	3	3	3	2	-	-	3	3
M-ECOE-018.3	3	3	3	2	3	3	3	2	-	-	3	3
M-ECOE-018.4	3	3	3	2	3	3	3	2	-	-	3	3
AVERAGE	3	3	3	2	3	3	3	2	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-018

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-018.1	3	3	3	2
M-ECOE-018.2	3	3	3	2
M-ECOE-018.3	3	3	3	2
M-ECOE-018.4	3	3	3	2
AVERAGE	3	3	3	2

M.A. Economics 1st Semester
Paper-M-ECOE-019 (Elective)
ECONOMICS OF LABOUR-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-019.1	To be able to analyze labour market issues through the application of economic data and theories.
M-ECOE-019.2	Critically analyze the factors affecting supply in labour market with quantitative research.
M-ECOE-019.3	To be able to synthesize information on different actors and outcomes across the various labour market topics including employment, unemployment, technological change.
M-ECOE-019.4	To be able to understand the process of wage determination and development of generic skills to think critically, interpret and explore to be able to apply theory to practice and synthesize as well as evaluate data and other information.

Unit-I

Labour Markets and Demand for Labour

Nature and characteristics of labour markets in developing countries like India; Paradigms of labour market analysis — Classical, neo-classical and dualistic economy; Demand for labour in relation to size and pattern of investment; Choice of technologies and labour policies.

Reading List

- Lester, R.A. (1964). *Economics of Labour*, (2nd Edition), Macmillan, New York.
- Rees, A. (1973). *Economics of Work and Pay*, Harper and Row, New York.
- Sen, A.K. (1975). *Employment, Technology, and Development*, Oxford University Press, New Delhi.
- Solow, R.M. (1990). *Labour Market as an Institution*, Blackwell, London.

Unit-II

Supply of labour

Supply of labour in relation to growth of labour force; Labour market policies; Mobility and productivity of labour; Rationalization; Methods of recruitment and placement; Employment service organization in India.

Reading List

- McConnell, C.R. & Brue, S.L. (1986). *Contemporary Labour Economics*, McGraw-Hill, New York.
- Papola, T.S. & Rodgers, G. (Eds.). (1992). *Labour Institutions and Economic Development in India*, International Institute for Labour Studies, Geneva.
- Rosenberg M.R. (1988). *Labour Markets in Low Income Countries*, In Chenery, H.B. and T.N. Srinivasan, (Eds.), *The Handbook of Development Economics*, North-Holland, New York.

Unit-III

Employment

Employment and development relationship — Poverty and unemployment in developing countries; Unemployment — Concept, Types, and Measurement, particularly in India; Impact of rationalization, technological change and modernization on employment in organized private industry, Public sector and employment in agricultural sector; Analysis of educated unemployment.

Reading List

- Das, N. (1960). *Unemployment, Full Employment and India*. Asia Publishing House, Bombay.
- Datt, G. (1996). *Bargaining Power, Wages and Employment: An Analysis of Agricultural Labour Markets in India*. Sage Publications, New Delhi.
- Kannapon, S. (1983). *Employment Problems and Urban Labour Markets in Developing Countries*. University of Michigan, Ann Arbor.
- Sharma, A.N. & Kundu, A. (Eds.). (2001). *Informal Sector in India: Emerging Perspectives*. Institute for Human Development, New Delhi.

Unit-IV

Wage Determination

Classical, neo-classical and bargaining theories of wage determination; Concepts of minimum wage, living wage and fair wage in theory and practice; Discrimination in labour markets; Wage determination in various sectors — rural, urban, organized, unorganized and in informal sectors.

Reading List

- Binswanger H.P. & Rosenzweig, M.R. (Eds.) (1984), *Contractual Arrangements, Employment, and Wages in Rural Labor Markets in Asia*. Yale University Press, New Haven.
- Desphande L.K. and J.C. Sandesara, (Ed.). (1970). *Wage Policy and Wages Determination in India*. Bombay University Press, Bombay.
- Hicks J.R. (1932). *The Theory of Wages*. Clarendon Press, Oxford.
- Jhabvala, R. & Subrahmanya, R.K. (Eds.) (2000). *The Unorganised Sector: Work Security and Social Protection*. Sage Publications, New Delhi.
- Madan, B.K. (1977). *The Real Wages of Industrial Workers in India*. Management Development Institute, New Delhi.

Mapping Matrix of Course M-ECOE-019
Table 1: CO-PO Matrix for the Course M-ECOE-019

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-019.1	3	3	3	3	2	2	2	-	3	-	2	3
M-ECOE-019.2	3	3	3	2	2	2	2	-	3	-	2	3
M-ECOE-019.3	3	3	3	2	2	3	2	-	3	-	2	2
M-ECOE-019.4	3	3	3	2	2	2	2	-	3	-	2	2
AVERAGE	3	3	3	2.25	2.00	2.25	2.00	-	3	-	2.00	2.50

Table 2: CO-PSO Matrix for the Course M-ECOE-019

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-019.1	3	2	3	2
M-ECOE-019.2	3	2	3	3
M-ECOE-019.3	3	3	3	3
M-ECOE-019.4	2	3	2	2
AVERAGE	2.75	2.50	2.75	2.50

M.A. Economics 1st Semester
Paper-M-ECOE-020 (Elective)
BEHAVIOURAL ECONOMICS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-020.1	Understand, communicate and solve applications of the behavioural decision theory and the theory of rational choice under certainty and uncertainty.
M-ECOE-020.2	Critically evaluate the preference models and understand the human behavior under ambiguous situations.
M-ECOE-020.3	Demonstrate an understanding of time factor in behavioural models and explain/solve applications of biased preferences.
M-ECOE-020.4	Understand and formulate strategies for human choice in behavioral economics using game theory.

Unit-I

Behavioural Decision Theory

Human Choice under uncertainty; Behavioural models of Decision Making- Rank Dependent Utility Theory, Prospect Theory; Applications of Behavioural Decision theory.

Reading List

- Angner, Erik (2016). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhami, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Unit-II

Models of Ambiguity and Preferences

Human Behaviour under Ambiguity; Human Sociality; Preferences models; Incentives and Preferences.

Reading List

- Angner, Erik (2016). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhami, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Unit-III

Behavioural Time Discounting

Temporal Human Choice; Behavioural Models of Time Discounting; Applications of Present Biased Preferences.

Reading List

- Angner, Erik (2016). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhami, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Unit-IV

Strategic Human Choice

Mixed Strategy Nash Equilibria; Coordination Games; Bargaining Games; Asymmetric Information and Signaling; Strategic complements and Strategic Substitutes.

Reading List

- Angner, Erik (2016). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhami, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Mapping Matrix of Course M-ECOE-020
Table 1: CO-PO Matrix for the Course M-ECOE-020

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-020.1	3	3	2	3	2	2	3	-	3	3	3	3
M-ECOE-020.2	3	3	3	3	2	2	3	-	3	3	2	2
M-ECOE-020.3	3	3	3	3	3	2	3	-	3	2	3	3
M-ECOE-020.4	3	3	3	3	3	3	3	-	2	2	3	3
AVERAGE	3	3	2.75	3	2.5	2.25	3	-	2.75	2.5	2.75	2.75

Table 2: CO-PSO Matrix for the Course M-ECOE-020

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-020.1	3	2	3	3
M-ECOE-020.2	3	2	3	3
M-ECOE-020.3	3	2	3	3
M-ECOE-020.4	3	2	3	3
AVERAGE	3	2	3	3

M.A. Economics 1st Semester
Paper-M-ECOE-021 (Elective)
MATHEMATICAL ECONOMICS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-021.1	Understand, explain, solve and design different forms of utility functions and demand functions; and some recent concepts related to theory of demand using mathematical derivations and optimization.
M-ECOE-021.2	Understand, explain, solve and design production functions, cost function, efficiency and producer behaviour using mathematical tools.
M-ECOE-021.3	Understand, estimate, interpret and forecasts the time path of any variable and comprehend the behavior of monopolist, monopsonist and the firm working under monopolistic competition by utilizing mathematical derivations.
M-ECOE-021.4	Compute and interpret equilibrium price, output and profits of firms under Oligopoly using differential calculus.

Unit-I

Topics in Consumer Behavior

Types of utility functions; Ordinal utility maximization; Demand functions- ordinary and compensated; Slutsky equation- income, substitution, and price effects; Consumer surplus; Elasticity of demand; Linear expenditure systems; Indirect utility function.

Reading List

- Allen, R.G.D. (1972). *Mathematical Economics*. Macmillan, London.
- Allen R.G.D. (2002). *Mathematical Analysis for Economists*. Macmillan Press and ELBS, London.
- Chiang, A.C.(2006). *Fundamental Methods of Mathematical Economics*. McGraw Hill, New York.
- Chung, J.W. (1994). *Utility and Production: Theory and Applications*. Basil Blackwell, London.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics*. Macmillan Press, London.

Unit-II

Production Function Analysis

Production functions and their properties (CD, CES, Translog); Elasticity of factor substitution and curvature of iso-quants; Producer's equilibrium; Duality in cost and production functions; Growth Accounting Equation; Methods for measuring productivity and efficiency.

Reading List

- Chiang, A.C. (1999). *Elements of Dynamic Optimization*. Waveland Press Inc., Long Grove, Illinois.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics*. Macmillan Press, London.

Unit-III

Market Equilibrium

Product and factor market equilibrium; Existence, uniqueness and stability of equilibrium; Static stability; Dynamic stability-lagged adjustment and continuous adjustment; Dynamic equilibrium with lagged adjustment; Monopoly, monopsony and monopolistic competition.

Reading List

- Chiang, A.C. (2006). *Fundamental Methods of Mathematical Economics*. McGraw Hill, New York.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics*. Macmillan Press, London.

Unit-IV

Classical Oligopoly and Managerial Theories of Firm

Duopoly and oligopoly: Cournot's Model; Stackelberg's model; Kinked demand curve; Joint profit maximization; Price leadership model; Bilateral monopoly; Baumol's, Willamson's, and Marris's models of firm.

Reading List

- Alhabeeb, M.J. & Joe Moffitt, L. (2014). *Managerial Economics: A Mathematical Approach*. John Wiley & Sons.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics*. Macmillan Press, London.
- Lancaster, K. (2012). *Mathematical Economics*. Dover Publications Inc., New York.

Mapping Matrix of Course M-ECOIE-021

Table 1: CO-PO Matrix for the Course M-ECOIE-021

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOIE-021.1	3	3	3	2	3	2	3	-	-	-	3	3
M-ECOIE-021.2	3	3	3	2	3	2	3	-	-	-	3	3
M-ECOIE-021.3	3	3	3	2	3	2	3	-	-	-	3	3
M-ECOIE-021.4	3	3	3	2	3	2	3	-	-	-	3	3
AVERAGE	3	3	3	2	3	2	3	-	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOIE-021

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOIE-021.1	3	3	2	3
M-ECOIE-021.2	3	3	2	3
M-ECOIE-021.3	3	3	2	3
M-ECOIE-021.4	3	3	2	3
AVERAGE	3	3	2	3

M.A. Economics 1st Semester
Paper-M-ECOE-022 (Elective)
ECONOMY OF HARYANA-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-022.1	Understand, explain and analyze Growth and development of Haryana economy since 1966.
M-ECOE-022.2	Describe and critically analyze growth and reforms in Haryana agriculture sector and evaluate various financing and insurance schemes.
M-ECOE-022.3	Analyze Industrial growth and performance of public sector undertakings in Haryana.
M-ECOE-022.4	Demonstrate knowledge of urban infrastructure, rural electrification and transport sector in Haryana.

Unit-I

Economic Progress of Haryana

Growth and Development of the economy since 1966- Trends and Pattern of GSDP; Policies and strategies of development between 1966 and 1990; Economic Reforms and development since 1991; Demographic transition of Haryana since 1966 and the factors contributed to the demographic change.

Reading List

- Aiyer, S. & Mody, A. (2011). The Demographic Dividend: Evidence from the Indian States (IMF Working Paper No. WP/11/38). Retrieved from IMF's website:
<https://www.imf.org/external/pubs/ft/wp/2011/wp1138.pdf>
- Azis, Iwan J. (2020). Regional Economics: Fundamental Concepts, Policies and Institutions. World Scientific Publishing Co. Pte. Ltd.: Singapore.
- Choudhary, D.R. (2007). *Haryana At Cross Roads: Problems and Prospects*. National Book Trust, India, New Delhi.
- Department of Economic and Statistical Analysis, Government of Haryana. *Economic Survey of Haryana (various issues)*. Panchkula.
- Department of Economic and Statistical Analysis, Government of Haryana. *Statistical Abstract of Haryana (various issues)*. Panchkula.

Unit-II

Agriculture Sector in Haryana

Agriculture Growth and Performance-Trends in production and productivity; Green Revolution; Land Reforms and Land use pattern; Changes in Cropping Pattern; Agricultural Research and Education; Agriculture Marketing; Crop Insurance Schemes; Finance to Agriculture; Livestock-Fisheries-Water Resources and-Forestry; Agricultural Crisis - Food Security.

Reading List

- Department of Economic and Statistical Analysis, Government of Haryana. *Economics of Farming in Haryana (various issues)*. Panchkula.
- Laxmi Narayan & Kaswan, Kavita Bhambu (2019). *Haryana Economy: Patterns, Potentials and Prospects*. White Falcon Publishing.
- Planning Commission (2009). *Haryana Development Report*. Government of India, New Delhi.
- Sidhu, Harbans Singh (1991). *Agricultural Development and Rural Labour: A Case Study of Punjab and Haryana*. Concept Publishing Company: New Delhi.

- Westley, John R. (2019). *Agriculture and Equitable Growth: The Case of Punjab-Haryana*. Taylor & Francis Group.

Unit-III

Industrial Sector in Haryana

Industry-Growth and Performance; Industrial Backwardness; Mining, Manufacturing and Construction Sector-Issues and Challenges; Performance of State Public Sector Undertakings; Industrial Financing; Problems and prospects of MSMEs; SEZs in Haryana; Labour Welfare Schemes.

Reading List

- Department of Economic and Statistical Analysis. *Economic Survey of Haryana (various issues)*. Panchkula.
- Department of Economic and Statistical Analysis. *Index of Industrial Production in Haryana (various issues)*. Panchkula.
- Planning Commission (2009). *Haryana Development Report*. Government of India, New Delhi.

Unit-IV

Infrastructural Status

Infrastructure in Haryana; Power Sector: Organizational Structure, Performance; Haryana Electricity Regulatory Commission, Pricing Policies & Finances; Urban Infrastructure and Haryana Urban Development Authority; Rural Electrification; Performance of Transport Sector.

Reading List

- Department of Economic and Statistical Analysis. *Economic Survey of Haryana (various issues)*. Panchkula.
- Planning Commission, Government of India (2009). *Haryana Development Report*. Government of India, New Delhi.
- Singh, M. & Kaur, H. (2004). *Economic Development of Haryana*. Deep & Deep Publications.

Mapping Matrix of Course M-ECOE-022
Table 1: CO-PO Matrix for the Course M-ECOE-022

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-022.1	3	2	3	3	2	2	3	2	-	-	2	3
M-ECOE-022.2	3	3	3	3	2	2	3	2	-	-	2	3
M-ECOE-022.3	3	2	3	3	2	3	3	2	-	-	2	3
M-ECOE-022.4	3	3	3	3	2	3	3	2	-	-	2	3
AVERAGE	3	2.5	3	3	2	2.5	3	2	-	-	2	3

Table 2: CO-PSO Matrix for the Course M-ECOE-022

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-022.1	3	2	3	2
M-ECOE-022.2	3	2	3	2
M-ECOE-022.3	3	2	3	2
M-ECOE-022.4	3	2	3	2
AVERAGE	3	2	3	2

MA ECONOMICS PART-I SEMESTER-II (W.E.F. 2020-21)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 004	Micro Economic Analysis-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC- 005	Macro Economic Analysis-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -006	Statistics for Economists	4	4	½ hrs/G		80	20	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -023	Public Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -024	Financial Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -025	Demography-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 026	Economics of Infrastructure-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -027	Economics of Insurance-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -028	Economics of Labour-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -029	Behavioural Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -030	Mathematical Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -031	Economy of Haryana-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
OESS (1 to 10)	Candidate is required to take one Option Elective, other than Economics, from the Common Lists of Papers of Social Sciences (Syllabus enclosed in the end)	2	2	½ hrs/G	-	50	-	50	2 Hrs.
Total						550			

Note: Students are required to select any two (02) elective papers. The students will select the same corresponding papers as in Semester I. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 12
Optional Credits: 08+02

M.A. Economics 2nd Semester
Paper- M-ECOC-004 (Compulsory)
MICRO ECONOMIC ANALYSIS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-004.1	Able to understand new advances in the theory of firm and think critically analyze economic problems in the context of firm.
M-ECOC-004.2	Adopt different analytical concepts and models in framing development and policy-relevant problems particularly factor pricing and income distribution.
M-ECOC-004.3	Understand the effects of various decisions on welfare of people through general equilibrium analysis.
M-ECOC-004.4	Apply Microeconomic tools to solve real life problems especially under uncertainty and game theory.

Unit-I

Managerial Theories of Firm

Critical evaluation of marginal analysis; Average Cost Pricing model; Bain's Limit Pricing Theory; Baumol's Sales Revenue Maximization model (all four static models); Marris Model of Managerial Enterprise; Williamson's Model of Managerial Discretion.

Reading List

- Bain, J. (1958). *Barriers to New Competition*. Harvard University Press, Harvard
- Hirshleifer, J. & Glazer, A. (1997). *Price Theory and Applications*. Prentice Hall of India, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics (2nd Edition)*. Macmillan Press, London.
- Pindyck, R. & Rubinfeld, D. (2018). *Microeconomics (9th Edition)*. Pearson Education.

Unit-II

Factor Pricing

Pricing of factors of production (modern approach under perfect and imperfect market); Elasticity of technical substitution and factor shares; Technical progress and factor shares; Macro theories of distribution – Ricardo, Marx, Kalecki and Kaldor.

Reading List

- Bronfenbrenner, M. (1979). *Income Distribution Theory*. Macmillan, London.
- Da Costa, G.C. (1980). *Production, Prices and Distribution*. Tata McGraw Hill, New Delhi.
- Hirshleifer, J. & Glazer, A. (1997). *Price Theory and Applications*. Prentice Hall of India, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics (2nd Edition)*. Macmillan Press, London.
- Varian, H. (2000). *Microeconomic Analysis*. W.W. Norton, New York.

Unit-III

General Equilibrium and Market Efficiency

The Walrasian approach to general equilibrium; Existence, stability and uniqueness of the partial equilibrium; Pareto Optimality; Maximization of social welfare; Market failure: Externalities, Public goods and asymmetric information; Moral Hazard and Adverse selection; The theory of second best; Economics of information –

search costs, market signaling.

Reading List

- Boadway, R.W. & Bruce, N. (1984). *Welfare Economics*. Basil Blackwell, London.
- Graff, J. De V. (1957). *Theoretical Welfare Economics*. Cambridge University Press,
- Green, H. & Walsh, V. (1975). *Classical and Neo-Classical Theories of General Equilibrium*. Oxford University Press, London.
- Hansen, B. (1970). *A Survey of General Equilibrium Systems*. McGraw Hill, New York.
- Henderson, J.M. & Quandt, R.E. (1980). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics (2nd Edition)*. Macmillan Press, London.
- Quirk, J. & Saposnik, R. (1968). *Introduction to General Equilibrium Theory and Welfare Economics*. McGraw Hill, New York.
- Weintrub, E.R. (1974). *General Equilibrium Theory*. Macmillan, London.

Unit-IV

Choice Under Uncertainty

Inter-temporal choice in consumption; Economics of Uncertainty: Risk and Uncertainty in Demand Choices, Measuring Risk, Utility Theory and Risk Aversion, Gambling and Insurance, Risk aversion and Indifference curves, Reducing risk and uncertainty, Risk pooling and risk spreading, Mean-variance analysis and portfolio selection.

Theory of Games

Extensive forms and normal forms, dominant strategies and elimination of dominant strategies, Nash equilibrium, cooperative and non-cooperative games, sequential and simultaneous games, applications with oligopoly markets- Cournot, Bertrand and Stackelberg.

Reading List

- Borch, K.H. (1968). *The Economics of Uncertainty*. Princeton University Press, Princeton.
- Diamond, P.A. & Rothschild, M. (Eds.). (1978). *Uncertainty in Economics: readings and exercises*. Academic Press, New York.
- Gravelle, H. & Rees, R. (2008). *Micro Economics*. Dorling Kindersley.
- Jehle, Geoffrey A. & Reny, Philip J. (2008). *Advanced Micro Economic Theory*. Dorling Kindersley.
- Varian, H. (2003). *Intermediate Microeconomics*. East-West Press.

Mapping Matrix of Course M-ECOC-004
Table 1: CO-PO Matrix for the Course M-ECOC-004

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-004.1	3	3	3	3	3	2	-	2	3	-	3	3
M-ECOC-004.2	3	3	3	3	3	2	-	2	3	-	3	3
M-ECOC-004.3	3	3	3	3	3	2	-	2	3	-	3	3
M-ECOC-004.4	3	3	3	3	3	2	-	2	3	-	3	3
AVERAGE	3	3	3	3	3	2	-	2	3	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOC-004

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-004.1	3	3	3	3
M-ECOC-004.2	3	3	3	3
M-ECOC-004.3	3	2	3	3
M-ECOC-004.4	3	3	3	3
AVERAGE	3	2.75	3	3

M.A. Economics 2nd Semester
Paper- M-ECOC-005 (Compulsory)
MACRO ECONOMIC ANALYSIS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-005.1	Learn and explain various theories of demand for money
M-ECOC-005.2	Understand the theories of money supply and interest rates.
M-ECOC-005.3	Identify the phases of the business cycle/inflation and the problems caused by cyclical fluctuations in the market economy and to show an ability to reflect on how economic shocks affect aggregate economic performance in the short and long term.
M-ECOC-005.4	Explain the components of aggregate economic activity in an open economy framework

Unit-I

Theory of Demand for money

Classical Approach to Demand for Money – Quantity Theory Approach; Fisher’s equilibrium; Cambridge Quantity theory; Keynes Liquidity Approach – Transaction; Precautionary and Speculative Demand for Money; Post Keynesian approaches to demand for money: Tobin (Portfolio balance approach), Baumol (Inventory theoretic approaches), Friedman (Restatement of quantity theory of money), Patinkin’s real balance effect; Akerlof and Milbourne (A-M) model; Miller-Orr model.

Reading List

- Mankiw, Gregory N. (2003). *Macroeconomics*. Worth Publishers.
- Romer, David (2012). *Advanced Macroeconomics*. McGraw Hill Education.
- Levacic, Rosalind & Rebmann, Alexander (2015). *Macroeconomics*. Macmillan, London.
- Mishkin, F.S. (2016). *The Economics of Money Banking and Financial Markets*. Pearson.
- Bain, K. & Howells, P. (2009). *Monetary Economics: Policy and its Theoretical Basis*. Macmillan International Higher Education.
- Handa, Jagdish (2000). *Monetary Economics*. Routledge, London.

Unit-II

Theory of Supply for money and Interest Rates

Measures of money supply and Monetary Aggregates; Determinants of money supply; Money Multiplier Approach; Behavioural model of Money Supply Determination; Instruments of Monetary control. Interest Rates - Time Value of Money, Risk and Uncertainty; Theories of Determination of Interest Rate: Classical, Loanable Funds and Keynesian; Theories of Term Structure of Interest Rates.

Reading List

- Mankiw, Gregory N. (2003). *Macroeconomics*. Worth Publishers.
- Mishkin, F.S. (2016). *The Economics of Money Banking and Financial Markets*. Pearson.
- Levacic, Rosalind & Rebmann, Alexander (2015). *Macroeconomics*. Macmillan, London.
- Bain, K. & Howells, P. (2009). *Monetary Economics: Policy and its Theoretical Basis*. Macmillan International Higher Education.
- Handa, Jagdish (2000). *Monetary Economics*. Routledge, London.

Unit-III

Theory of Inflation

Classical, Keynesian and Monetarist approaches; Structuralist theory of inflation; Philips curve analysis – Short run and long run Philips curve; Natural Rate of Unemployment hypothesis; Modified Philips curve - Tobin, Samuelson-Solow

Theory of Business Cycles

Business Cycle Theories of Kaldor, Samuelson, Hicks, and Kalecki; Control of business cycles – relative efficacy of monetary and fiscal policies.

Reading List

- Gali, J. (2015). *Monetary Policy, inflation and Business Cycles*. Princeton University Press.
- Lucas, R.E. (1983). *Studies in Business Cycle Theory*. MIT Press.
- Mankiw, Gregory N. (2003). *Macroeconomics*. Worth Publishers.
- Mishkin, F.S. (2016). *The Economics of Money Banking and Financial Markets*. Pearson.
- Frisch, H. (1983). *Theories of Inflation*. Cambridge University Press.
- Gali, J. (2015). *Monetary Policy, inflation and Business Cycles*. Princeton University Press.

Unit-IV

Open Economy Macroeconomics

Balance of Payment Disequilibrium and Equilibrium; Real and Nominal Exchange Rates; Dornbush Exchange rate Overshooting Model; Mundell- Fleming Model under Fixed and Flexible Exchange Rates.

Recent Developments

Role of Expectations in Economics; Adaptive Expectation hypothesis; New Classical Macroeconomics: Rational Expectation Hypothesis, Policy Ineffectiveness, Lucas Supply Curve.

Reading List

- Jha, R. (1991). *Contemporary Macroeconomic Theory and Policy*. Wiley Eastern Limited.
- Mankiw, Gregory N. (2003). *Macroeconomics*. Worth Publishers.
- Romer, David (2012). *Advanced Macroeconomics*. McGraw Hill Education.
- Romer, D. & Mankiw, N. Gregory (1995). *New Keynesian Economics (Volume-2)*. MIT Press.
- Sheffrin, Steven M. (1996). *Rational Expectations*. Cambridge University Press
- Galbacs, Peter (2015). *The Theory of New Classical Macroeconomics: A Positive Critique*. Springer.

Mapping Matrix of Course M-ECOC-005

Table 1: CO-PO Matrix for the Course M-ECOC-005

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-005.1	3	3	3	3	2	-	3	3	3	-	2	3
M-ECOC-005.2	3	2	3	3	3	-	3	3	3	-	3	3
M-ECOC-005.3	3	3	3	2	2	-	3	2	3	-	2	3
M-ECOC-005.4	3	2	3	3	2	-	3	3	3	-	2	3
AVERAGE	3.00	2.50	3.00	2.75	2.25	-	3	2.75	3	-	2.25	3

Table 2: CO-PSO Matrix for the Course M-ECOC-005

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-005.1	3	2	3	3
M-ECOC-005.2	3	3	3	2
M-ECOC-005.3	3	3	3	2
M-ECOC-005.4	3	2	3	2
AVERAGE	3.00	2.50	3.00	2.25

M.A. Economics 2nd Semester
Paper- M-ECOC-006 (Compulsory)
STATISTICS FOR ECONOMISTS

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 6 short answer type questions of 2 marks spread over the entire syllabus (2*6=12 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (12 marks each).

Course Outcomes

M-ECOC-006.1	Understand and solve the problems of construction and interpretation of index numbers for economic variables and measure various components of time series.
M-ECOC-006.2	Apply, solve and prove various probability theorems besides analyze and interpret statistical data using appropriate probability distributions.
M-ECOC-006.3	Understand, explain, solve and apply the hypothesis testing and selection of appropriate statistical technique for testing the hypothesis.
M-ECOC-006.4	Understand the estimation of degree & direction of relationship as well as cause & effect relationship between two variables.

Unit-I

Index Numbers and Time Series Analysis

Index numbers: uses, types and construction; Tests for consistency of index numbers; Base shifting, splicing and deflating of index numbers.

Time series analysis: introduction and components; Methods for measuring trend, seasonal, cyclical and irregular variations.

Reading List

- Barrow, M. (2017). *Statistics for Economics, Accounting and Business Studies*. Pearson Education.
- Croxton, F. E., Cowden, D. & Kliein, S. (1951). *Applied General Statistics*. Prentice Hall, New Delhi.
- Karmal, P.H. & Polasek, M. (1978). *Applied Statistics for Economists*. Pitman, Australia.
- Naghshpour, S. (2012). *Statistics for Economics*. Business Expert Press.
- Sharma, J.K. (2012). *Business Statistics*. Dorling Kindersley (India) Pvt. Ltd., New Delhi.

Unit-II

Probability and Sampling

Basic concepts and definitions of probability; Laws of addition and multiplication; Conditional probability; Bayes' theorem (statement); Binomial, Poisson and Normal distributions; Basic concepts of sampling- random and non-random sampling.

Reading List

- Hong, Y. (2017). *Probability and Statistics for Economists*. World Scientific Publishing Co. Pte. Ltd., Singapore.
- Mittelhammer, R. C. (2012). *Mathematical Statistics for Economics and Business*. Springer-Verlag New York, Inc.
- Speigal, M. R. (1972). *Theory and Problems of Statistics*. McGraw Hill Book, London.
- Vohra, N. D. (2006). *Quantitative Techniques in Management*. Tata McGraw Hill, New Delhi.

Unit-III

Data Analysis and Hypothesis Testing

Types of data and statistical analysis procedures: univariate, bivariate and multivariate (only overview); Hypothesis testing procedures based on Z-test, t-test, χ^2 -test, F-test and ANOVA.

Reading List

- Anderson, David R., Sweeney, Dennis J. & Williams, Thomas A. (2014). *Essentials of Statistics for Business and Economics*. South-Western Cengage Learning, USA.
- Denis, Daniel J. (2018). *SPSS Data Analysis for Univariate, Bivariate, and Multivariate Statistics*. John Wiley & Sons Inc., USA.
- Karmal, P.H. & Polasek, M. (1978). *Applied Statistics for Economists*. Pitman, Australia.
- Naghshpour, S. (2012). *Statistics for Economics*. Business Expert Press.
- Sharma, J.K. (2012). *Business Statistics*. Dorling Kindersley (India) Pvt. Ltd., New Delhi.

Unit-IV

Correlation and Regression Analysis

Correlation: Karl Pearson, Spearman's Rank and Concurrent Deviations; Introduction to simple regression analysis; Single linear equation regression model (by OLS Method), Concept of an estimator and its desirable properties; Coefficient of determination; Estimation of simple and exponential growth rates.

Reading List

- Aggarwal, B.L. (2006). *Basic Statistics*. New Age International Publishers, New Delhi.
- Gupta, S.C. & Kapoor, V.K. (2007). *Fundamentals of Applied Statistics*. S. Chand and Sons, New Delhi.
- Kamanta J. (1997). *Elements of Econometrics*. Macmillan Publishing Co., Inc. New York.
- Koutsoyiannis, A. (2001). *Theory of Econometrics*. Palgrave Macmillan Limited.

PRACTICAL EXAM: An external examiner will be appointed to conduct the practical exam of 20 marks. Students are supposed to do all Mathematical/Statistical/Financial functions in Excel software.

Mapping Matrix of Course M-ECOC-006
Table 1: CO-PO Matrix for the Course M-ECOC-006

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-006.1	3	3	3	3	3	2	2	2	-	-	3	3
M-ECOC-006.2	3	3	3	3	3	2	2	2	-	-	3	3
M-ECOC-006.3	3	3	3	3	3	2	2	2	-	-	3	3
M-ECOC-006.4	3	3	3	3	3	2	2	2	-	-	3	3
AVERAGE	3	3	3	3	3	2	2	2	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOC-006

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-006.1	3	3	2	2
M-ECOC-006.2	3	3	2	2
M-ECOC-006.3	3	3	2	2
M-ECOC-006.4	3	3	2	2
AVERAGE	3	3	2	2

M.A. Economics 2nd Semester
Paper-M-ECO-E-023 (Elective)
PUBLIC ECONOMICS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-E-023.1	Able to apply economic perspectives on activities of the government sector to become well-informed and engaged participants (citizens, voters, politicians and/or civil servants) in society.
M-ECO-E-023.2	Understand and present important international issues in public economics with regard to taxation and public goods, critically analyze the working and pricing of public enterprises and apply social costs –benefits analysis in context of various projects.
M-ECO-E-023.3	Attain fundamental in-depth knowledge of various thoughts regarding public debt along with the sustainability, burden & management of public debt and critically examine the relationship of public debt with important policy issues including inflation and economic growth.
M-ECO-E-023.4	Understand, explain, apply and present the theory of fiscal federalism in general as well as in context of India.

Unit-I

Public Choice

Rational Voter Hypothesis; Characteristics of Majority Voting Rule; Buchanan and Tullock Model, Bowen-Black Model; Arrow's Impossibility Theorem; Downs Model on Demand and Supply of Government Policy; Models of Bureaucratic Behaviour: Niskanen, Tullock; Voting and the Leviathan Hypothesis.

Reading List

- Arrow, K. (1951). *Social Choice and Individual Values*. Yale University Press.
- Boadway, Robin (1984). *Public Sector Economics*. Cambridge, Winthrop Publications.
- Cullis, John & Jones, Philip (2009). *John Public Finance and Public Choice: Analytical Perspectives*. Oxford University Press.
- Hackelman, J.C. (2004). *Readings in Public Choice Economics*. University of Michigan Press.
- Lee, D., Moretti, E. & Butler, M. (2004). Do Voters Affect or Elect Policies? Evidence from the U.S. House. *Quarterly Journal of Economics*, 119(3), 807-859.
- Piketty, T. (1999). The Information-Aggregation Approach to Political Institutions. *European Economic Review*, 43, 791-800.

Unit-II

International Issues in Public Economics

International aspects of taxation; Global Public Goods; Trade Taxes and Public Choice.

Public Enterprises

Pricing Policies in Public Enterprises- Ramsey-Boiteux Linear pricing, Marginal cost pricing, peak load pricing; Theory of Second Best; Social Cost Benefit Analysis.

Reading List

- Boadway, Robin (1984). *Public Sector Economics*. Cambridge, Winthrop Publications.
- Gordon, R. & Hines, J. (2002). International Taxation. In Auerbach, A. and Feldstein, M. (Eds.), *Handbook of Public Economics* (vol. 4). Elsevier.

- Ihori, Toshihiro (2016). *Principles of Public Finance*. Springer.
- Jha, Raghendra (1998). *Modern Public Economics*. Routledge.
- Lipsey, R.G. & Lancaster, K. (1956). The general theory of second best. *Review of Economic Studies*, 24, 11-32.
- Piketty, T. (2014). *Capital in the Twenty-First Century*. Harvard University Press.
- Zucman, G. (2014). Taxing across Borders: Tracking Personal Wealth and Corporate Profits. *Journal of Economic Perspectives*, 28(4), 121-148.

Unit-III

Issues in Public Debt

Burden Controversy of Public Debt – Classical Theory, Modern Theory, Buchanan Thesis, Secondary Burden of Public Debt; Public Debt and Inflation; Public Debt Management and Redemption of Public Debt; Public debt and economic growth; Sustainability of public debt.

Reading List

- Bagchi, Amaresh (Ed.). (2005). *Readings in Public Finance*. Oxford University Press.
- Ganguly, S. (1963). *Public Finance: A Normative Approach*. Nababharat Publishers.
- Greiner, A. & Fincke, B. (2009). *Public Debt and Economic Growth*. Springer.
- Ihori, Toshihiro (2016). *Principles of Public Finance*. Springer.

Unit-IV

Theory of Fiscal Federalism

The Decentralisation theorem; Optimum Size of Local Community; Assignment issues in multi-level Government; Tiebout Model; Theory of Intergovernmental Grants; Redistributive Impact of the Budget; Budget deficits- Sustainability, solvency and optimality; Centre-State fiscal relations in India - Theory and practice.

Reading List

- Bagchi, Amaresh (Ed.). (2005). *Readings in Public Finance*. Oxford University Press.
- Boadway, Robin (1984). *Public Sector Economics*. Cambridge, Winthrop Publications.
- Oates, W. E. (1999). An Essay on Fiscal Federalism. *Journal of Economic Literature*, 37(3), 1120-1149.
- Roemer, J. (1998). *Theories of Distributive Justice*. Harvard University Press.
- Tiebout, C.M. (1956). A Pure Theory of Local Expenditures. *Journal of Public Economics*, 64, 416-424.

Mapping Matrix of Course M-ECOE-023

Table 1: CO-PO Matrix for the Course M-ECOE-023

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-023.1	3	3	3	3	2	2	3	-	3	-	3	2
M-ECOE-023.2	3	3	3	3	2	2	3	-	3	-	3	2
M-ECOE-023.3	3	3	3	3	2	2	3	-	3	-	3	2
M-ECOE-023.4	3	3	3	3	2	2	3	-	3	-	3	2
AVERAGE	3	3	3	3	2	2	3	-	3	-	3	2

Table 2: CO-PSO Matrix for the Course M-ECOE-023

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-023.1	3	2	3	3
M-ECOE-023.2	3	2	3	2
M-ECOE-023.3	3	2	3	3
M-ECOE-023.4	3	2	3	3
AVERAGE	3	2	3	2.75

M.A. Economics 2nd Semester
Paper-M-ECOE-024 (Elective)
FINANCIAL ECONOMICS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-024.1	Understand the risk and return relationship and compute yields of bond portfolio.
M-ECOE-024.2	Understand and apply the portfolio construction, and asset pricing.
M-ECOE-024.3	Understand and apply the fundamental and technical analysis, and efficiency tests of stock markets.
M-ECOE-024.4	Understand the concept and valuation of derivatives and design hedging strategies.

Unit-I

Investment Analysis

The investment environment; Asset Classes and Financial Instruments; Risk- Return Analysis; Risk Aversion and Capital Allocation to Risky Assets; Bond Prices and Yields; Term Structure of interest Rates, Managing Bond Portfolio.

Reading List

- Bodie, Z., Kane, A. & Marcus, A.J. (2017). *Investments*. McGraw Hill Education.
- Reilly, F.K. & Brown, K.C. (2012). *Investment Analysis and portfolio management*. South-Western Cengage Learning.

Unit-II

Portfolio Optimization

Equity valuation Models; Portfolio Analysis; Markowitz Model, Sharpe Index Model, Capital asset pricing Model, Arbitrage Pricing Theory.

Reading List

- Bodie, Z., Kane, A. & Marcus, A.J. (2017). *Investments*. McGraw Hill Education.
- Grinold, R.C. & Kahn, R.N. (1999). *Active portfolio Management*. McGraw Hill.
- Reilly, F.K. & Brown, K.C. (2012). *Investment Analysis and portfolio management*. South-Western Cengage Learning.

Unit-III

Security Analysis and Theory of Options

Fundamental and Technical Security Analysis; Efficient market Theory; Introduction to Option markets; Option Valuation- Binomial Option pricing, Black – Scholes Option Pricing Model.

Reading List

- Hull, J. (1993). *Options, Futures and Other Derivative Securities*. Prentice Hall.
- Kolb, Robert (1996). *Financial Derivatives*. Wiley.
- Reilly, F.K. & Brown, K.C. (2012). *Investment Analysis and portfolio management*. South-Western Cengage Learning.

Unit-IV

Options Hedging, Future Markets and Mutual Funds

Options Hedging strategies – Delta, Gamma, Theta, Vega and Rho; Futures Markets Trading and valuation; Portfolio performance Evaluation; Economics of Mutual Funds - Sharpe, Treynor and Jensen Performance Index.

Reading List

- Reilly, F.K. & Brown, K.C. (2012). *Investment Analysis and portfolio management*. South-Western Cengage Learning.

Mapping Matrix of Course M-ECOE-024

Table 1: CO-PO Matrix for the Course M-ECOE-024

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-024.1	3	3	2	2	3	3	2	-	3	-	3	3
M-ECOE-024.2	3	3	3	2	3	2	2	-	3	-	3	3
M-ECOE-024.3	3	3	3	2	3	2	2	-	3	-	3	3
M-ECOE-024.4	3	3	3	2	3	2	2	-	3	-	3	3
AVERAGE	3	3	2.75	2	3	2.25	2	-	3	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-024

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-024.1	2	3	3	2
M-ECOE-024.2	2	3	3	2
M-ECOE-024.3	2	3	3	2
M-ECOE-024.4	2	3	3	2
AVERAGE	2	3	3	2

M.A. Economics 2nd Semester
Paper-M-ECO-025 (Elective)
DEMOGRAPHY-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-025.1	Understand logically and critically demographic data base of India and develop the ability to use it in research projects.
M-ECO-025.2	Understand and explain population migration theoretical framework as well as with special reference to India.
M-ECO-025.3	Critically analyze various population policies and strategies.
M-ECO-025.4	Understand and analyze various demographic issues like population aging, demographic dividend and social groups in India.

Unit-I

Demographic Database in India

Census in India – Methodology and Characteristics; Nature of information collected with emphasis on 2001 and 2011 Census. National Family Health Survey – Objectives & Various Rounds. Sample Surveys in India; Registration System in India.

Reading List

- DLHS Reports, www.sciips.org
- Majumdar, P.K. (2010). *Fundamentals of Demography*. Rawat Publication.
- NFHS Reports, www.sciips.org
- Pathak, K.B. & Ram, F. (2016). *Techniques of Demographic Analysis*. Himalaya Publishing House.
- Weinstein, J. & Pillai, V.K. (2015). *Demography: The Science of Population*. Rowman & Littlefield Publications.

Unit-II

Analysis of Migration

Migration: Meaning & Types, Determinants of Migration, Sources of Migration Data, International Migration, Brain Drain and Brain Gain, Theories of Migration, Migration in India.

Reading List

- Harper, S. (2018). *Demography: A Very Short Introduction*. Cambridge University Press.
- Irudaya Rajan, S. & Summeetha, M. (Eds.). (2020). *Handbook of Internal Migration in India*. Sage Publications.
- Mukherji, S. (2013). *Migration in India: Links to Urbanization, Regional Disparities, and Development Policies*. Rawat Publication.

Unit-III

Evolution of Population in India

Shift of Population Policy from Population control to Reproductive and Child health care; Family Planning Strategies and their outcomes; National Population Policy, 2000; National Population Commission.

Reading List

- Bhende, Asha A. & Kanitkar, Tara (2014). *Principles of Population Studies*. Himalaya Publishing House.

- Chandna, R. C. (2014). *A Geography of Population: Concepts, Determinants and Patterns*. Kalyani Publishers.
- Choubey, P.K. (2000). *Population Policy in India*. Kanishka Publications, New Delhi.
- Srinivasan, Krishnamurthy (2017). *Population Concerns in India: Shifting Trends, Policies & Programs*. Sage Publication.
- Srinivasan, Krishnamurthy (2019). *Bharat Mein Jansankhya Sambandhi Mudde*. Sage Publication.

Unit-IV

Demographic Issues in India

Changing Characteristics of Population of India; Strategies for Human Development of Different Social Groups; Rural and Urban Demographics; Population, economy and environment linkage; Population Aging in India- Trends and Issues; Demographic Dividend.

Reading List

- Aggarwal, S.N. (1985). *India's Population Problem*. Tata McGraw-Hill, Mumbai.
- Bose, A. (1996). *India's Basic Demographic Statistics*. B.R. Publishing Corporation, New Delhi.
- Gulati, S.C. (1988). *Fertility in India: An Econometric Study of a Metropolis*. Sage Publications, New Delhi.
- Mishra, J.P. (2018). *Demography*. Sahitya Bhawan Publication.
- Seth, M. (2000). *Women and Development: The Indian Experience*. Sage Publications, New Delhi.

Mapping Matrix of Course M-ECOE-025

Table 1: CO-PO Matrix for the Course M-ECOE-025

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-025.1	3	3	3	3	2	2	3	2	-	-	3	3
M-ECOE-025.2	3	3	3	3	2	2	3	2	-	-	3	3
M-ECOE-025.3	3	3	3	3	2	3	3	2	-	-	3	3
M-ECOE-025.4	3	3	3	3	2	3	3	2	-	-	3	3
AVERAGE	3	3	3	3	2	2.5	3	2	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-025

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-025.1	3	2	2	3
M-ECOE-025.2	3	2	2	3
M-ECOE-025.3	3	3	2	3
M-ECOE-025.4	3	3	2	3
AVERAGE	3	2.5	2	3

M.A. Economics 2nd Semester
Paper-M-ECO-026 (Elective)
ECONOMICS OF INFRASTRUCTURE-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-026.1	Understand and analyze the problems of water supply and telecom infrastructure and come out with some positive and normative solutions in these areas.
M-ECO-026.2	Understand, analyze and interpret the economics of energy, its management and pricing and coming out with some suggestive policies.
M-ECO-026.3	Understand the urbanization process and its economics and to further synthesize the knowledge of models to provide practical solutions to the problems of urbanization using appropriate tools.
M-ECO-026.4	Understand the development as well as problems of health infrastructure and its status in India along with knowing the inequality and institutional issues related with health sector.

Unit-I

Water Supply and Telecommunication

Water supply: Water utilities, urban and rural water supply; Telecommunication: Telecom reforms in India with a critique of national telecom policy; Relationship between TRAI, Department of telecom, and public and private operators; Role of telecom infrastructure in meeting needs of the economy and the IT sector.

Reading List

- Athreya, M.B. (1996). India's telecommunications policy: a paradigm shift. *Telecommunications Policy*, 20(1), 11-22.
- Green, Colin (2003). *Handbook of Water Economics: Principles and Practice*. Wiley.
- Smith P.L. & Staple, G. (1994). Telecommunication sector reforms in Asia: towards a new pragmatism (World Bank discussion paper no. 232). World Bank, Washington D.C.

Unit-II

Economics of Energy

Availability and Supply of Different Sources of Energy; Supply Constraints; Supply Scenario and Investment Requirements; Determinants of Energy Demand; Estimating Energy Demand; Price and Income Elasticity; Demand - Supply Gap; Need for Energy Demand Management; Renewable Energy Options; Methods and Principles of Energy Pricing

Reading List

- Munasinghe, M. & Meier, P. (1993). *Energy Policy Analysis and Modeling*. Cambridge University Press, U K.
- Stevens, P. (Ed.). (2000). *The Economics of Energy (Vol -I and Vol-II)*. Edward Elgar.

Unit-III

Theory of Urbanization

The Process of Urbanization- Nature and Dimensions; Clusters and Agglomeration; Sub-urbanization; Christaller's Central Place Theory; Urban Economic Base and Urban Growth; The Human Ecological Approach to Urban Growth; City Size and Urban Growth; Urban Size: Ratchet-Rank Size Rule; Optimum City Size; Urban Spatial Structure - Features; Urban Residential Land Use Models: Von Thunen, Alonso, Muth, Siegel, Park Burgess.

Reading List

- Bish, Robert L. & Nourse, Hugh O. (1975). *Urban Economics and Policy Analysis*. McGraw Hill Kogakusha Ltd. Tokyo.
- Heilbrun, James (1981). *Urban Economics and Public Policy*. St Martin's Press, New York.
- Hirsch, W.E. (1973). *Urban Economic Analysis*. McGraw-Hill Book Company, New York.
- O' Sullivan, Arther (2007). *Urban Economics*. McGraw Hill Higher Education, Boston.
- Richardson, H.W. (2013). *The New Urban Economics and Alternatives*. Routledge.

Unit-IV**Economics of Health**

Health and economic development; Determinants of Health – poverty, malnutrition, illiteracy and lack of information; Economic dimensions of health care – Demand and supply of health care; Financing of health care and resource constraints; Inequalities in health – class and gender perspectives; Institutional issues in health care delivery; Development of health infrastructure in Indian plans.

Reading List

- Feldstein, M.S. (1967). *Economic Analysis of Health Services Efficiency: Econometric Studies of the British National Health Service*. Amsterdam: North Holland.
- Folland, S., Goodman, Allen C. & Stano, M. (2016). *The Economics of Health and Health Care*. Routledge, New York.
- Planning Commission, Government of India. Five Year Plan Documents (6th to 12th Plan). New Delhi.
- Morris, S., Devlin, N. & Parkin, D. (2007). *Economic Analysis in Health Care*. John Wiley & Sons Ltd., England.
- Phelps, C. E. (2016). *Health Economics*. Routledge, New York.

Mapping Matrix of Course M-ECO-026**Table 1: CO-PO Matrix for the Course M-ECO-026**

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECO-026.1	3	3	3	3	2	3	2	2	3	2	3	2
M-ECO-026.2	3	3	3	3	2	3	2	2	3	2	3	2
M-ECO-026.3	3	3	3	3	2	3	2	2	3	2	3	2
M-ECO-026.4	3	3	3	3	2	3	2	2	3	2	3	2
AVERAGE	3	3	3	3	2	3	2	2	3	2	3	2

Table 2: CO-PSO Matrix for the Course M-ECO-026

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECO-026.1	3	2	3	3
M-ECO-026.2	3	2	3	3
M-ECO-026.3	3	2	3	3
M-ECO-026.4	3	2	3	3
AVERAGE	3	2	3	3

M.A. Economics 2nd Semester
Paper-M-ECO-E-027 (Elective)
ECONOMICS OF INSURANCE-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-E-027.1	Understand, frame and critically analyze wealth accumulation planning and retirement planning and their various products.
M-ECO-E-027.2	Understand the logic of various types of insurance and insurance business in India.
M-ECO-E-027.3	Use the standard models of risk and insurance to interpret and analyze real problems in risk and insurance.
M-ECO-E-027.4	Understand the role of insurance in development process along with problems of regulation of this sector.

Unit-I

Theory of Social Insurance

Social Insurance- Importance, need, Branches; Requirements for Efficient Social Insurance; Macroeconomic Impacts of Social Insurance; Introduction to life Insurance: Characteristics, Types, Products, Classification; Actuarial basis of Life Insurance; General provisions of life insurance contracts; Special Life insurance forms.

Reading List

- Aaron, H. (1966). The social insurance paradox. *Canadian Journal of Economics and Political Science*, 32, 371–374.
- Zweifel, Peter & Eisen, Roland. (2012). *Insurance Economics*. Springer.

Unit-II

Issues in Retirement Planning

Essentials of individual retirement planning; Analysis of retirement; Income needs; Retirement planning strategies; Investing for retirement, Pension plans; Basic principles of pension plans; Pension plans in India; Estate planning - process and tools; Life insurance for estate liquidity.

Reading List

- Zweifel, Peter & Eisen, Roland. (2012). *Insurance Economics*. Springer.

Unit-III

Insurance Planning and Pricing

Wealth accumulation planning; Life cycle planning; Planning for accumulation; Micro-insurance products. Weather insurance in Agriculture, Livelihood Risk Management using Crop Insurance; Index Based Insurance; Valuation of insurance products.

Reading List

Zweifel, Peter & Eisen, Roland. (2012). *Insurance Economics*. Springer.

Unit-IV

Introduction to Various Forms of Insurance

Fire Insurance; Marine Insurance; Property and Liability Insurance; Rural Insurance; Motor Insurance;

Miscellaneous Insurance.

Reading List

Mishra, M.N. & Mishra, S.B. (2016). *Insurance: Principles and Practice*. S. Chand Publishing, New Delhi.

Mapping Matrix of Course M-ECOE-027

Table 1: CO-PO Matrix for the Course M-ECOE-027

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-027.1	3	2	3	2	2	2	3	2	-	-	3	3
M-ECOE-027.2	3	2	3	2	2	2	3	2	-	-	3	3
M-ECOE-027.3	3	2	3	2	2	3	3	2	-	-	3	3
M-ECOE-027.4	3	2	3	2	2	3	3	2	-	-	3	3
AVERAGE	3	2	3	2	2	2.5	3	2	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-027

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-027.1	2	2	2	2
M-ECOE-027.2	2	3	2	2
M-ECOE-027.3	3	2	3	2
M-ECOE-027.4	3	2	2	2
AVERAGE	2.5	2.25	2.25	2

M.A. Economics 2nd Semester
Paper-M-ECO-028 (Elective)
ECONOMICS OF LABOUR-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-028.1	To understand the issues in wage determination, productivity and efficiency.
M-ECO-028.2	To analyze the issues in trade unionism and understand the labour legislation in context of industrial relations.
M-ECO-028.3	To analyze the social security of workers and state policy in this context.
M-ECO-028.4	To understand the specific issues of labour market like child labour, gender discrimination, labour reforms and globalization.

Unit-I

Issues in Wage Determination

Non-wage component of labour remuneration; Inflation-wage relationship at micro and macro levels; Productivity and wage relationship; Analysis of rigidity in labour markets; Asymmetric information and efficiency of labour markets in wage determination; National wage policy; Wages and Wage Boards in India; Bonus system and profit sharing.

Reading List

- Desphande L.K. & Sandesara, J.C. (Eds.). (1970). *Wage Policy and Wages Determination in India*. Bombay University Press, Bombay.
- Hicks J.R. (1932). *The Theory of Wages*. Clarendon Press, Oxford.
- Konig, H. (1990). *Economics of Wage Determination*. Springer Berlin Heidelberg.
- Madan, B.K. (1977). *The Real Wages of Industrial Workers in India*. Management Development Institute, New Delhi.
- Mazumdar, D. (1989). Micro-economic Issues of Labour Markets in Developing Countries (EDI Services Paper No. 40). World Bank, Washington D.C.

Unit-II

Industrial Relations

Theories of labour movement — Growth, pattern and structure of labour unions in India, Achievements of labour unions; Causes of industrial disputes and their settlement and prevention mechanism; Role of tripartism; Current trends in collective bargaining; Labour legislation in India.

Reading List

- Breman, J. (1996). *Footloose Labour: Working in India's Informal Economy*. Cambridge University Press.
- Memoria, C.B. (1966). *Labour Problems and Social Welfare in India*. Kitab Mahal, Allahabad.
- Papola, T.S., Ghosh P.P. & Sharma, A.N. (Eds.). (1993). *Labour, employment and Industrial Relations in India*. B.R. Publishing Corporation, New Delhi.
- Punekar, S.D. (1978). *Labour Welfare, Trade Unionism and Industrial Relations*. Himalaya Publishing House, Bombay.
- Sach, J. (1990). Social Conflict and Populist Policies in Latin America. In R. Brunnetta and C.D. Aringa (Eds.), *Labour Relations and Economic Performance*. Macmillan, Basing Stoke.

Unit-III

State and Labour

State and social security of labour — Concept of social security and its evolution; Social assistance and social insurance; Review and appraisal of states policies with respect to social security and labour welfare in India; Receding state and its effect on working of labour markets.

Reading List

- Hajela, P.D. (1998). *Labour Restructuring in India: A Critique of the New Economic Policies*. Commonwealth Publishers, New Delhi.
- Singh V.B. (Ed.). (1970). *Industrial Labour in India*. Popular Prakashan, Bombay.

Unit-IV

Issues of Labour market

Special problems of labour: Child labour, female labour, Discrimination and gender bias in treatment of labour; Labour market reforms — Exit policy, need for safety nets, measures imparting flexibility in labour markets; Second National Commission on Labour; Globalization and labour markets.

Reading List

- Deshpande, S., Standing, G. & Deshpande, L.K. (1998). *Labour Flexibility in a Third World Metropolis*. Commonwealth Publishers, New Delhi.
- Hauseman, S. (1991). *Industrial Restructuring with Job Security*. Harvard University Press, Cambridge.
- MHRD, GOI (1987). *Shram Shakti: Report of the National Commission on Self-employed Women and Women Workers in the Informal Sector*. Ministry of Human Resources Development, New Delhi.
- Misra, L. (2000). *Child Labour in India*. Oxford University Press, New Delhi.
- Riveros, L. (1990). *Labour Market Policies and Labour Market Reforms in Socialist Economies*. World Bank, Washington D.C.
- Standing G. & Tokman, V. (Eds.). (1991). *Towards Social Adjustment*. ILO, Geneva.
- Venkata Ratnam, C.S. (2001). *Globalization and Labour-Management Relations: Dynamics of Change*. Sage Publications/Response Books, New Delhi.

Mapping Matrix of Course M-ECOIE-028
Table 1: CO-PO Matrix for the Course M-ECOIE-028

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOIE-028.1	3	3	3	2	3	2	2	2	2	2	3	3
M-ECOIE-028.2	3	3	3	2	3	2	2	2	2	2	3	2
M-ECOIE-028.3	3	3	3	2	3	2	2	2	2	2	3	2
M-ECOIE-028.4	3	3	3	3	2	2	2	2	2	2	3	2
AVERAGE	3.00	3.00	3.00	2.25	2.75	2.00	2	2.00	2	2	3.00	2.25

Table 2: CO-PSO Matrix for the Course M-ECOIE-028

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOIE-028.1	2	2	2	2
M-ECOIE-028.2	2	3	3	3
M-ECOIE-028.3	2	3	3	2
M-ECOIE-028.4	3	3	3	2
AVERAGE	2.25	2.75	2.75	2.25

M.A. Economics 2nd Semester
Paper-M-ECOE-029 (Elective)
BEHAVIOURAL ECONOMICS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-029.1	Understand, explain and apply the behavioural and psychological game theory, cognitive models and theory of auctions in real life situations.
M-ECOE-029.2	Theoretically understand and explain learning models, emotions and happiness and their interrelationship in behavioural economics.
M-ECOE-029.3	Demonstrate an understanding of heuristics, bounded rationality and mental accounting along with the ability to apply them to real life situations.
M-ECOE-029.4	Understand and explain the role of behavioural economic theories in financial markets as well as in welfare economics.

Unit-I

Models of Behavioural Game Theory

Quantal Response Equilibrium (QRE); Cognitive Hierarchy Models; Psychological game Theory; Behavioural economics of Auctions.

Reading List

- Angner, Erik (2012). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhama, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Unit-II

Learning and Emotions

Reinforcement learning; Belief based models of learning; Rule based learning; Emotions and Human Behaviour; Projection bias; Temptation preference; Happiness economics; Interaction between emotions and cognition.

Reading List

- Angner, Erik (2012). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhama, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Unit-III

Judgement heuristics

Law of small numbers; Herbert Simon approach to bounded rationality; Mental Accounting.

Reading List

- Angner, Erik (2012). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhama, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Unit-IV

Bounded rationality in financial markets; Behavioural welfare economics.

Reading List

- Angner, Erik (2012). *A Course in Behavioral Economics*. Palgrave Macmillan.
- Dhami, Sanjit (2016). *The Foundations of Behavioral Economic Analysis*. Oxford University Press.

Mapping Matrix of Course M-ECOE-029

Table 1: CO-PO Matrix for the Course M-ECOE-029

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-029.1	3	3	2	2	3	2	3	-	3	-	3	3
M-ECOE-029.2	3	3	3	2	2	2	3	-	3	-	2	2
M-ECOE-029.3	3	3	3	2	3	2	3	-	3	-	3	3
M-ECOE-029.4	3	3	3	3	3	3	3	-	2	-	3	3
AVERAGE	3	3	2.75	2.25	2.75	2.25	3	-	2.75	-	2.75	2.75

Table 2: CO-PSO Matrix for the Course M-ECOE-029

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-029.1	3	2	3	3
M-ECOE-029.2	3	2	3	3
M-ECOE-029.3	3	2	3	3
M-ECOE-029.4	3	2	3	3
AVERAGE	3	2	3	3

M.A. Economics 2nd Semester
Paper-M-ECOE-030 (Elective)
MATHEMATICAL ECONOMICS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-030.1	Learn and compute factor pricing under various market conditions, multi-market equilibrium and thus able to deal with policy issues in context of multi-market system.
M-ECOE-030.2	Understand and derive mathematically the conditions of optimality, social welfare function and thus, able to draw welfare related policy implications.
M-ECOE-030.3	Analyze and present the choices made by consumers, investors and firms under uncertainty and understand the role of time element in project selection and risk - return analysis.
M-ECOE-030.4	Learn and solve input-output model, formulate national income model, inflation-unemployment relationship, multiplier-accelerator interactions and growth models developed by various economists.

Unit – I

Factor Pricing and Multi-market Equilibrium

Pricing of factors of production; Product exhaustion theorems; Multi-market equilibrium - pure exchange, production and exchange, the numeraire and money; Existence, stability and uniqueness of general equilibrium.

Reading List

- Allen, R.G.D. (1972). *Mathematical Economics*. Macmillan, London.
- Allen, R.G.D. (2002). *Mathematical Analysis for Economists*. Macmillan Press and ELBS, London.
- Chiang, A.C. (2005). *Fundamental Methods of Mathematical Economics*. McGraw Hill, New York.
- Ghatak, A. (1994). *Macroeconomics: A Mathematical Approach*. Concept Publishing Company, New Delhi.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics*. Macmillan Press, London.
- Sen, A. (1999). *Microeconomics: Theory and Applications*. Oxford University Press.
- Varian, H. (2006). *Microeconomic Analysis*. W.W. Norton, New York.

Unit – II

Welfare Economics

Pareto Optimality; The efficiency of perfect and imperfect competition; The external effects in consumption and production; Social welfare functions- The Arrow impossibility theorem; The Theory of Second Best.

Reading List

- Arrow, K. J. & Intrilligator, M. (Eds.). (1987). *Handbook of Mathematical Economics (Volumes I, II and III)*. North Holland, Amsterdam.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*, McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics*, Macmillan Press, London.
- Madnani, G.M.K. (2001). *Mathematical Economics: A Mathematical Approach to Microeconomic Theory*. Oxford & IBH Publishers.
- Varian, H. (2006). *Microeconomic Analysis*, W.W. Norton, New York.

Unit – III

Choice Under Uncertainty and Optimization Over Time

Problem of choice in situations of uncertainty and risk; Production under uncertainty; Futures market and hedging; Multi-period consumption; Time value of money and project selection criterion. Risk–return trade off.

Reading List

- Aggarwal, D. R. (2018). *Quantitative Methods*. Vrinda Publications.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*, McGraw Hill, New Delhi.
- Mehta, B. C. & Madnani, G. M. K. (2018). *Mathematics for Economists*. Sultan Chand & Sons.
- Varian, H. (2006). *Microeconomic Analysis*. W.W. Norton, New York.
- Vohra, N.D. (2008). *Quantitative Techniques in Management*. Tata McGraw Hill.

Unit – IV

Macroeconomic Models

Input-output model; National Income models (open & closed); Expected Inflation Augmented Phillips relation; Multiplier-Acceleration interaction model; Growth models – Domar, Harrod, John Robinson’s Golden Age Model, Duesenberry’s Optimum Growth Model, Solow, Meade, Kaldor.

Reading List

- Chiang, A.C. (2005). *Fundamental Methods of Mathematical Economics*. McGraw Hill, New York.
- Dernburg, T. F. & Dernburg, J. D. (1984). *Macroeconomic Analysis: An Introduction to Comparative Statics and Dynamics*. Addison-Wesley Publishing Company, Philippines.
- Ghatak, A. (1994). *Macroeconomics: A Mathematical Approach*. Concept Publishing Company, New Delhi.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*. McGraw Hill, New Delhi.
- Jha, R. (2008). *Contemporary Macroeconomics Theory and Policy*. Willey Eastern Ltd., New Delhi.
- Jones, Hywel G. (1978). *An Introduction to the Modern Theory of Economic Growth*. McGraw Hill-Kogakusha, Tokyo.

Mapping Matrix of Course M-ECO-030

Table 1: CO-PO Matrix for the Course M-ECO-030

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECO-030.1	3	3	3	3	3	2	3	-	-	-	3	3
M-ECO-030.2	3	3	3	3	3	2	3	-	-	-	3	3
M-ECO-030.3	3	3	3	3	3	2	3	-	-	-	3	3
M-ECO-030.4	3	3	3	3	3	2	3	-	-	-	3	3
AVERAGE	3	3	3	3	3	2	3	-	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECO-030

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECO-030.1	2	3	2	3
M-ECO-030.2	2	3	2	3
M-ECO-030.3	2	3	2	3
M-ECO-030.4	2	3	2	2
AVERAGE	2	3	2	2.75

M.A. Economics 2nd Semester
Paper-M-ECOE-031 (Elective)
ECONOMY OF HARYANA-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-031.1	Explain growth of social infrastructure in Haryana and analyze regional, social and gender disparities.
M-ECOE-031.2	Discuss nature and magnitude of poverty, unemployment and emigration in Haryana.
M-ECOE-031.3	Explain and analyze the evolution of planning and fiscal management in Haryana
M-ECOE-031.4	Analyze various environment issues and policy framework and regulatory mechanisms to control pollution.

Unit – I

Social Infrastructure

Basic health indicators; Educational development; Factors of Educational transition; Current Issues in Education and health; Tendencies of Exclusion; Haryana's Development Experience: Regional, Social and Gender Disparities; Human Development.

Reading List

- Department of Economic and Statistical Analysis, Government of Haryana. *Economic Survey of Haryana (various issues)*. Panchkula.
- Planning Commission, Government of India (2009). *Haryana Development Report*. Government of India, New Delhi.
- Singh, M. & Kaur, H. (2004). *Economic Development of Haryana*. Deep & Deep Publications.

Unit – II

Poverty and Emigration

Nature and magnitude of poverty since 1966; Anti-Poverty Strategies; Economic inequality; nature and magnitude of unemployment since 1966; Factors for high rates of unemployment; Labour flexibility and labour policy; Trends and pattern of emigration; Problems of emigration; Economic impacts of emigration.

Reading List

- Department of Economic and Statistical Analysis, Government of Haryana. *Economic Survey of Haryana (various issues)*. Panchkula.
- Department of Economic and Statistical Analysis, Government of Haryana (2012). *Employment and Unemployment Situation in Haryana (Publication No. 1034)*. Retrieved from <http://esaharyana.gov.in/Portals/0/64-employment-and-unemployment-situation-in-haryana.pdf>
- Irudaya Rajan, S. & Summeetha M. (Eds.). (2020). *Handbook of Internal Migration in India*. Sage Publications.
- Planning Commission (2009). *Haryana Development Report*. Government of India, New Delhi.

Unit – III

Planning and State Finance

Plan performance of the state; Plan performance of Local Self Governments; Decentralised Planning; Resource mobilization; Structure of revenue and expenditure of the state; Nature of fiscal crisis- its causes and consequences; State Finance Commissions; Fiscal Management in Haryana- a critical Appraisal.

Reading List

- Bishnoi, N. K. (2005). Fiscal Management in Haryana: A Review (Working Paper No. 34). Retrieved from National Institute of Public Finance and Policy (NIPFP), New Delhi website: https://www.nipfp.org.in/media/medialibrary/2013/04/wp05_nipfp_034.pdf
- Department of Economic and Statistical Analysis, Government of Haryana. *Economic Survey of Haryana (various issues)*. Panchkula.
- Department of Economic and Statistical Analysis, Government of Haryana. *An Analysis of State Finances (various issues)*. Panchkula.
- Laxmi Narayan & Kaswan, Kavita Bhambu (2019). *Haryana Economy: Patterns, Potentials and Prospects*. White Falcon Publishing.
- Planning Commission (2009). *Haryana Development Report*. Government of India, New Delhi.

Unit – IV**Environmental Issues**

Sources of pollution-deforestation, soil erosion, air and water; Policy framework and regulatory mechanisms to control pollution; Waste management; Tourism and Environmental impact.

Reading List

- Choudhary, D.R. (2007). *Haryana At Cross Roads: Problems and Prospects*. National Book Trust, India, New Delhi.
- Department of Economic and Statistical Analysis. *Economic Survey of Haryana (various issues)*. Government of Haryana, Panchkula.
- Planning Commission, Government of India (2009). *Haryana Development Report*. Government of India, New Delhi.

Mapping Matrix of Course M-ECOE-031**Table 1: CO-PO Matrix for the Course M-ECOE-031**

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-031.1	3	2	3	2	2	2	3	2	-	2	2	2
M-ECOE-031.2	3	2	3	2	2	2	3	2	-	2	2	2
M-ECOE-031.3	3	2	3	2	2	3	3	2	-	2	2	2
M-ECOE-031.4	3	2	3	2	2	3	3	2	-	2	2	2
AVERAGE	3	2	3	2	2	2.5	3	2	-	2	2	2

Table 2: CO-PSO Matrix for the Course M-ECOE-031

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-031.1	2	2	2	2
M-ECOE-031.2	2	2	2	2
M-ECOE-031.3	2	2	2	2
M-ECOE-031.4	2	2	2	2
AVERAGE	2	2	2	2

MA ECONOMICS PART-II SEMESTER-III (W.E.F. 2021-22)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 007	International Trade and Finance-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC-008	Economics of Growth and Development-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -009	Indian Economic Policy-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -010	Practical: Statistical Software for Data Analysis and Project Work	4	-	-	6	Practical viva-voce 20	Practical File and Project 80	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -032	Economics of Environment and Social Sector-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -033	Econometrics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -034	History of Economic Thought-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 035	Economics of Agriculture-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -036	Welfare Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -037	Industrial Economics-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -038	Financial Markets and Institutions-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -039	Economics of Gender and Development-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -040	Economics and Law-I	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -041	Research Methodology	4	4	½ hrs/G	-	80	20	100	3Hrs.
OESS(11 to 20)	Same Note as in Sem. II	2	2	½ hrs/G	-	50	-	50	2Hrs.
Total						550			

Note: 1. Students are required to select any two (02) elective papers. The students will select the same corresponding papers in Semester IV. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 16 Optional Credits: 08+02

1. The students who opt for M-ECOE-041 (Research Methodology) are bound to opt M-ECOE -051 (Dissertation) in their 4th semester.

M.A. Economics 3rd Semester
Paper- M-ECOC-007 (Compulsory)
INTERNATIONAL TRADE AND FINANCE-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-007.1	Understand, explain, compare and critically evaluate the classical and neo classical trade theories.
M-ECOC-007.2	Learn, compare and critically evaluate the new trade theories and their relevance in today's scenario.
M-ECOC-007.3	Understand the pattern, scope, potential and related issues of trade in services.
M-ECOC-007.4	Understand the theories of protection and develop the ability to appreciate the economic integration and its impacts.

Unit – I

Classical Trade Theories

Mercantilism; Theories of Absolute and Comparative Advantage (Real and opportunity Cost approaches); Gains from Trade (Offer Curve Analysis), Term of Trade and its Computation.

Neo Classical Trade Theories

Heckscher-Ohlin Model, Factor Price Equalization Theorem, Empirical Verification of H.O. theory, Effect of Growth on Trade: Immiserating Growth, Ryzbczynski Theorem.

Reading List

- Batra, R. N. (1973). *Studies in the Pure Theory of International Trade*. St. Martin's Press, August.
- Bhagwati, J. N. (1987). *International trade: Selected readings*. MIT Press, Cambridge.
- Ethier, W. J. (1995). *Modern International economics*. W.W. Norton & Co.
- Heffernan, S. & Sinclair, P. (1991). *Modern International economics*. Wiley-Blackwell.
- Jhonson, H. (1958). *International trade & economic growth*. Harvard University Press, Cambridge.
- Lindert, P. H. & Pugel, T. A. (2008). *International economics*. McGraw-Hill.

Unit – II

New Trade Theories

Kravis and Linder Theory of Trade, Posner's Imitation Gap, Vernon's Product Life Cycle Theory, Intra-Industry Trade: Causes, emergence and measurement; intra industry Trade models: Neo. H.O Models, Neo-Chamberlin models, Neo-Hotelling models; Oligopolistic models of Intra Industry Trade: Brander-Krugman Model, Reciprocal Dumping Models, Gravity Model, Porter Diamond Model, Empirical work in intra-industry Trade: Balassa Index, Grubel-Lloyd Index, Acquino Index, Bergstrand Index.

Reading List

- Borkakoti, J. (1998). *International trade: Causes & Consequences*. MacMillan, London.
- Helpman, E. & Krugman, Paul R. (1989). *Trade policy and market structure*. The MIT Press.
- Krugman, Paul R. (1994). *Rethinking international trade*. MIT Press.
- Vernon, Raymond (1966). International Investment and International Trade in the Product Cycle. *Quarterly Journal of Economics*, 80(2), 190-207.

Unit – III

Trade in Services

Emerging pattern of services trade-The scope and potential of services trade in developing countries-GATS; Trade in Factors of Production and in Intermediate Goods-Capital inflow and welfare; Emigration versus capital

inflow-Fragmentation, Outsourcing and trade. Trade vs non-trade goods.

Reading List

- Cattaneo, O., Engman, M., Saez, S. & Stern, Robert M. (Eds.). (2010). *International Trade in Services: New Trends and Opportunities for Developing Countries*. The World Bank.
- Findlay, C. & Warren, T. (Eds.). (2013). *Impediments to Trade in Services: Measurement and Policy Implications*. Routledge, New York.
- Mattoo, A., Stern, Robert M. & Zanini, Gianni (Eds.).(2008). *A Handbook of International Trade in Services*. Oxford University Press.
- Panizzon, M., Pohl, N. & Sauve, P. (Eds.). (2008). *GATS and the Regulation of International Trade in Services*. Cambridge University Press.

Unit – IV

Trade Policy

Free trade and Protection; Tariffs, Quotas and Non-Tariff barriers; Effects of tariff - Metzler Paradox, Optimum Tariff, Effective rate of Protection, Quotas and other non-tariff barriers-technical/quality/safety standards (regulations); Economic integration theory of customs union, partial and general equilibrium analysis, dynamic effects; Integration experiences-European Union, BRICS, NAFTA, ASEAN, Multilateral trade negotiations-the GATT rounds, UNCTAD and evolution of world trading arrangements, World Trade Organization and fair trade-Development Round, Trade Facilitation, Trade War.

Reading List

- Aggarwal, M. R. (1979). *Regional Economic Cooperation in South Asia*. S. Chand and Co.
- Bhagwati, Jagdish (1969). *Trade tariffs & growth*. The MIT Press.
- Bhalla, & Bhalla, (1997). *Regional Blocs*. Palgrave MacMillan.
- Bhandari, S. (1998). *WTO & Developing Countries*. Deep & Deep Publications.
- Corden (1971). *Theory of Protection*. Clarendon Press, Oxford.
- Greenaway, David (1983). *International trade policy: From Tariffs to the New Protectionism*. Macmillan Publishers Limited, London.

Mapping Matrix of Course M-ECOC-007
Table 1: CO-PO Matrix for the Course M-ECOC-007

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-007.1	3	3	3	3	3	3	2	-	-	-	3	3
M-ECOC-007.2	3	3	3	3	3	2	2	-	-	-	3	3
M-ECOC-007.3	3	3	3	3	3	3	3	-	-	-	3	3
M-ECOC-007.4	3	3	3	3	3	3	3	-	-	-	3	3
AVERAGE	3	3	3	3	3	2.75	2.5	-	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOC-007

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-007.1	3	3	3	2
M-ECOC-007.2	3	3	3	2
M-ECOC-007.3	3	3	3	2
M-ECOC-007.4	3	3	3	2
AVERAGE	3	3	3	2

M.A. Economics 3rd Semester
Paper- M-ECOC-008 (Compulsory)
ECONOMICS OF GROWTH AND DEVELOPMENT-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-008.1	To understand, analyze and interpret the nature of growth & development with a view to measure and mark its trajectory.
M-ECOC-008.2	To analyse and understand the classical growth models, role of innovations and stages of growth with their historical origins and role.
M-ECOC-008.3	To analyse and understand the neo-classical and Cambridge growth models with mathematical treatment.
M-ECOC-008.4	To analyse and understand the new growth theory with focus on human resource development, knowledge, technical progress.

Unit I

Concepts & Measurement of Economic Development

Economic growth, Economic development and Sustainable development; MDGs and SDGs. Historical perspective of Economic Growth and its relevance; Structural diversity and common characteristics of developing nations.

Measuring Development: Income Measures, Basic Needs Approach, PQLI, HDI and Capabilities Approach; Goulet's core values of development.

Poverty, Inequality and Development: Measurement, Impact and Policy options.

Reading List

- Barro, R. J. & Sala-i-Martin, X. (2004). *Economic Growth*. MIT Press.
- Behrman, S. & Srinivasan, T.N (Eds.).(1995). *Handbook of Development Economics, Vol. 3*. Elsevier, Amsterdam.
- Chenery, H. & Srinivasan, T.N. (Eds.) (1989). *Handbook of Development Economics, Vol. 1 & 2*. Elsevier, Amsterdam.
- Schultz, Paul T. & Strauss, J. (Eds.). (2008). *Handbook of Development Economics, Vol. 3*. Elsevier, Amsterdam.
- Sen, A.K. (Ed.). (1990). *Growth Economics*. Penguin, Harmondsworth.

Unit-II

Theories of Growth and Development

Contributions of Adam Smith, Ricardo, Karl Marx and Schumpeter, Rostow's Theory of Stages of Economic Growth.

Reading List

- Adelman, I. (1961). *Theories of Economic Growth and Development*, Stanford University Press, Stanford.
- Higgins, B. (1959). *Economic Development*. W.W. Norton, New York.
- Kindleberger, C.P. (1977). *Economic Development*. McGraw Hill, New York.
- Meier, G.M. & Rauch, J.E. (2005). *Leading Issues in Economic Development*. Oxford University Press, New Delhi.
- Thirlwal, A.P. (1999). *Growth and Development*. Macmillan, U.K.
- Todaro, M.P. & Smith, S.C. (2003). *Economic Development*. Pearson Education, Delhi.

Unit-III

Growth Models

Harrod and Domar: Instability of equilibrium; Neo Classical Growth Models: Solow and Meade; Cambridge Growth Models: Joan Robinson, Kaldor and Pasinetti.

Reading List

- Jones, H.G. (1975). *An Introduction to Modern Theories of Economic Growth*. Nelson, London.

Unit-IV

New Growth Theory

Production Function Approaches: Learning by Doing; Total Factor Productivity; Ramsay's rule and optimal saving; Golden Rule of Accumulation; Technical Progress: Hicks and Harrod; Endogenous Growth Models (Romer, Uzawa-Lucas, AK).

Reading List

- Brown, M. (1966). *On the Theory and Measurement of Technical Change*. Cambridge University Press, Cambridge.
- Chakravarti, S. (1982). *Alternative Approaches to the Theory of Economic Growth*. Oxford University Press, New Delhi.
- Ghatak, S. (1986). *An Introduction to Development Economics*. Allen and Unwin, London.
- Gillis, M., Perkins, D.H., Romer, M. & Snodgrass, D.R. (1992). *Economics of Development*. W.W. Norton, New York.

Mapping Matrix of Course M-ECOC-008

Table 1: CO-PO Matrix for the Course M-ECOC-008

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-008.1	3	3	3	3	3	2	2	3	2	-	2	3
M-ECOC-008.2	3	2	3	2	2	2	2	3	2	-	2	3
M-ECOC-008.3	3	2	3	2	2	2	2	3	2	-	2	3
M-ECOC-008.4	3	3	3	3	3	2	2	3	2	-	2	3
AVERAGE	3.00	2.50	3.00	2.50	2.50	2.00	2	3.00	2.00	-	2.00	3

Table 2: CO-PSO Matrix for the Course M-ECOC-008

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-008.1	3	3	3	3
M-ECOC-008.2	3	3	2	2
M-ECOC-008.3	3	3	2	2
M-ECOC-008.4	3	3	2	2
AVERAGE	3.00	3.00	2.25	2.25

M.A. Economics 3rd Semester
Paper- M-ECOC-009 (Compulsory)
INDIAN ECONOMIC POLICY-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-009.1	Peep into the history of economic development and critically evaluate the trends in National Income in India.
M-ECOC-009.2	Understand the development of human and physical capital formation in India.
M-ECOC-009.3	Utilize the detailed skills and techniques to address the problems of Indian economy like poverty, inequality, unemployment.
M-ECOC-009.4	Understand the trends in Indian public finances.

Unit – I

Evolution of Indian Economic Thought

Indian Economy during the planning era; Planning Commission to NITI Aayog; Sustainable Development Goals and Indian Economy; Trends of national income in India.

Reading List

- Kapila, Uma (2014-2015). *Indian Economy since independence*. Academic Foundation, New Delhi.
- Lokanathan, V. (2018). *A History of Economic Thought*. S. Chand & Co. Ltd., Chandigarh.
- Mishra, S. K. & Puri, V.K. (2020). *Indian Economy*. Himalaya Publishing House, New Delhi.
- Ministry of Finance (2020). *Economic Survey*. Government of India.
- Roy, Tirthankar (2015). *The Economic History of India 1857-1947*. Oxford University Press.

Unit-II

Strategy of balanced regional development

Capital formation in India; India's Development Experience; Population Policy 2000; Natural Resources and Problem of sustainable economic development; Issues and policies in financing infrastructure development in India.

Reading List

- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam's Indian Economy*. S. Chand Publishing House.
- Dhar, P.K. (2020). *Indian Economy: Its Growing Dimensions*. Kalyani Publishers, New Delhi.
- Ministry of Finance (2020). *Economic Survey*. Government of India.
- Nachimuthu, V. (2009). *Regional Economic Disparities in India*. New Century Publications.
- Venugopal K.R. (2007). *Growth, imbalance and Indian Economy*. I.K. International Publishing House Pvt.-Ltd., New Delhi.

Unit-III

Structural change in Indian Economy

Social Sector Reforms: Education, Health, Housing; Poverty, Inequality and Unemployment in India; MGNREGA; Tax Reforms and Policy; Parallel Economy in India.

Reading List

- Biswas, P.K. & Das, P. (Eds.). (2019). *Indian Economy: Reforms and Development*. Springer.

- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam's Indian Economy*. S. Chand Publishing House.
- Dwivedi, Rishi Muni (2011). *Energy Sources and Policies in India*. New Century Publication, New Delhi.
- Kapila, Uma (2014-2015). *Indian Economy since independence*. Academic Foundation, New Delhi.
- Mahajan, Madhur M. (2019). *Indian economy*. Pearson Education, New Delhi.
- Meier, Gerald M. (1987). *Pioners in Development*. Oxford University Press, New Delhi.
- Ministry of Finance (2020). *Economic Survey*. Government of India.
- Mishra, S. K. & Puri, V.K. (2020). *Indian Economy*. Himalaya Publishing House, New Delhi.

Unit-IV

Indian Public Finance

Budgetary Policy in India since 1951 (a Brief Review); Trends in the Expenditure of the Central Government; Sources of Tax Revenue of the Central and State Governments; Extent, Effects and Limit of Deficit Financing in India; Trends and Composition of Public Debt in India; Recommendations of the Fourteenth Finance Commission; Centre/State Conflict on Finances.

Reading List

- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam's Indian Economy*. S. Chand Publishing House.
- Dwivedi, Rishi Muni (2011). *Energy Sources and Policies in India*. New Century Publication, New Delhi.
- Ministry of Finance (2020). *Economic Survey*. Government of India.
- Sinha, Yashwant & Srivastava, Vinay K. (2017). *The Future of Indian Economy: Past Reforms and Challenges ahead*. Rupa Publications, New Delhi.

Mapping Matrix of Course M-ECOC-009
Table 1: CO-PO Matrix for the Course M-ECOC-009

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-009.1	3	2	3	2	2	2	3	2	-	-	2	3
M-ECOC-009.2	3	3	3	2	2	2	3	2	-	-	2	3
M-ECOC-009.3	3	2	3	3	2	3	3	2	-	-	2	3
M-ECOC-009.4	3	3	3	3	2	3	3	2	-	-	2	3
AVERAGE	3	2.5	3	2.5	2	2.5	3	2	-	-	2	3

Table 2: CO-PSO Matrix for the Course M-ECOC-009

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-009.1	3	2	2	2
M-ECOC-009.2	3	2	2	2
M-ECOC-009.3	3	2	2	2
M-ECOC-009.4	3	2	2	2
AVERAGE	3	2	2	2

M.A. Economics 3rd Semester
Paper- M-ECOC-010 (Compulsory)
**PRACTICAL: STATISTICAL SOFTWARE FOR DATA ANALYSIS
AND PROJECT WORK**

Total Credit: 4
Time: 3 Hrs.
Marks: 100
Practical File and
Project: 80
Practical viva-voce : 20

FRAMEWORK OF THE PAPER

Component 1 (PRACTICAL WORK): Students are required to prepare a practical file by applying statistical tools on a dataset in a statistical software thereby mentioning the commands and output. For this, topics will be assigned by the teacher from the 4 units.

Component 1 has a weightage of 60 marks (4 UNITS *15 marks each)

Component 2 (PROJECT WORK): Students will be assigned a topic on which he/she will conduct a small sample survey using primary/secondary data. The collected data will be analyzed using the suitable tools mentioned in the syllabus. The students will prepare a write up containing the problem formulation, theoretical framework, analysis and discussion etc. on the chosen topic.

Component 2 has a weightage of 20 marks.

The concerned teacher will assign marks out of 80 by evaluating the practical file.

Component 3 (VIVA VOCE): Students are required to appear in the viva-voce examination based on the syllabus for which an external examiner will be appointed. It will have a weightage of 20 marks.

Course Outcomes

M-ECOC-010.1	Develop the ability to conduct a survey using primary or secondary data.
M-ECOC-010.2	Students will be able to use ICT based softwares to analyze data.
M-ECOC-010.3	Students will develop their research paper writing skills.
M-ECOC-010.4	Students will be able to learn statistical techniques in a better way by applying these in project work.

Unit – I

Data Entry; Presenting the Data: Counts and Bar Charts, Histogram, Multivariate Tables, Scatter Plots and 3D Plots, Categorized Plots; Summarising the Data: Arithmetic Mean, Median, Quantiles, Mode, Range, Inter-quartile range, Variance, Standard Deviation, Skewness, Kurtosis.

Unit-II

Measures of Association for Continuous Variables- Partial Correlation, Measures of Association for Ordinal Variables- The Spearman Rank Correlation, The Gamma Statistic, Measures of Association for Nominal Variables- The Phi Coefficient, The Lambda Statistic, The Kappa Statistic.

Unit-III

Estimating Data Parameters- Point Estimation and Interval Estimation, Estimating a Mean, Estimating a Proportion, Estimating a Variance, Estimating a Variance Ratio; Parametric Tests of Hypotheses: Inference on One Population- Testing a Mean, Testing a Variance; Inference on Two Populations- Testing a Correlation, Comparing Two Variances- The F Test, Comparing Two Means- Independent Samples and Paired Samples.

Unit-IV

Inference on More than Two Populations: One-Way ANOVA, Two-Way ANOVA; Non-Parametric Tests of Hypotheses: Inference on One Population- The Runs Test, The Binomial Test, The Chi-Square Goodness of Fit Test, The Kolmogorov-Smirnov Goodness of Fit Test, The Shapiro-Wilk Test for Normality, contingency table, The Chi-Square Test of Independence, Inference on Two Populations- Tests for Two Independent Samples, The Kolmogorov-Smirnov Two-Sample Test, The Mann-Whitney Test, The Sign Test, The Wilcoxon Signed Ranks Test, Inference on More Than Two Populations- The Kruskal-Wallis Test for Independent Samples, The Friedmann Test for Paired Samples; Simple Linear Regression Model.

Mapping Matrix of Course M-ECOC-010

Table 1: CO-PO Matrix for the Course M-ECOC-010

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-010.1	3	3	3	3	3	3	-	3	3	-	3	3
M-ECOC-010.2	3	3	3	3	3	3	-	3	3	-	3	3
M-ECOC-010.3	3	3	3	3	3	3	-	3	3	-	3	3
M-ECOC-010.4	3	3	3	3	3	3	-	3	3	-	3	3
AVERAGE	3	3	3	3	3	3	-	3	3	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOC-010

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-010.1	3	3	3	3
M-ECOC-010.2	3	3	3	3
M-ECOC-010.3	2	3	3	2
M-ECOC-010.4	2	2	3	2
AVERAGE	2.5	2.75	3	2.5

M.A. Economics 3rd Semester
Paper- M-ECOE-032 (Elective)
ECONOMICS OF ENVIRONMENT AND SOCIAL SECTOR-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-032.1	The students shall be able to comprehend the complexity of relations between environment, ecology and economics.
M-ECOE-032.2	To understand why the state or markets may fail to allocate the environmental resources optimally or to achieve the desirable environmental quality level.
M-ECOE-032.3	To understand the evolution of environmental policy in general and specifically for India.
M-ECOE-032.4	To learn & equip with the use of environmental valuation techniques and policy mix instruments.

Unit –I

Market Efficiency and Market Failure

Environment, ecology and economy; Pareto optimality and perfect competition; External effects in production and consumption; Market failure in case of environmental goods -incomplete markets, externalities, non-exclusion; non-rivalry; non-convexities and asymmetric information.

Reading List

- Bhattacharya, Rabindra Nath (2002). *Environmental Economics: An Indian Perspective*. Oxford India.
- Hanley, N., Shogern, J.F. & White, B. (1997). *Environmental Economics in Theory and Practice*. Macmillan.
- Henderson, J. M. & Quandt, R.E. (2003). *Microeconomic Theory: A Mathematical Approach*, McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1979). *Modern Microeconomics*, Macmillan Press, London.

Unit –II

Environment Policy and Regulations

Environmental policy framework in India - problems of command & control regime; New Environment Policy. Natural resources: types, classification and scarcity; Elementary capital theory; Economics of natural resources.

Reading List

- Bhattacharya, Rabindra Nath (2002). *Environmental Economics: An Indian Perspective*. Oxford India.
- Chary, S.N. and Vyasulu, Vinod (2000). *Environmental Management - an Indian Perspective*. Macmillan, New Delhi.
- Hanley, N., Shogern, J.F. & White, B. (1997). *Environmental Economics in Theory and Practice*. Macmillan.
- Sankar, U. (Ed.). (2001). *Environmental Economics*. Oxford University Press, New Delhi.
- Ministry of Environment & Forest Website.

Unit –III

Environment Protection Instruments

Economic instruments for environmental protection: Pollution charges, ambient charges, product charges, subsidies; Liability rules - non-compliance fees, deposit refund system, performance bonds; Marketable pollution permits; Evaluative criteria of and practical conditions for use of the economic incentives; Mixed instruments; Choice among policy instruments; Estimation of marginal cost of pollution abatement for designing the pollution tax.

Reading List

- Hanley, N., Shogern, J.F. & White, B. (1997). *Environmental Economics in Theory and Practice*. Macmillan.
- Hussen, A.M. (1999). *Principles of Environmental Economics*. Routledge, London.
- James, A.J., Murty, M. N. & Misra, Smita (1999). *Economics of Water Pollution – The Indian Experience*. Oxford University Press, New Delhi.
- Jeroen. C.J.M. & Bergh, Van Den (1999). *Handbook of Environmental and Resource Economics*. Edward Elgar Publishing Ltd., U.K.
- Painuly, J. P. (1995). *Economic Instruments: Application to Environmental Problems* (Working paper no 3). Risø National Laboratory, UNEP Risø Centre. UNEP Collaborating Centre on Energy and Environment, Denmark.
- Pearce, D.W. & Turner R. (1991). *Economics of Natural Resource Use and Environment*. John Hopkins University Press, Baltimore.
- Sankar, U. (Ed.). (2001). *Environmental Economics*. Oxford University Press, New Delhi.

Unit –IV

Valuation of Environmental Costs and Benefits

Coase's bargaining solution and collective action. Measures of economic value of environment WTP and WTAC; Contingent valuation method; Travel cost method; Hedonic market methods; Averting behaviour approach - household health production function method.

Reading List

- Cropper, Maureen (1999). *Valuing Environmental Benefits*. Edward Elgar.
- Hanley, N., Shogern, J.F. & White, B. (1997). *Environmental Economics in Theory and Practice*. Macmillan.
- James, A.J., Murty, M. N. & Misra, Smita (1999). *Economics of Water Pollution – The Indian Experience*. Oxford University Press, New Delhi.
- Sankar, U. (Ed.). (2001). *Environmental Economics*. Oxford University Press, New Delhi.

Mapping Matrix of Course M-ECOE-032
Table 1: CO-PO Matrix for the Course M-ECOE-032

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-032.1	3	3	2	2	2	3	3	2	3	-	2	2
M-ECOE-032.2	3	3	3	3	2	3	3	2	3	-	2	2
M-ECOE-032.3	3	3	3	2	2	3	3	3	3	-	2	3
M-ECOE-032.4	3	3	3	3	2	3	3	3	3	-	2	3
AVERAGE	3.00	3	2.75	2.50	2	3	3.00	2.50	3	-	2	2.5

Table 2: CO-PSO Matrix for the Course M-ECOE-032

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-032.1	3	-	3	2
M-ECOE-032.2	3	3	3	2
M-ECOE-032.3	3	-	3	3
M-ECOE-032.4	3	3	2	2
AVERAGE	3.00	3.00	2.75	2.25

M.A. Economics 3rd Semester
Paper- M-ECOE-033 (Elective)
ECONOMETRICS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-033.1	Able to estimate and interpret linear regression models.
M-ECOE-033.2	Explain the problems that arise when the assumptions of linear regression model are not valid.
M-ECOE-033.3	Develop solutions to the problems that results from violating the assumptions.
M-ECOE-033.4	Understand the tools of econometrics and applying them in practice.

Unit – I

Introduction to Econometrics

Definition, Scope and Methodology of Econometrics, Simple Linear Regression Model; OLS Estimates and Their Properties. Functional forms of Regression Models, Growth Rates.

Reading List

- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Johnston J. (1991). *Econometric Methods*. McGraw Hall Book Co. London.
- Kmenta J. (1998). *Elements of Econometrics*. University of Michigan Press, New York.
- Koutsoyiannis, A. (1977). *Theory of Econometrics*. The Macmillan Press Ltd. London.
- Pindyck R.S. & Rubinfeld, D.L. (1976). *Econometric Models and Economic Forecasts*. McGraw Hill Kogakusha Tokyo.

Unit – II

Multiple Regression Analysis

General Linear regression Model, Maximum Likelihood Estimates and their properties. R^2 and adjusted R^2 ; Significance Testing of Parameters in Multiple Regression Analysis.

Reading List

- Amemiya, T. (1985). *Advanced Econometrics*. Harvard University Press, Cambridge, Mass.
- Baltagi, B.H. (1988). *Econometrics*. Springer, New York.
- Goldberger, A.S. (1998). *Introductory Econometrics*. Oxford University Press, New York.
- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Intrilligator, M.D. (1978). *Econometric Methods, Techniques and Applications*. Prentice Hall Englewood Cliffs, New Jersey.
- Koutsoyiannis, A. (1977). *Theory of Econometrics*. The Macmillan Press Ltd. London.
- Maddala G.S. (Ed.) (1993). *Econometric Methods and application*. Aldershot U.K.
- Theil H. (1981). *Introduction to Econometrics*. Prentice Hall of India, New Delhi.

Unit – III

Econometric Problems–I

Nature, Test, Consequences and remedial steps of problem of Heteroscedasticity, Multicollinearity and Autocorrelation; Generalized Least Square.

Reading List

- Amemiya, T. (1985). *Advanced Econometrics*. Harvard University Press, Cambridge, Mass.
- Baltagi, B.H. (1988). *Econometrics*. Springer, New York.
- Goldberger, A.S. (1998). *Introductory Econometrics*. Oxford University Press, New York.
- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Johnston J. (1991). *Econometric Methods*. MCGraw Hall Book Co. London.
- Kmenta J. (1998). *Elements of Econometrics*. University of Michigan Press, New York.
- Koutsoyiannis, A. (1977). *Theory of Econometrics*. The Macmillan Press Ltd. London.

Unit – IV

Econometric Problems–II

Types of Specification Errors, Errors of Measurement.

Simultaneous Equation Models

The Simultaneous Equation bias and Consistency of OLS Estimators; The Identification Problem; Rules of Identification- Order and Rank Conditions.

Reading List

- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1977). *Theory of Econometrics*. The Macmillan Press Ltd. London.
- Madnani, G.M.K. (2004). *Introduction to Econometrics: Principles and Applications*. Oxford & IBH Publishing Co. Pvt. Ltd. New Delhi.

Mapping Matrix of Course M-ECO-033
Table 1: CO-PO Matrix for the Course M-ECO-033

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECO-033.1	3	2	3	3	3	2	3	2	-	-	3	3
M-ECO-033.2	3	3	3	3	3	2	3	2	-	-	3	3
M-ECO-033.3	3	2	3	3	3	3	3	2	-	-	3	3
M-ECO-033.4	3	3	3	3	3	3	3	2	-	-	3	3
AVERAGE	3	2.5	3	3	3	2.5	3	2	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECO-033

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECO-033.1	3	2	2	2
M-ECO-033.2	3	2	2	2
M-ECO-033.3	3	3	2	2
M-ECO-033.4	3	3	2	2
AVERAGE	3.00	2.5	2	2

M.A. Economics 3rd Semester
Paper- M-ECOE-034 (Elective)
HISTORY OF ECONOMIC THOUGHT-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-034.1	To understand, analyze and interpret evolution of mercantilist theories, physiocracy and classical political economy.
M-ECOE-034.2	To understand, analyze and interpret the Ricardian & Malthusian theories of value, distribution, rent, international trade and population growth.
M-ECOE-034.3	To understand, analyze and interpret the Marxian theory of surplus value, Marshallian consumer surplus and related concepts.
M-ECOE-034.4	To develop an insight in the monetary economics emanating from neo-classical school and its departure from pure competition.

Unit-I

General outline of Mercantilist theories

Jean Baptiste Colbert, Sir William Petty.

Physiocracy

Basic principles and policies, natural order, tableau economique.

Classical Political Economy

Adam Smith: division of labour, Theory of Value, Economic Development.

Reading List

- Blaug, M.(1997). *Economic Theory in retrospect*. Cambridge University Press, Cambridge.
- Da Costa,G.C. (1985). *Production, Prices and Distribution*. TMH,NewDelhi.
- Dasgupta, A.K.L. (1985).*Epochs of Economic Theory*. Oxford University Press,New Delhi.
- Gill, Richard (1972). *Evolution of Modern Economics*. Prentice Hall ofIndia.
- Robert B. Ekelund, Jr. & Hebert, Robert F. (1990). *A History of Economic Theory and Method*. McGraw Hill Publications, New York.
- Roll, Eric (1973). *A History of Economic Thought*. Faber, London.
- Screpanti, E. & Zamagni, S. (2005).*An Outline of the History of Economic Thought (Translated by David Field and Lynn Kirby)*. Oxford University Press.
- Vohra, P. &Mehta,R. *Encyclopedia of World Great Economists*. Commonwealth.

Unit-II

Thoughts of Ricardo and Malthus

David Ricardo: Theory of value, Theory of Distribution, Doctrine of Rent, Views on International Trade, Theory of Economic Development and the Stationary State, Critique by Sraffa.

T.R. Malthus: Theory of Population and Theory of Gluts - Critics of Classicism.

Reading List

- Brue, S. L. & Grant, R.R.(2013). *The Evolution of Economic Thought*. South-Western Cengage Learning, USA.
- Hunt, E.K. (1990).*History of Economic Thought*. Wodsworth.
- Morgan M. S. (1990). *A History of Economic Ideas*. Cambridge University Press. U.K.

- Puttaswamaiah, K. (1995). *Nobel Economists-Lives and Contributions*. Indus Publications Co.,New Delhi.

Unit-III

Marxian and Marshallian Thoughts

Karl Marx: Materialistic Interpretation of history, Labour Theory of Value and Surplus Value.

Neo-Classical School: Marshall: Consumers' Surplus, Tax bounty analysis, External Economies, Quasi-Rent, Role of time element in value.

Reading List

- Roll, Eric (1973). *A History of Economic Thought*. Faber, London.
- Screpanti, E. & Zamagni, S. (2005). *An Outline of the History of Economic Thought (Translated by David Field and Lynn Kirby)*. Oxford University Press.
- Seshadri, G.B. (1997). *Economic Doctrines*. B.R Publications, New Delhi.
- Spiegel, H.W. (1971). *The Growth of Economic Thought*. N.C. Duke University, Durham.

Unit-IV

The Neoclassical School - Monetary Economics: John Gustav Wickshell - Irving Fisher - George Hawtrey.

The Neo Classical School - Departure from Pure Competition: Piero Sraffa - Chamberlin - Joan Robinson.

Reading List

- Brue, S. L. & Grant, R.R. (2013). *The Evolution of Economic Thought*. South-Western Cengage Learning, USA.
- Dasgupta, A.K.L. (1985). *Epochs of Economic Theory*. Oxford University Press, New Delhi.
- Gill, Richard (1972). *Evolution of Modern Economics*. Prentice Hall of India.
- Morgan, M. S. (1990). *A History of Economic Ideas*. Cambridge University Press. U.K.
- Seligman, B.B. (1962). *Main Currents in Modern Economics*. Quadrangle, Chicago.

Mapping Matrix of Course M-ECOE-034

Table 1: CO-PO Matrix for the Course M-ECOE-034

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-034.1	3	2	3	3	-	2	2	2	2	2	2	2
M-ECOE-034.2	3	2	2	2	-	2	2	2	2	2	2	2
M-ECOE-034.3	3	2	3	2	-	2	2	3	2	2	2	2
M-ECOE-034.4	3	3	3	3	-	2	2	2	2	2	2	2
AVERAGE	3.00	2.25	2.75	2.50	-	2	2	2.25	2.00	2.00	2.00	2.00

Table 2: CO-PSO Matrix for the Course M-ECOE-034

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-034.1	2	2	3	3
M-ECOE-034.2	2	2	3	2
M-ECOE-034.3	2	2	2	3
M-ECOE-034.4	3	2	3	3
AVERAGE	2.25	2	2.75	2.75

M.A. Economics 3rd Semester
Paper- M-ECOE-035 (Elective)
ECONOMICS OF AGRICULTURE-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-035.1	Understand and analyze critically the agriculture sector linkages with economic development and become able to estimate the risks and uncertainties involved in agriculture.
M-ECOE-035.2	Comprehend, compare, evaluate and then present the various economic thoughts in context of agriculture namely Ancient, Hebrew, Greek, Roman, Medieval, Physiocratic and Classical.
M-ECOE-035.3	Understand and explain latest trends in Indian agriculture, challenges involved in agricultural productivity, price policy and marketing practices.
M-ECOE-035.4	Able to understand, present and measure unemployment and poverty in rural sector, gender inequity in agriculture, unequal income distribution and develop the ability to design adequate policies in this regard.

Unit – I

Agriculture and Economic Development

Agricultural Economics – Definition, Nature and Scope; Role of Agriculture in Economic Development; Inter-Sectoral Linkages of Agriculture (Backward & Forward Linkages and Feedback Effects); Role of Agriculture in Haryana and Indian Economy; Farming as a business or way of life; Risks and Uncertainties in Agriculture.

Reading List

- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam's Indian Economy*. S.Chand Publishers, New Delhi.
- Gardener, Bruce L., & Rausser, Gordon C. (Eds.). (2002). *Handbook of Agricultural Economics, Vol.2A- Agriculture and Its External Linkages*. Amsterdam, Elsevier Science B.V.
- Moss, C.B. (2010). *Risk, Uncertainty and the Agricultural Firm*. World Scientific Publishing Co. Pte. Ltd. Singapore.
- Ray, P.K. (2013). *Agricultural Insurance: Theory and Practice and Application to Developing Countries*. Pergamon Press, Great Britain.
- Singh, Kuldeep (2010). Agricultural Trajectories and Environment Dilemma: Some Evidence from Haryana. *Agricultural Situation in India*, 67(3).
- Westley, J. R. (2019). *Agriculture and Equitable Growth: The Case of Punjab-Haryana*. Routledge, New York.

Unit – II

Evolution of Agricultural Economic Thoughts

Ancient Economic Thought and Agriculture: Hebrew Economic Thought; Greek Economic Thought – Socrates, Plato, Aristotle; Roman Economic Thought; Medieval Economic Thought and Agriculture – St. Augustine; Physiocrats and Agriculture; Classical Economic Thought and Agriculture.

Reading List

- Drummond H. E. & Goodwin W. J. (2004). *Agricultural Economics*. Pearson Education, New Delhi.
- Eicher, C. & Lawrence, W. (Eds.). (1970). *Agriculture in Economic Development*. New York, McGraw Hill Co.
- Lokanathan, V. (1973). *A History of Economic Thought*. S. Chand Publishing.

Unit – III

Issues in Indian Agriculture

Indian Agriculture: Features, Problems and Trends; Agricultural Productivity in India – Causes of low productivity and Suggestions to increase productivity in India; Agricultural Price Policy: origin, objectives, need, instruments, shortcomings and suggestions for Re-orientation of Agricultural Price Policy in India; Agriculture Marketing in India; Agricultural Development and Five Year Plans.

Reading List

- Bhalla, G.S. (2007). *Indian Agricultural Since Independence*. National Book Trust, India.
- Ezaz Anwar, Md. (2019). *Agriculture and Economic Development in India*. New Century Publications,
- Goswami, B., Bezbaruah, M. P. & Mandal, R. (Eds.). (2017). *Indian Agriculture after the Green Revolution: Changes and Challenges*. Routledge, New York.
- Paroda, R. S. (2018). *Reorienting Indian Agriculture: Challenges and Opportunities*. CABI, Oxfordshire, UK.

Unit – IV

Rural Unemployment and Poverty

Rural Unemployment: Nature, Magnitude, Causes and Suggestions to solve unemployment problem; Problems and Measures to improve the conditions of Agricultural Labourers; Rural Poverty; Inequalities in income distribution; Gender inequity in agriculture; Concept of Poverty Line and Measures to eradicate Poverty in India.

Reading List

- Bathla, S., Joshi, P.K. & Kumar, A. (2020). *Agricultural Growth and Rural Poverty Reduction in India – Targeting Investments and Input Subsidies*. Springer.
- Bhalla, G.S. & Singh, G. (2012). *Economic Liberalisation and Indian Agriculture – A District Level Study*. Sage Publications India Pvt. Ltd., New Delhi.
- Nath, G.B. (1998). *Problems of Agricultural Labour: A Case Study of Orissa*. Classical Publishing Company, University of Michigan.
- Sridhara, S., Nagachaitnya, B., Chakravarthy, A.K., Nagamani, M.K. & Prabhakara Shetty, T.K. (Eds.). (2009). *Women in Agriculture & Rural Development*. New India Publishing Agency.
- Tripathy, S. N. (2000). *Contractual Labour in Agricultural Sector*. Discovery Publishing House.

Mapping Matrix of Course M-ECOE-035

Table 1: CO-PO Matrix for the Course M-ECOE-035

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-035.1	3	2	3	3	3	2	-	2	2	2	2	2
M-ECOE-035.2	3	2	2	2	3	2	-	2	2	2	2	2
M-ECOE-035.3	3	2	3	2	3	2	-	3	2	2	2	2
M-ECOE-035.4	3	3	3	3	3	3	-	2	2	2	2	2
AVERAGE	3.00	2.25	2.75	2.50	3	2.25	-	2.25	2.00	2.00	2.00	2.00

Table 2: CO-PSO Matrix for the Course M-ECOE-035

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-035.1	2	2	3	3
M-ECOE-035.2	2	2	3	2
M-ECOE-035.3	2	3	2	3
M-ECOE-035.4	3	3	3	3
AVERAGE	2.25	2.5	2.75	2.75

M.A. Economics 3rd Semester
Paper- M-ECOE-036 (Elective)
WELFARE ECONOMICS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-036.1	Understand the different ways to measure welfare changes for individuals and know how to aggregate them.
M-ECOE-036.2	Understand how to construct models and use general equilibrium analysis. Comprehend and identify the main economic factors and indicators affecting the level of individual welfare and welfare state.
M-ECOE-036.3	Be able to properly interpret compensated welfare changes and know how they relate to actual welfare changes typically isolated in demand-supply diagrams.
M-ECOE-036.4	Understand the welfare economic foundation of public policies.

Unit-I

Introduction to Welfare Economics

Scope and Purpose of Welfare Economics; Positive or normative science; Assumption of Uniform Income; Utility Function of Individuals; Marginal Productivity Theory of Income Distribution; Elasticity of Factor Substitution; Technological Progress and Income Distribution; Value judgements and welfare economics; Benthamite Approach to Aggregate Welfare.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Feldman, A. M. & Serrano, R. (2006). *Welfare Economics and Social Choice Theory*. Springer.
- Johansson, Per-Olov (1991). *An Introduction to Modern Welfare Economics*. Cambridge University Press.
- Little, I.M.D. (2002). *A critique of Welfare Economics*. Oxford University Press.
- Sen, Amartya (1997). *Choice, Welfare and Measurement*. Harvard University Press.

Unit-II

Marshallian Welfare Economics

Consumer's Surplus - Measurement, Difficulties involved and Criticism.

Hicks's Surpluses

Concept of Consumer's Surplus; Principle of Compensating Variation; Consumer's Surplus and Tax-Bounty Analysis.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Feldman, A. M. & Serrano, R. (2006). *Welfare Economics and Social Choice Theory*. Springer.
- Johansson, Per-Olov (1991). *An Introduction to Modern Welfare Economics*. Cambridge University Press.
- Little, I.M.D. (2002). *A critique of Welfare Economics*. Oxford University Press.
- Sen, Amartya (1997). *Choice, Welfare and Measurement*. Harvard University Press.

Unit-III

Optimum Resource Allocation and Welfare Maximization

Pareto optimality – Optimum exchange conditions, The production optimum, The consumption optimum, Concept of contract curve; Pareto optimality and perfect competition; First and Second Fundamental Theorems of Welfare Economics.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Feldman, A. M. & Serrano, R. (2006). *Welfare Economics and Social Choice Theory*. Springer.
- Johansson, Per-Olov (1991). *An Introduction to Modern Welfare Economics*. Cambridge University Press.
- Little, I.M.D. (2002). *A critique of Welfare Economics*. Oxford University Press.
- Sen, Amartya (1997). *Choice, Welfare and Measurement*. Harvard University Press.

Unit-IV

Fairness/Equity and Welfare Economics

Economic Justice: Utilitarian Approach (Harsanyi); Libertarian View (Nozick); Rawlsian Theory of Justice; Amartya Sen’s Approach to Economic Justice; Bergson’s social welfare function; Compensation criteria – Contributions of Barone, Kaldor and Hicks.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Feldman, A. M. & Serrano, R. (2006). *Welfare Economics and Social Choice Theory*. Springer.
- Johansson, Per-Olov (1991). *An Introduction to Modern Welfare Economics*. Cambridge University Press.
- Little, I.M.D. (2002). *A critique of Welfare Economics*. Oxford University Press.
- Sen, Amartya (1997). *Choice, Welfare and Measurement*. Harvard University Press.

Mapping Matrix of Course M-ECOE-036

Table 1: CO-PO Matrix for the Course M-ECOE-036

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-036.1	3	2	2	2	3	2	2	2	3	2	2	2
M-ECOE-036.2	3	2	2	2	2	2	2	3	3	2	2	2
M-ECOE-036.3	3	2	2	2	2	2	2	3	3	2	2	2
M-ECOE-036.4	3	2	2	2	2	2	2	2	3	2	2	2
AVERAGE	3	2	2	2	2.25	2	2	2.5	3	2	2	2

Table 2: CO-PSO Matrix for the Course M-ECOE-036

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-036.1	2	2	3	2
M-ECOE-036.2	2	2	3	2
M-ECOE-036.3	2	2	3	2
M-ECOE-036.4	2	2	3	2
AVERAGE	2	2	3	2

M.A. Economics 3rd Semester
Paper- M-ECOE-037 (Elective)
INDUSTRIAL ECONOMICS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-037.1	Learn the scope and breadth of industrial economics and able to use the tools of economic analysis and the classical theory of markets in the analysis of organizations.
M-ECOE-037.2	Comprehend, compare and present the theories of industrialization and location along with their technical applications.
M-ECOE-037.3	Understand market structure-conduct-performance and appreciate the concept of sellers' concentration along with its measurement using adequate techniques.
M-ECOE-037.4	Understand and then able to present the concepts of industrial productivity and efficiency along with measurement using analytical tools.

Unit-I

Industrial Organization and Theories of the Firm

Meaning and scope of industrial economics; Industrial organization and ownership structure – public, private, joint and co-operative sectors; Objectives of the firm; Theories of the firm: Neoclassical theory, Managerial Theories, Coasian firm and transaction cost approach, Strategic and knowledge based theories.

Reading List

- Bains, J. S. (1996). *Industrial Organization*. Cheltenham, U. K.
- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Divine, P. J., Lee, N., Jones, R. M. & Tyson, W.J. (2018). *An Introduction to Industrial Economics*. Routledge.
- Hay, D. & Morris, D. J. (1979). *Industrial Economics: Theory and Evidence*. Oxford University Press, New Delhi.

Unit-II

Theories of Industrialization and Industrial Location

Theories of Industrialization – Hoffman, Chenery and Gershenkron; Theories of industrial location – Weber, Sargent and August Losch theories, Hotelling's location model, Salop's location model; Factors affecting location; Balanced regional development of industries.

Reading List

- Bains, J. S. (1996). *Industrial Organization*. Cheltenham, U. K.
- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Hay, D. & Morris, D. J. (1979). *Industrial Economics: Theory and Evidence*. Oxford University Press, New Delhi.
- Smith, D. M. (1971). *Industrial Location: An Economic and Geographic Analysis*. John Wiley, New York.
- Symeonidis, George (1999). *Industrial Economics*. University of London Study Guide (SG).

Unit-III

The Structure-Conduct-Performance Paradigm

The structural conduct performance approach; Relationships between structure, conduct & performance; Neoclassical developments of the SCP approach; Sellers concentration and its measurement: the concentration ratio, the Lorenz curve; Product differentiations – its sources and its implications, Entry conditions; Economies of Scale; Market structure and profitability; Market structure and innovation – Process and measurement.

Reading List

- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Divine, P. J., Lee, N., Jones, R. M. & Tyson, W.J. (2018). *An Introduction to Industrial Economics*. Routledge.
- Ferguson, P.R. & Ferguson, G.J. (1994). *Industrial Economics: Issues and Perspectives*. Palgrave Macmillan, New York.
- Kamien, M. T. & Schwartz, N. L. (1982). *Market Structure and Innovation*. Cambridge University Press, Cambridge.
- Lipczynski, J., Wilson, J.O.S. & Goddard, J.A. (2016). *Industrial Organisation: Competition, Strategy and Policy*. Pearson.

Unit-IV

Industrial Productivity and Efficiency

Industrial Productivity – measurement and determinants; Industrial efficiency– concept and measurement; Efficiency conditions in the theory of production: constrained output maximisation, constrained cost minimisation, profit and revenue maximization; Efficiency and decision-making process.

Reading List

- Bains, J. S. (1996). *Industrial Organization*. Cheltenham, U. K.
- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Kamien, M. T. & Schwartz, N. L. (1982). *Market Structure and Innovation*. Cambridge University Press, Cambridge.
- Lipczynski, J., Wilson, J.O.S. & Goddard, J.A. (2016). *Industrial Organisation: Competition, Strategy and Policy*. Pearson.

Mapping Matrix of Course M-ECOE-037
Table 1: CO-PO Matrix for the Course M-ECOE-037

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-037.1	3	3	3	2	2	2	2	-	3	2	3	3
M-ECOE-037.2	3	3	3	2	2	2	2	-	3	2	3	3
M-ECOE-037.3	3	3	3	2	2	2	2	-	3	2	3	3
M-ECOE-037.4	3	3	3	2	2	2	2	-	3	2	3	3
AVERAGE	3	3	3	2	2	2	2	-	3	2	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-037

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-037.1	3	3	3	2
M-ECOE-037.2	3	3	3	2
M-ECOE-037.3	3	3	3	2
M-ECOE-037.4	3	3	3	2
AVERAGE	3	3	3	2

M.A. Economics 3rd Semester
Paper- M-ECOE-038 (Elective)
FINANCIAL MARKETS AND INSTITUTIONS-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-038.1	Understand the Indian banking system and describe the role of regulatory bodies in regulating how banks manage their capital.
M-ECOE-038.2	Describe the types of equity securities that companies can use to raise equity capital and how these securities can be listed and traded on the Stock Exchange
M-ECOE-038.3	Describe the characteristics of different types of money market securities and be able to price them. Describe different theories of how interest rates are determined and explain the relationship between the term to maturity, risk, and interest rates
M-ECOE-038.4	Gain an understanding of the characteristics of derivatives instruments (futures and options contracts), the different motivations for their use and how they are traded.

Unit-I

Financial System

Introduction to Financial System; Indicators of Financial Development; Concepts Related to Financial Markets and Institutions - Concept of Risk, Concept and types of return and yield, Asset Pricing Models, Valuation of Assets; Theories of Level and Structure of Interest Rates.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). Financial Institutions and Markets: Structure, Growth and Innovations. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Unit-II

Commercial Banking System

Commercial Banking - Role of Banks; Process of Credit Creation; Banks' Financial Statement, International Banking, NPA, Risk Management in Banking; Banking sector reforms over last decade.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). Financial Institutions and Markets: Structure, Growth and Innovations. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Unit-III

Money Market

Introduction, Meaning and main characteristics of Money Market segments- Call Money Market, Treasury bill market, Commercial Papers Market, Certificate of Deposit Market, Gilt- edged Securities Market, Repo Market, Collateralised Borrowing and Lending Obligation (CBLO); Link between the Money Market and the Monetary

Policy in India; Functions and Importance of money market in India; Recent Developments in Indian Money Market.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). Financial Institutions and Markets: Structure, Growth and Innovations. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Unit-IV

Capital Market

Meaning, Objectives, Importance and Functions of Capital Market; New financial instruments in primary capital Market.

Stock Market and Securities - IPO, Stock Exchanges, Stock Market Indices, Market Micro-Structure in Stock Market.

Derivatives Market - Types of Derivatives, Important Concepts used in Derivatives Market, Pricing of Futures, Options and Swaps.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). *Financial Institutions and Markets: Structure, Growth and Innovations*. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Mapping Matrix of Course M-ECO-E-038
Table 1: CO-PO Matrix for the Course M-ECO-E-038

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECO-E-038.1	3	3	2	3	3	3	2	-	2	2	2	2
M-ECO-E-038.2	3	2	3	3	3	3	2	-	2	2	2	2
M-ECO-E-038.3	3	3	2	3	3	3	2	-	2	2	2	2
M-ECO-E-038.4	3	2	3	3	3	3	2	-	2	2	2	2
AVERAGE	3	2.5	2.5	3	3	3	2	-	2	2	2	2

Table 2: CO-PSO Matrix for the Course M-ECO-E-038

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECO-E-038.1	2	2	3	2
M-ECO-E-038.2	3	2	3	2
M-ECO-E-038.3	2	2	3	2
M-ECO-E-038.4	3	2	3	2
AVERAGE	2.5	2	3	2

M.A. Economics 3rd Semester
Paper- M-ECOE-039 (Elective)
ECONOMICS OF GENDER AND DEVELOPMENT -I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-039.1	Understand importance Gender and Women's Studies as an academic field of study and be familiar with its history and theories.
M-ECOE-039.2	Explain demography of female population with special reference to nutrition, health, education and social and community resources.
M-ECOE-039.3	Understand factors affecting decision making by women.
M-ECOE-039.4	Demonstrate skills for valuation of women's productive and unproductive work.

Unit-I

Introduction to Women Studies

Importance and concepts of women studies – women in patriarchal and matriarchal societies and structures, patrilineal and matrilineal systems and relevance to present day society in India; Economic basis and functioning of patriarchy in developed Countries and LDCs, particularly India.

Reading List

- Boserup, E. (1970). *Women's Role in Economic Development*. George Allen and Unwin, London.
- Desai, N. & Raj, M.K. (Eds.). (1979). *Women and Society in India*. Research Center for Women Studies, SNDT University, Bombay.
- Government of India (1974). *Towards Equality – Report of the Committee on the Status of Women in India*, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
- Krishnaraj, M., Sudarshan, R.M. & Shariff, A. (1999). *Gender, Population and Development*. Oxford University Press, New Delhi.
- Seth, M. (2000). *Women and Development: The Indian Experience*. Sage Publications, New Delhi.
- Srinivasan, K. & Shariff, A. (1998). *India: Towards Population and Development Goals*. Oxford University Press, New Delhi.
- Venkateswaran, S. (1995). *Environment, Development and the Gender Gap*. Sage Publications, New Delhi.
- Wazir, R. (2000). *The Gender Gap in Basic Education: NGOs as Change Agents*. Sage Publications, New Delhi.

Unit-II

Demographic Aspects

Demography of female population: Age structure, mortality rates, and sex ratio – Causes of declining sex ratios and fertility rates in LDCs and particularly India – Theories and measurement of fertility and its control; Women and their access to nutrition, health, education and social and community resources, and its impact on female mortality and fertility, economic status, and work participation rate.

Reading List

- Boserup, E. (1970). *Women's Role in Economic Development*. George Allen and Unwin, London.
- Krishnaraj, M., Sudarshan, R.M. & Shariff, A. (1999). *Gender, Population and Development*. Oxford University Press, New Delhi.
- Srinivasan, K. & Shariff, A. (1998). *India: Towards Population and Development Goals*. Oxford University Press, New Delhi.

- Venkateswaran, S. (1995). *Environment, Development and the Gender Gap*. Sage Publications, New Delhi.
- Wazir, R. (2000). *The Gender Gap in Basic Education: NGOs as Change Agents*. Sage Publications, New Delhi.

Unit-III

Women and Decision Making

Factors affecting decision making by women; Property rights; Access to and control over economic resources, assets; Power of decision making at household, class community level; Economic status of women and its effect on work-participation rate, income level, health, and education in developing countries and India.

Reading List

- Boserup, E. (1970). *Women's Role in Economic Development*. George Allen and Unwin, London.
- Desai, N. & Raj, M.K. (Eds.). (1979). *Women and Society in India*. Research Center for Women Studies, SNDT University, Bombay.
- Government of India (1974). *Towards Equality – Report of the Committee on the Status of Women in India*, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
- Wazir, R. (2000). *The Gender Gap in Basic Education: NGOs as Change Agents*. Sage Publications, New Delhi.

Unit-IV

Issues in Women' Work

Concept and analysis of women' work: Valuation of productive and unproductive work, Visible and invisible work, Paid and unpaid-work, Economically productive and socially productive work.

Factors affecting female entry in labour market; Supply and demand for female labour in developed and developing countries, particularly India; Studies of female work participation in agriculture, non-agricultural rural activities, informal sector, cottage and small-scale industries, organized industry and services sector.

Reading List

- Boserup, E. (1970). *Women's Role in Economic Development*. George Allen and Unwin, London.
- Government of India (1974). *Towards Equality – Report of the Committee on the Status of Women in India*, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
- Seth, M. (2000). *Women and Development: The Indian Experience*. Sage Publications, New Delhi.

Mapping Matrix of Course M-ECOE-039

Table 1: CO-PO Matrix for the Course M-ECOE-039

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-039.1	3	3	2	3	3	3	2	2	-	2	3	3
M-ECOE-039.2	3	2	3	3	3	3	2	2	-	2	3	2
M-ECOE-039.3	3	3	2	3	3	3	2	2	-	2	3	3
M-ECOE-039.4	3	2	3	3	3	3	2	2	-	2	3	2
AVERAGE	3	2.5	2.5	3	3	3	2	2	-	2	3	2.5

Table 2: CO-PSO Matrix for the Course M-ECOE-039

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-039.1	2	2	3	2
M-ECOE-039.2	3	2	3	2
M-ECOE-039.3	2	2	3	2
M-ECOE-039.4	3	2	3	2
AVERAGE	2.5	2	3	2

M.A. Economics 3rd Semester
Paper- M-ECOE-040 (Elective)
ECONOMICS AND LAW-I

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-040.1	Understand the basic concepts and theories related to the interrelation of Law and Economics and develop an outlook to observe the changes in the field to interpret and analyze.
M-ECOE-040.2	To be able to comprehend and critically analyze law traditions, court system, theory related to property and IPR system along with their ethical implications.
M-ECOE-040.3	Understand the role of legal framework (e.g. tort law and consumer protection law) in shaping economic behavior of economic agents.
M-ECOE-040.4	To review the economic account of different areas of law, specifically, contract law etc. and its applications.

Unit-I

Introduction to Law and Economics

Economic Approach to Law- History and criticism; Interrelationship between Legal and Economic Process; Economic Efficiency in law and Economics; Market Failure; Coase Theorem and related ideas; Compensation Principle; Social Welfare Function.

Reading List

- Burrows, P. & Veljanovski, C.G. (Eds.). (1981). *The Economic Approach to Law*. Butterworths, London.
- Coase, R.H. (1993). Law and Economics at Chicago. *Journal of Law and Economics*, 36(1), 239-254.
- Coase, R.H. (1960). The Problem of Social Cost. *Journal of Law and Economics*, 3, 1-44.
- Cooter, R. & Ulen, T. (2012). *Law and Economics*. Addison-Wesley (Pearson).
- Miceli, T. J. (2004). *The Economic Approach to Law*. California: Stanford Economics and Finance.
- Posner, R.A. (1998). Values and Consequences: An Introduction to the Economic Analysis of Law (Working Paper no 53). Coase-Sandor Institute for Law and Economics, The University of Chicago Law School.
- Swanson, T.M. & Johnston, S. (1999). *Global Environmental Problems and International Environmental Agreements*, Edward Elgar, UK.

Unit-II

Law, Legal Institutions and Property

The Civil and Common law Traditions; The Federal and State Court Systems; The Nature of Legal Dispute; Legal Rules Evolution Process; An Economic Theory of Property; Economics of Intellectual Property.

Reading List

- Cooter, R. & Ulen, T.(2012). *Law and Economics*. Addison-Wesley (Pearson).
- Jain, M.P. (1990). *Outlines of Indian Legal History*. N.M. Tripathi (P) Ltd., Bombay.
- Miceli, T. J. (2004). *The Economic Approach to Law*. California: Stanford Economics and Finance.
- Spitzer, M. & Hoffman, E. (1980). A Reply to Consumption Theory, Production and Ideology in the Coase Theorem. *Southern California Law Review*, 53(4), 1187-1214.

Unit-III

Economics of Tort Law

Defining of Tort Law; Economic Theory of Tort Liability; Applications of the Economic Theory of Tort Law; Consumer Protection; Consumer Courts.

Reading List

- Aggarwal, V.K. (2000). *Bharat's Consumer Protection (Law and Practice)*. B.L.H. Publishers Distributors Pvt. Ltd., New Delhi.
- Cooter, R. & Ulen, T. (2012). *Law and Economics*. Addison-Wesley (Pearson).
- Kaplow, L. & Shavell, S. (1996). Property Rules versus Liability Rules: An Economic Analysis. *Harvard Law Review*, 109(4), 713-790.
- Lando, H. (1997). An Attempt to Incorporate Fairness into an Economic Model of Tort Law. *International Review of Law and Economics*, 17(4), 575-587.
- Miceli, T. J. (2004). *The Economic Approach to Law*. California: Stanford Economics and Finance.

Unit-IV

Economic Role of Contract

Economic Theory of Contract; Remedies as Incentives; Formation Defenses and Performance Excuses; Applications of the Economic Theory of Contract.

Reading List

- Ayres, I. & Gevner, R. (1989). Filling Gaps in Incomplete Contracts: An Economic Theory of Default Rules. *The Yale Law Journal*, 99, 87-130.
- Cooter, R. & Ulen, T. (2012). *Law and Economics*. Addison-Wesley (Pearson).
- Cornish, W.R. (2001). *Intellectual Property*. Universal Law Publishing, New Delhi.
- Friedman, D. (1989). The Efficient Breach Fallacy. *Journal of Legal Studies*, 18(1), 1-24.
- Miceli, T. J. (2004). *The Economic Approach to Law*. California: Stanford Economics and Finance.

Mapping Matrix of Course M-ECOE-040

Table 1: CO-PO Matrix for the Course M-ECOE-040

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-040.1	3	3	3	3	2	2	3	3	3	2	2	2
M-ECOE-040.2	3	3	3	3	2	2	3	3	3	2	2	2
M-ECOE-040.3	3	3	3	3	2	2	3	3	3	2	2	2
M-ECOE-040.4	3	3	3	3	2	2	3	3	3	2	2	2
AVERAGE	3	3	3	3	2	2	3	3	3	2	2	2

Table 2: CO-PSO Matrix for the Course M-ECOE-040

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-040.1	3	3	3	3
M-ECOE-040.2	3	2	3	3
M-ECOE-040.3	3	2	3	3
M-ECOE-040.4	3	2	3	3
AVERAGE	3	2.25	3	3

M.A. Economics 3rd Semester
Paper- M-ECOE-041 (Elective)
RESEARCH METHODOLOGY

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-041.1	Understand the research process & design, and explain/design the relevant data collection instruments.
M-ECOE-041.2	Learn and understand various sample designs, and apply appropriate design as well as data processing.
M-ECOE-041.3	Understand theoretically, solve and apply the relevant tests to the selected research problem both manually and with the help of ICT based softwares.
M-ECOE-041.4	Develop the ability to draft and present the complete research process including findings, references etc. under ethical considerations.

Unit-I

Introduction to Research Methodology

Meaning, Objectives and Process of Research; Research Design: Pure, Applied, Exploratory, Descriptive, Diagnostic, Evaluation, Action and Experimental Research; Sources of Data: Primary and Secondary Sources; Data Collection Instruments: Observation, Interview, Schedules and Questionnaires.

Reading List

- Bryman, Alan (2012). *Social Research Methods*. Oxford University Press, Oxford.
- Ethridge, Don E. (2004). *Research Methodology in Applied Economics*. Wiley.
- Kothari, C.R. (2013). *Research Methodology: Methods and Techniques*. New Age International Publication, New Delhi.
- Krishnawamy, O.R. & Ranghanathan, M. (2016). *Methodology of Research in Social Sciences*. Himalaya Publishing House, Bangalore.

Unit-II

Sampling and Data Processing

Types of Sample Design - Probability Sampling Techniques: Simple Random, Stratified Random, Cluster and Multi-Stage and other Methods of Sampling; Non-Probability Sampling Techniques: Quota Sampling, Convenient Sampling, Purposive Sampling, Judgment Sampling and other Methods; Determination of Sample Size; Errors in Sampling; Data Processing: Processing and Distribution, Field Work Validation, Tabulation, Editing, Coding, Classification and Tabulation of Data, Presentation, Graphical Representation.

Reading List

- Ethridge, Don E. (2004). *Research Methodology in Applied Economics*. Wiley.
- Krishnawamy, O.R. & Ranghanathan, M. (2016). *Methodology of Research in Social Sciences*. Himalaya Publishing House, Bangalore.
- Tucker, V. (2020). *Research Methods in Social Sciences*. Pearson India.

Unit-III

Analysis of Data

Measures of Central Tendency - Mean, Median and Mode; Measures of Dispersion - Range, Mean Deviation,

Standard Deviation, Variation, Coefficient of Variation; Testing of Hypothesis - Parametric and Non-Parametric Tests; Standard Test of Hypothesis - Z test, t- test, F test and ANOVA, Chi Square test; Index Numbers.

Reading List

- Bryman, Alan (2012). *Social Research Methods*. Oxford University Press, Oxford.
- Ethridge, Don E. (2004). *Research Methodology in Applied Economics*. Wiley.
- Kothari, C.R. (2013). *Research Methodology: Methods and Techniques*. New Age International Publication, New Delhi.
- Tucker, V. (2020). *Research Methods in Social Sciences*. Pearson India.

Unit-IV

Fundamentals of Report Writing

Importance of Report Writing; Types of Reports: Brief Reports, Detailed Reports, Technical Reports and Business Reports; Report Structure: Preliminary Section, Main Report; Research Findings and Suggested Recommendations; Limitations of the Study and End Notes; Report Writing: Report Formulation; Visual Representations: Tables, Graphs, Charts; Presenting Footnotes and Bibliography; Plagiarism and Ethical Issues in Research.

Reading List

- Gastel, B. & Day, Robert A. (2016). *How to Write and Publish a Scientific Paper*. Greenwood Publishers, California.
- Kothari, C.R. (2013). *Research Methodology: Methods and Techniques*. New Age International Publication, New Delhi.
- Krishnawamy, O.R. & Ranghanathan, M. (2016). *Methodology of Research in Social Sciences*. Himalaya Publishing House, Bangalore.
- Tucker, V. (2020). *Research Methods in Social Sciences*. Pearson India.

Mapping Matrix of Course M-ECOIE-041
Table 1: CO-PO Matrix for the Course M-ECOIE-041

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOIE-041.1	3	3	3	3	2	2	3	-	2	-	3	3
M-ECOIE-041.2	3	3	3	3	3	2	3	-	2	-	3	3
M-ECOIE-041.3	3	3	3	3	3	3	3	-	3	-	3	3
M-ECOIE-041.4	3	3	3	3	3	3	3	-	3	-	3	3
AVERAGE	3	3	3	3	2.75	2.5	3	-	2.5	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOIE-041

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOIE-041.1	3	3	3	2
M-ECOIE-041.2	3	3	3	2
M-ECOIE-041.3	3	3	3	2
M-ECOIE-041.4	3	3	3	2
AVERAGE	3	3	3	2

MA ECONOMICS PART-II SEMESTER-IV (W.E.F. 2021-22)

PAPER CODE	NOMENCLATURE	No. of Credit	Teaching Scheme Hrs/Week			Examination Scheme (Marks & Time)			
			L	T	P	External Marks	Internal Assessment	Total	Time
CORE COURSES									
M-ECOC- 011	International Trade and Finance-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -012	Economics of Growth and Development-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOC -013	Indian Economic Policy-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
ELECTIVE COURSES (Choose any two elective papers)									
M-ECOE -042	Economics of Environment and Social Sector-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -043	Econometrics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE- 044	History of Economic Thought-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -045	Economics of Agriculture-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -046	Welfare Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -047	Industrial Economics-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -048	Financial Markets and Institutions-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -049	Economics of Gender and Development-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -050	Economics and Law-II	4	4	½ hrs/G	-	80	20	100	3Hrs.
M-ECOE -051	Dissertation	4	4	½ hrs/G	-	80	20	100	---
Total						500			

Note: 1. Students are required to select any two (02) elective papers. The students will select the same corresponding papers as in Semester III. However, the number of options offered is subject to the availability of faculty.

Compulsory Credits: 12 Optional Credits: 08

2. The students who had opted for M-ECOE-041 (Research Methodology) in 3rd Semester are bound to opt M-ECOE -051 (Dissertation) in their 4th semester.

M.A. Economics 4th Semester
Paper- M-ECOC-011 (Compulsory)
INTERNATIONAL TRADE AND FINANCE-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-011.1	Understand, explain and present various approaches of foreign exchange rate determination especially in a forward market.
M-ECOC-011.2	Comprehend various models of balance of payment and analyze recent trend of it in India.
M-ECOC-011.3	Learn and explain macro adjustment policies in an open economy framework.
M-ECOC-011.4	Understand and analyze the working of International Financial Management and Institutions

Unit-I

Foreign Exchange Market

Evolution of foreign exchange rate determination mechanism, Speculation and arbitrage, role of expectations, currency swaps, future and options, Asset approach to exchange rate, Portfolio balance approach, FOREX management strategy, Management of foreign exchange with special reference to India, Indian Rupee and its fluctuations in International currency market.

Reading List

- Branson, W.H. (1980). *Asset Markets and Relative Prices in Exchange Rate Determination*. International Finance Section, Department of Economics, Princeton University.
- Frankel, J.A. (1993). *Monetary & Portfolio Balance Models of Exchange Rate Determination*. MIT Press, Cambridge.
- Heller, H.R. (1974). *International Monetary Economics*. Prentice- Hall, Englewood Cliffs, N.J.
- Pilbearn, Keith (2006). *International Finance*. Palgrave Macmillan.

Unit-II

Balance of Payment

Concepts, structure and disequilibrium in Balance of payments; Monetary model of BOP under fixed and flexible exchange rates, Devaluation and BOP crisis- Effects of Devaluation; elasticity and Absorption Approach- Marshall- Lerner Condition, J-Curve; Foreign trade multiplier; Recent trends in BOP in India.

Reading List

- Alexander, S.S. (1959). Effects of Devaluation on Trade Balance. *American Economic Review*, 49, 21-42.
- Kreinin, M.E. & Officer, L.H. (1981). *The Monetary Approach to the Balance of Payment: A Survey* (Princeton Studies in International Finance No. 43). Princeton University.
- McCallum, Bennett T. (1996). *International Monetary Economics*. Oxford University Press, New York.
- Stern, R.M. (2017). *The Balance of Payments: Theory and Economic Policy*. Routledge.
- Thirlwal, A.P (1999). *Balance of Payments Theory*. Oxford University Press, New York.

Unit-III

Open Economy Adjustment Policies

Internal and external balance; Swan Diagram, Assignment Problem; Expenditure Switching and changing policies; Mundell-Fleming Model-Combining monetary and fiscal policies; Implications of Impossible Trinity in the Indian Context.

Reading List

- Caves, R.E. & Johnson, H.G. (Eds.). (1968). *Readings in International Trade*. Homewood, Allen & Unwin, London.
- Rivera-Batiz, Francisco L. & Rivera-Batiz, Luis A. (1994). *International Finance and Open Economy Macroeconomics*. Macmillan.
- Salvatore, D. (2019). *International Economics*. John Wiley and Sons.

Unit-IV**International Financial Management and Institutions**

International Capital Movements: FDI and Portfolio Investment; Euro currency market and International Bond Market; Funding and Risk Management; Currency Crisis: East Asian Financial Crisis, Sub-Prime lending Crisis, Greece Crisis, Euro Crisis and Brexit. Evolutionary and Operational developments in International Institutions: IMF, IDA, ADB.

Reading List

- Kindleberger, C.P. (1996). *A History of Financial Crisis: Manias, Panics and Crashes*. John Wiley and Sons, New York.
- Salvatore, D. (2019). *International Economics*. John Wiley and Sons, New York.
- Whalley, John (1985). *Trade Liberalization Among Major Trading Areas*. Cambridge University Press.

Mapping Matrix of Course M-ECOC-011**Table 1: CO-PO Matrix for the Course M-ECOC-011**

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-011.1	3	3	3	3	3	2	3	-	-	-	3	3
M-ECOC-011.2	3	3	3	3	3	2	3	-	-	-	3	3
M-ECOC-011.3	3	3	3	3	3	3	3	-	-	-	3	3
M-ECOC-011.4	3	3	3	3	3	3	3	-	-	-	3	3
AVERAGE	3	3	3	3	3	2.5	3	-	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOC-011

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-011.1	3	3	3	2
M-ECOC-011.2	3	3	3	2
M-ECOC-011.3	3	3	3	2
M-ECOC-011.4	3	3	3	2
AVERAGE	3	3	3	2

M.A. Economics 4th Semester
Paper- M-ECOC-012 (Compulsory)
ECONOMICS OF GROWTH AND DEVELOPMENT-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-012.1	To understand, analyze and interpret the approaches to development with a view to apply them practically.
M-ECOC-012.2	To understand, analyse and interpret various aspects of the sectoral development including agriculture, industry and services with a view to solve their problems to remove the hurdles in their growth & development.
M-ECOC-012.3	To develop an insight in the issues of international trade, theory, policy, promotion and its relationship with growth & development.
M-ECOC-012.4	To acquaint the students with emerging issues of development including role of financial institutions, new institutional economics and changing paradigm of development.

Unit – I

Approaches to Development

Balanced and Unbalanced Growth; Critical Minimum Efforts Theory; Low Income Equilibrium Trap; Dual Economy; Models of Lewis, Fei-Ranis, Jorgensen, Basic idea of Dixit and Marglin, Kelly et.al.

Reading List

- Adelman, I. (1961). *Theories of Economic Growth and Development*. Stanford University Press, Stanford.
- Ghatak, S. (1986). *An Introduction to Development Economics*. Allen and Unwin, London.
- Higgins, B. (1959). *Economic Development*. W.W. Norton, New York.
- Hirschman, A.O. (1958). *The Strategy of Economic Development*. Yale University Press, New York.
- Kindleberger, C.P. (1977). *Economic Development*. McGraw Hill, New York.
- Lewis, W.A. (1955). *The Theory of Economic Growth*. George Allen and Unwin, London.
- Thirlwal, A.P. (1999). *Growth and Development*. Macmillan, U.K.

Unit – II

Sectoral Aspects of Development

Role of Agriculture in Economic Development; Heterogeneity in Agriculture; Agricultural Transformation: Designing Strategy for Agriculture Transformation.

Rationale and Pattern of Industrialization in developing Countries; Choice of Techniques, Appropriate technology and employment; Terms of Trade between Agriculture and Industry.

Services Sector in Developing Economies: Role, growth and sustainability, Infrastructure and its importance.

Reading List

- Bhagwati, J. & Desai, P. (1970). *India: Planning for Industrialization*. Oxford University Press, London.
- Brown, M. (1966). *On the Theory and Measurement of Technical Change*. Cambridge University Press, Cambridge, Mass.
- Grossman, G. and E. Helpman (1991). *Innovation and Growth in the Global Economy*. MIT Press, Cambridge, Mass.
- Schultz, Paul T. & Strauss, J. (Eds.). (2008). *Handbook of Development Economics, Vol. 4*. Elsevier, Amsterdam.
- Schultz, T.W. (1968). *Economic Growth and Agriculture*. McGraw Hill.

- Sen, A.K. (Ed.). (1990). *Growth Economics*. Penguin, Harmondsworth.

Unit – III

International Trade Theory and Development Strategy

Key Issues in International Trade; Critique of Traditional Trade Theory; Trade Policy Debate: Export Promotion, Import Substitution and Economic Integration; Globalization and Development: View of Stiglitz.

Reading List

- Aydin, H. I., Ziolo, M. & Balacescu, A. (Eds.). (2017). *Economic Development: Global & Regional Studies*. IJOPEC Publication, London.
- Todaro, M.P. & Smith, S.C. (2003). *Economic Development*. Pearson Education, Delhi.

Unit – IV

Emerging Issues in Development

Role of financial Institutions in economic development: Theory (Acemoglu and Zilibotti Model) and Evidence. New Institutional Economics: Role of Market, State and Civil Society; Post 2015 Development Agenda: Impasse in Development Studies and the Alternatives to the Impasse.

Reading List

- Meier, G.M. & Rauch, J.E. (2005). *Leading Issues in Economic Development*. Oxford University Press, New Delhi.
- Menard, C. & Shirley, M.M. (2008). *Handbook of New Institutional Economics*. Springer Science & Business Media.
- Todaro, M.P. & Smith, S.C. (2003). *Economic Development*. Pearson Education, Delhi.

Mapping Matrix of Course M-ECOC-012

Table 1: CO-PO Matrix for the Course M-ECOC-012

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-012.1	3	3	3	3	3	2	2	3	2	2	2	2
M-ECOC-012.2	2	2	3	2	3	3	2	3	2	2	2	3
M-ECOC-012.3	3	3	3	2	3	3	2	3	2	2	2	3
M-ECOC-012.4	3	3	2	3	3	2	2	3	2	2	2	3
AVERAGE	2.75	2.75	2.75	2.50	3.00	2.50	2	3.00	2	2.00	2.00	2.75

Table 2: CO-PSO Matrix for the Course M-ECOC-012

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-012.1	3	3	2	2
M-ECOC-012.2	3	3	2	2
M-ECOC-012.3	3	3	3	3
M-ECOC-012.4	3	2	2	2
AVERAGE	3.00	3.00	2.33	2.33

M.A. Economics 4th Semester
Paper- M-ECOC-013 (Compulsory)
INDIAN ECONOMIC POLICY-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOC-013.1	Understand, explain and analyze various issues and policies regarding sustainable agriculture in India.
M-ECOC-013.2	Comprehend and critically analyze the policies related to industries and labour in India.
M-ECOC-013.3	Understand the working of Indian financial system and analyze various financial sector reforms undertaken in India.
M-ECOC-013.4	Understand and critically evaluate external sector reforms and policies undertaken in India.

Unit-I

Indian Agriculture

Agriculture: Productivity trends and crop pattern; Food security in India; Irrigation and agricultural inputs; Size of farms and productive efficiency; Agricultural Labour Problems; Agricultural Finance and Rural Indebtedness; Agricultural marketing and prices; Issues and policies regarding sustainable agriculture in India; Agriculture Policy Vision 2020.

Reading List

- Kapila, Uma (2016). *Indian Economy: performance and policies*. Academic foundation, New Delhi.
- Ministry of Finance (2020). *Economic Survey*. Government of India.
- Mishra, S. K. & Puri, V.K. (2020). *Indian Economy*. Himalaya Publishing House, New Delhi.
- Shergill, H.S. (2006). *Diversification of cropping pattern: A Re-Examination*. Institute for Development and Communication, Chandigarh.

Unit – II

Industrial Sector in India

New Industrial policy; Industrial pattern and the planning era; Public sector enterprises- Role and performance; Small-scale industries under globalization; India's labour Market: laws and reforms; Industrial Finance and Development Banks; Competition Law.

Reading List

- Biswas, P.K. & Das, P. (Eds.). (2019). *Indian Economy: Reforms and Development*. Springer.
- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam's Indian Economy*. S. Chand Publishing House.
- Kapila, Uma (2014-2015). *Indian Economy since independence*. Academic Foundation, New Delhi.
- Meier, Gerald M. (1987). *Pioneers in Development*. Oxford University Press, New Delhi.
- Ministry of Finance (2020). *Economic Survey*. Government of India.
- Mishra, S. K. & Puri, V.K. (2020). *Indian Economy*. Himalaya Publishing House, New Delhi.

Unit – III

Indian Financial System

Structure of Indian Financial System; Commercial banking in India; Indian Money and capital markets; Issues in Indian public finance; Monetary policy; Non-Banking Financial Sector; Financial Instruments and Financial

Services; Cooperative Banks; Financial Sector Reforms; Demonetization.

Reading List

- Banerjee, A. & Singh, S.K. (2001). *Banking and Financial Sector Reforms in India*. Deep & Deep Publications, New Delhi.
- Desai, Vasant (2005). *Indian Financial System and Financial Market Operations*. Himalaya Publishing House, New Delhi.
- Dhar, P.K. (2020). *Indian Economy: Its Growing Dimensions*. Kalyani Publishers, New Delhi.

Unit – IV

Issues in External Sector

India’s External Sector Reforms; Foreign Direct and Portfolio investments in India; India and the WTO; Exchange Rate Policy of India; Trends in India’s Foreign Trade; Balance of Payments - Problems and Policies; Liberalization, Privatization, Globalization and Indian’s trade & investment.

Reading List

- Bhagwati, Jagdish (2004). *In Defense of Globalization*. Oxford University Press, New Delhi.
- Bhandari, Surendra (1998). *WTO and Developing Countries*. Deep & Deep Publications, New Delhi.
- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam’s Indian Economy*. S. Chand Publishing House.
- Hanumantha Rao, C.H., Bhattacharya, B.B. and Siddharthan, N. (Eds.). (2005). *Indian Economy and Society in Era of Globalization and Liberalization*. Academic Foundation, New Delhi.
- Mathur, Vibha (2005). *WTO and India (Development Agenda for the 21st century)*. New Century Publications, New Delhi.
- Rameshan P. (2008). *WTO, India and Emerging area of Trade: Challenges and Strategies*. Excel Books, New Delhi.
- Stiglitz, Joseph (2002). *Globalization and its Discontents*. Penguin Books, New Delhi.

Mapping Matrix of Course M-ECOC-013

Table 1: CO-PO Matrix for the Course M-ECOC-013

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOC-013.1	3	2	3	2	2	2	3	2	-	-	2	2
M-ECOC-013.2	3	3	3	2	2	2	3	2	-	-	2	2
M-ECOC-013.3	3	2	3	3	2	3	3	2	-	-	2	2
M-ECOC-013.4	3	3	3	3	2	3	3	2	-	-	2	2
AVERAGE	3	2.5	3	2.5	2	2.5	3	2	-	-	2	2

Table 2: CO-PSO Matrix for the Course M-ECOC-013

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOC-013.1	2	2	2	2
M-ECOC-013.2	2	2	2	2
M-ECOC-013.3	2	2	2	2
M-ECOC-013.4	2	2	2	2
Average	2	2	2	2

M.A. Economics 4 th Semester Paper- M-ECOE-042 (Elective) ECONOMICS OF ENVIRONMENT AND SOCIAL SECTOR-II	Total Credit: 4 Time: 3 Hrs. Marks: 100 External : 80 Internal : 20
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Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-042.1	After going through this course, the students shall be able to understand various dimensions of sustainable development and their relationships with each other.
M-ECOE-042.2	Learn the development of environmental sustainability approaches and indicators particularly green accounting.
M-ECOE-042.3	To develop a perspective to manage environmental resources in India and to develop understanding about global environmental issues especially climate change.
M-ECOE-042.4	To measure the contribution of human resource development (education and health services) to economy and to address the problems of sufficiency, accessibility, equity, quality, and financing in social sector (education and health services).

Unit-I

Economics of Sustainable Development

Concept, dimensions and indicators of sustainable development; Sustainability rules and approaches; Common-Perrings model; The Solow-Hartwick approach to sustainability; System of Integrated environmental and economic accounting (SEEA).

Reading List

- Hanley, N., Shogern, J.F. & White, B. (1997). *Environmental Economics in Theory and Practice*. Macmillan.
- Sankar, U. (Ed.). (2001). *Environmental Economics*. Oxford University Press, New Delhi.

Unit – II

Environmental Management–I

Management of common property resources; CPRs, LDCs and sustainable development; Subsidies, controls and use of natural capital in India. Political Economy of ecology and equity. Gender perspective in environmental management.

Reading List

- Bhattacharya, Rabindra Nath (2002). *Environmental Economics: An Indian Perspective*. Oxford India.
- Chary, S.N. & Vyasulu, V. (2000). *Environmental Management - an Indian Perspective*. Macmillan, New Delhi.
- Cropper, Maureen (1999). *Valuing Environmental Benefits*. Edward Elgar.
- Hanley, N., Shogern, J.F. & White, B. (1997). *Environmental Economics in Theory and Practice*. Macmillan.
- Sankar, U. (Ed.). (2001). *Environmental Economics*. Oxford University Press, New Delhi.

Unit – III

Environmental Management–II

Environment and energy; Water resource planning; Water and air pollution - existing pollution control mechanisms; 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; Wetlands; Global environmental issues- problems in managing climate change; Trade and environment in WTO regime.

Reading List

- Bhattacharya, Rabindra Nath (2002). *Environmental Economics: An Indian Perspective*. Oxford India.
- Chary, S.N. & Vyasulu, V. (2000). *Environmental Management - an Indian Perspective*. Macmillan, New Delhi.
- Environmental Policy Briefs by IGIDR under Agenda 21.
- Sankar, U. (Ed.). (2001). *Environmental Economics*. Oxford University Press, New Delhi.

Unit – IV

Economics of Education and Health

Education as an instrument for economic growth; Important issues in basic and higher education; Education and labour market — Effects of education, ability and family background on earnings, poverty and income distribution, education and employment; production function models, growth accounting equations of Schultz and Denison, Manpower requirements approach; Economic dimensions of health care and determinants of health; Role of Government and market in health care; Inequalities in health and education – the class and gender perspective; Financing of education and health in India.

Reading List

- Alexander, K. (2008). *Education and Economic Growth: Investment and Distribution of Financial Resources*. Linton Atlantic Books Limited.
- Folland, S., Goodman, Allen C. & Stano, M. (2016). *The Economics of Health and Health Care*. Routledge, New York.
- Meier, G.M. (2000). *Leading Issues in Economic Development*. Oxford University Press.
- Morris, S., Devlin, N. & Parkin, D. (2007). *Economic Analysis in Health Care*. John Wiley & Sons Ltd., England.
- O'Donoghue, M. (2017). *Economic Dimensions in Education*. Routledge, New York.
- Phelps, C. E. (2016). *Health Economics*. Routledge, New York.
- Psacharopoulos, G. (1973). *Returns to Education: An International Comparison*. Elsevier, Amsterdam.
- Schultz, T.W. (1971). *Investment in Human Capital*. Free Press, New York.
- World Bank (1993). *The World Development Report: Investing in Health*. Oxford University Press, New York.

Mapping Matrix of Course M-ECOE-042

Table 1: CO-PO Matrix for the Course M-ECOE-042

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-042.1	3	3	3	3	3	2	2	2	3	-	3	3
M-ECOE-042.2	3	3	3	3	3	2	3	2	3	-	3	3
M-ECOE-042.3	3	3	3	3	3	2	2	3	2	-	3	3
M-ECOE-042.4	3	3	3	3	3	2	3	3	3	-	3	3
AVERAGE	3.00	3.00	3.00	3	3	2	2.50	2.50	2.75	-	3.00	3.00

Table 2: CO-PSO Matrix for the Course M-ECOE-042

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-042.1	3	2	3	2
M-ECOE-042.2	3	2	3	2
M-ECOE-042.3	3	3	3	2
M-ECOE-042.4	3	3	3	3
AVERAGE	3.00	2.50	3.00	2.25

M.A. Economics 4th Semester
Paper- M-ECOE-043 (Elective)
ECONOMETRICS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-043.1	Understand and explain the nature of dynamic econometric model.
M-ECOE-043.2	Comprehend and apply qualitative response regression models.
M-ECOE-043.3	Learn and explain various concepts in Time Series econometrics and economic forecasting.
M-ECOE-043.4	Construct, test, and analyze econometric models, using variables and relationships commonly found in economic theory.

Unit-I

Distributed Lag Models and Causality Tests

Auto Regressive and Distributed lag Models- Koyak Model, Partial Adjust Model, Adaptive Expectations; Almon Approach to distributed-lag model; Causality tests; Granger and Sim's Test.

Reading List

- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Koutsoyiannis, A. (1977). *Theory of Econometrics*. The Macmillan Press Ltd. London.
- Pindyck R.S. & Rubinfeld, D.L. (1976). *Econometric Models and Economic Forecasts*. McGraw Hill Kogakusha Tokyo.

Unit – II

Dummy Variable Technique

Testing Structural Stability of Regression Models, Comparing two regressions, interaction effects, seasonal analysis, piecewise linear Regression; Regression with dummy dependent variables; The LPM, Logit and Probit Models.

Reading List

- Amemiya, T. (1985). *Advanced Econometrics*. Harvard University Press, Cambridge, Mass.
- Baltagi, B.H. (1988). *Econometrics*. Springer, New York.
- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Kmenta J. (1998). *Elements of Econometrics*. University of Michigan Press, New York.
- Koutsoyiannis, A. (1977). *Theory of Econometrics*. The Macmillan Press Ltd. London.
- Shyamala, S., Kaur, Navdeep & Pragasam, T. Arul (2009). *A Text book on Econometrics Theory and Applications*. Vishal Publishing Company Jalandhar.
- Wooldridge, J. M. (2009). *Introductory Econometrics: A Modern Approach*. South-Western Cengage Learning, USA.

Unit – III

Simultaneous Equation Methods

Methods of Estimating Simultaneous Equation System: Indirect Least Squares (ILS), Instrumental Variables (IV), 2SLS and 3SLS Methods; Basic idea and outline of Limited Information Maximum Likelihood (LIML), FIML & SURE Methods; Application to theory of firm – Estimation of Cobb Douglas and CES Production Functions.

Reading List

- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Kmenta J. (1998). *Elements of Econometrics*. University of Michigan Press, New York.
- Koutsoyiannis, A. (1977). *Theory of Econometrics*. The Macmillan Press Ltd. London.

Unit – IV

Time Series and Panel Data Methods

Time Series: Stationarity, Unit Roots, Co-Integration, Dicky Fuller Test, Random Walk Model, Forecasting with ARIMA and VAR Models-Box Jenkins Methodology, Vector Auto Regression (VAR).

Introduction to Panel Data Methods: Problems with panel data, Pooled OLS, Random effects and fixed effects models.

Reading List

- Amemiya, T. (1985). *Advanced Econometrics*. Harvard University Press, Cambridge, Mass.
- Baltagi, B.H. (2020). *Econometric Analysis of Panel Data*. Springer, New York.
- Gujarati, D.N. (1995). *Basic Econometrics*. McGraw Hill, New Delhi.
- Harvey, Andrew C. (1999). *The Econometric Analysis of Time Series*. The MIT Press, Cambridge, Massachusetts.
- Kmenta J. (1998). *Elements of Econometrics*. University of Michigan Press, New York.
- Shyamala, S., Kaur, Navdeep & Pragasam, T. Arul (2009). *A Text book on Econometrics Theory and Applications*. Vishal Publishing Company Jalandhar.
- Wooldridge, J. M. (2002). *Econometric Analysis of Cross Section and Panel Data*. The MIT Press, Cambridge, Massachusetts.

Mapping Matrix of Course M-ECOE-043
Table 1: CO-PO Matrix for the Course M-ECOE-043

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-043.1	3	2	3	3	3	2	3	2	-	-	3	3
M-ECOE-043.2	3	3	3	3	3	2	3	2	-	-	3	3
M-ECOE-043.3	3	2	3	3	3	3	3	2	-	-	3	3
M-ECOE-043.4	3	3	3	3	3	3	3	2	-	-	3	3
AVERAGE	3	2.5	3	3	3	2.5	3	2	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-043

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-043.1	3	3	2	2
M-ECOE-043.2	3	3	2	2
M-ECOE-043.3	3	3	2	2
M-ECOE-043.4	3	3	2	2
AVERAGE	3.00	3.00	2	2

M.A. Economics 4th Semester
Paper- M-ECOE-044 (Elective)
HISTORY OF ECONOMIC THOUGHT-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-044.1	To understand and analyze the entry of mathematical concepts into economics literature with contribution of Walras, Leontief, Neumann, Morgenstern and Hicks.
M-ECOE-044.2	To critically analyze the Keynesianism with its key concepts to understand the working of a democratic capitalist economy.
M-ECOE-044.3	To develop insight into Post-Keynesian developments and debate with Monetarists.
M-ECOE-044.4	To analyze the contribution of selected growth & development economists.

Unit-I

Evolution of Mathematical Economics

Types of Mathematical Economics - Leon Walras - Wassily Leontief - John Von Neumann and Oscar Morgenstern - John R. Hicks - Linear Programming.

Reading List

- Brue, Stanley L. & Grant, Randy R. (2013). *The Evolution of Economic Thought*. South-Western Cengage Learning, USA.
- Dasgupta, A.K.L. (1985). *Epochs of Economic Theory*. Oxford University Press, New Delhi.
- Ghosh, B.N. (2010). *Concise History of Economic Thought*. Himalaya Publishing House.
- Gill, Richard (1972). *Evolution of Modern Economics*. Prentice Hall of India.
- Morgan M. S. (1990). *A History of Economic Ideas*. Cambridge University Press, U.K.

Unit-II

Keynesianism

Principle of Effective demand, consumption function, multiplier, investment function, liquidity preference theory of interest, role of fiscal policy, uncertainty and role of expectations.

Reading List

- Brue, S. L. & Grant, R.R.(2013). *The Evolution of Economic Thought*. South-Western Cengage Learning, USA.
- Sharma, Soumitra (1998). *John Maynard Keynes: Keynesianism into the Twenty-First Century*. Edward Elgar.
- Turgeon, L. (1997). *Bastard Keynesianism: The Evolution of Economic Thinking and Policy-Making Since World War – II*. Praeger Publishers, USA.

Unit-III

Post Keynesian Developments

Hayek - Supply side economics: Arthur Laffer, Evans Monetarism: Milton Friedman, Don Patinkin, Robert Lucas, Sargent and Wallace.

Reading List

- Canto, V.A., Joines, D. H. & Laffer, A. B. (1983). *Foundations of Supply-Side Economics: Theory and Evidence*.

Academic Press, London.

- Desai, M. (2013). *Testing Monetarism*. Bloomsbury Publishing, London.
- King, J.E. (2002). *A History of Post Keynesian Economics Since 1936*. Edward Elgar.
- Lavoie, M. (2014). *Post-Keynesian Economics: New Foundations*. Edward Elgar.

Unit-IV

Theories of Economic Growth and Development

Sir Roy F. Harrod and Evsey Domar - Robert M. Solow - Joseph Alois Schumpeter – Ragnar Nurkse - W. Arthur Lewis - Theodore W. Schultz.

Reading List

- Brinner, Y.S. (2013). *Theories of Economic Development and Growth*. Routledge.
- Gill, Richard (1972). *Evolution of Modern Economics*. Prentice Hall of India.
- Screpanti, E. & Zamagni, S. (2005). *An Outline of the History of Economic Thought (Translated by David Field and Lynn Kirby)*. Oxford University Press.

Mapping Matrix of Course M-ECOE-044
Table 1: CO-PO Matrix for the Course M-ECOE-044

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-044.1	3	3	3	3	2	2	-	2	2	2	2	2
M-ECOE-044.2	3	3	3	2	3	3	-	3	2	2	2	3
M-ECOE-044.3	3	3	3	3	2	2	-	3	2	2	2	3
M-ECOE-044.4	3	3	3	3	2	2	-	2	2	2	2	2
AVERAGE	3.00	3.00	3.00	2.75	2.25	2.25	-	2.50	2	2	2.00	2.50

Table 2: CO-PSO Matrix for the Course M-ECOE-044

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-044.1	3	3	3	3
M-ECOE-044.2	3	2	3	3
M-ECOE-044.3	2	2	2	2
M-ECOE-044.4	3	2	2	2
AVERAGE	2.75	2.25	2.50	2.50

M.A. Economics 4th Semester
Paper- M-ECOE-045 (Elective)
ECONOMICS OF AGRICULTURE-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-045.1	Understand, analyze and present the concepts of agricultural production functions and factor - product relationships using the tools of micro economics.
M-ECOE-045.2	Understand, critically analyze and present the nature, importance and sources of agricultural credit along with the role of financial institutions dealing with agricultural credit in India.
M-ECOE-045.3	Comprehend, compare, critically analyze and able to present the various theories and models of agricultural development.
M-ECOE-045.4	Attain in-depth understanding of the burning issues in Indian agriculture including liberalization of agricultural trade; implications of WTO and sustainable development; and food security in context of international trade.

Unit – I

Agricultural Production and Its Diversification

Agricultural Production- Stock and Flow Resources, Production Relationships, Resource use and efficiency; Production Functions analyses in agriculture; Factor Relationships – Iso-quant and Iso-cost Line, Optimum Combination; Product Relationships – Joint Products, Competitive Products, Supplementary Products and Antagonistic Products; Diversification of Agricultural Production – Horticulture and Floriculture, Mushroom Cultivation and Processing of Agricultural Products.

Reading List

- Ahuja, S. & Jaggi, P. (2017). Mushroom: Scope and future in India. *Kurukshetra – A Journal on Rural Development*, 65(6), 40-44.
- Gautam, H.R. & Kaushal, R. (2017). Horticulture: The growth engine for agriculture sector. *Kurukshetra – A Journal on Rural Development*, 65(6), 5-9.
- Rawat, S. (2017). Floriculture: Potential source of farmer's income. *Kurukshetra – A Journal on Rural Development*, 65(6), 45-47.
- Sharma, A.K., Wahab, S. & Srivastava, R. (2010). *Agriculture Diversification: Problems and Perspectives*. I.K. International Publishing House Pvt. Ltd., New Delhi.
- Thakur, A.K. & Padmadeo, K.B. (2008). *Growth and Diversification of Agriculture*. Deep & Deep Publications Pvt. Ltd., New Delhi.

Unit – II

Rural Finance

Role of capital and rural credit; Organized and unorganized capital market; Rural savings and capital formation; Characteristics and Sources of rural credit – Institutional and non-institutional; Reorganization of rural credit – cooperatives, commercial banks, regional rural banks; Role of the NABARD.

Reading List

- EPW Research Foundation (2014). *Agricultural Credit in India: Trends, Regional Spreads and Database Issues*. Published by NABARD, 2014.
- Nagaraju, B. (2018). *Recent Trends and Patterns of Agricultural Credit in India*. KY Publications, Guntur, Andhra Pradesh.

- Shandilya, T.K. & Prasad, U. (2003). *Agricultural Credit and NABARD*. Deep & Deep Publications (P) Ltd., New Delhi.
- Singh, B. (2000). *Agricultural Credit: Sources, Problems and Emerging Issues*. Deep & Deep Publications Pvt. Ltd., New Delhi.
- Panda, R.K. (Eds.). (2005). *Emerging Issues on Rural Credit*. APH Publishing Corporation.

Unit III

Theories of Agricultural Development

Schultz's Transformation of Traditional Agriculture; Mellor's Model of Agricultural Development; Boserup Model of Agriculture Development; Ranis – Fie Model of Agriculture Development; Hayami - Ruttan Induced Innovation Hypothesis.

Reading List

- Forster, G.W. & Leager, M.C. (1951). *Elements of Agricultural Economics*. Prentice Hall.
- Cohen, R.L. (2008). *Economics of Agriculture*. Nishet, London.
- Cramer, Gail L., Paudel, Krishna P. & Schmitz, A. (Eds.). (2018). *The Routledge Handbook of Agricultural Economics*. Routledge, New York.

Unit IV

Agriculture and External Sector

Issues in liberalization of domestic and international trade in agriculture; Impact of the World Trade Organization on Indian Agriculture; Agriculture and Environment– Sustainable Development; Food Security and International Trade – Concept, Threat, Indicators and Mechanism to Food Security.

Reading List

- Gulati, A. & Kelly, T. (2001). *Trade Liberalisation and Indian Agriculture*. Oxford University Press.
- Prasad, C.S. (2012). *Agriculture and Sustainable Development in India*. New Century Publications.
- Rudra, A. (1982). *Indian Agricultural Economics: Myths and Reality*. Allied Publishers, New Delhi.
- Singh, K. (2006). Indian Agriculture Trade in Pre and Post WTO Regime: A Comparative Study. *K.U.R.J. (Arts & Humanities)*, 40.

Mapping Matrix of Course M-ECOE-045
Table 1: CO-PO Matrix for the Course M-ECOE-045

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-045.1	3	3	3	2	2	2	3	-	-	-	3	3
M-ECOE-045.2	3	3	3	2	2	2	3	-	-	-	3	3
M-ECOE-045.3	3	3	3	2	3	2	2	-	-	-	3	3
M-ECOE-045.4	3	3	3	2	2	2	3	-	-	-	3	3
AVERAGE	3	3	3	2	2.25	2	2.75	-	-	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-045

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-045.1	3	2	2	3
M-ECOE-045.2	3	2	2	3
M-ECOE-045.3	2	2	2	3
M-ECOE-045.4	3	2	2	3
AVERAGE	2.75	2	2	3

M.A. Economics 4th Semester
Paper- M-ECOE-046 (Elective)
WELFARE ECONOMICS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-046.1	Be exposed to the applied welfare and public economics literatures and be able to relate the two literatures using conventional welfare economics tools.
M-ECOE-046.2	Demonstrate the knowledge and understanding about the significance of intervention of government and other institution in order to regulate externalities, public goods and to design the tax.
M-ECOE-046.3	Interpret the fundamental welfare theorems. To enable students to assess policy issues with reference to criteria that is drawn from welfare economics.
M-ECOE-046.4	Understanding the motivations of public intervention in the economy and how the collectivity can take into account objectives of equity and efficiency to make public choices and supply goods and services.

Unit-I

Social Welfare

The Scitovsky double criterion; Samuelson's utility possibility curve; Choice Functions and Revealed Preference; Social Choice; Social Welfare Function; Arrow's Impossibility Theorem.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Little, I.M.D. (2002). *A critique of Welfare Economics*. Oxford University Press.
- Sen, Amartya (1997). *Choice, Welfare and Measurement*. Harvard University Press.

Unit-II

Efficiency and State Intervention

Pigovian tax and subsidy; Divergence between private and social costs; Externalities of production and consumption; Problem of public goods; The Role of The State; Second-best optima.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Feldman, A. M. & Serrano, R. (2006). *Welfare Economics and Social Choice Theory*. Springer.
- Johansson, Per-Olov (1991). *An Introduction to Modern Welfare Economics*. Cambridge University Press.

Unit-III

Approaches to Welfare Analysis

Marginal cost pricing; Cost-benefit analysis; Welfare Analysis of Risky Projects; The Value of Information and Irreversible Consequences; Welfare Theory and International Trade.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Feldman, A. M. & Serrano, R. (2006). *Welfare Economics and Social Choice Theory*. Springer.
- Johansson, Per-Olov (1991). *An Introduction to Modern Welfare Economics*. Cambridge University Press.

- Little, I.M.D. (2002). *A critique of Welfare Economics*. Oxford University Press.
- Sen, Amartya (1997). *Choice, Welfare and Measurement*. Harvard University Press.

Unit-IV

Public Choice

Collective decision making and voting rules; Voting and median voter model; Rent seeking, Lobbying and corruption; Fiscal policies and taxation; Local public goods; Market failure vs. Government failure.

Reading List

- Boadway, R.W. & Neil, B. (1991). *Welfare Economics*. Wiley.
- Feldman, A. M. & Serrano, R. (2006). *Welfare Economics and Social Choice Theory*. Springer.
- Johansson, Per-Olov (1991). *An Introduction to Modern Welfare Economics*. Cambridge University Press.
- Little, I.M.D. (2002). *A critique of Welfare Economics*. Oxford University Press.
- Sen, Amartya (1997). *Choice, Welfare and Measurement*. Harvard University Press.

Mapping Matrix of Course M-ECOE-046
Table 1: CO-PO Matrix for the Course M-ECOE-046

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-046.1	3	2	2	2	2	2	2	2	3	2	2	2
M-ECOE-046.2	3	2	2	3	2	2	2	2	3	2	2	2
M-ECOE-046.3	3	2	2	2	2	2	2	2	3	2	2	2
M-ECOE-046.4	3	2	2	3	2	2	2	2	3	2	2	2
AVERAGE	3	2	2	2.5	2	2	2	2	3	2	2	2

Table 2: CO-PSO Matrix for the Course M-ECOE-046

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-046.1	2	2	3	2
M-ECOE-046.2	2	2	3	2
M-ECOE-046.3	2	2	3	2
M-ECOE-046.4	2	2	3	2
AVERAGE	2	2	3	2

M.A. Economics 4th Semester
Paper- M-ECO-047 (Elective)
INDUSTRIAL ECONOMICS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECO-047.1	Understand, compare and analyse various product pricing methods along with their merits and limitations.
M-ECO-047.2	Comprehend, compare and able to present various project evaluation criteria and understand both theoretical as well as empirical evidence about mergers and acquisitions.
M-ECO-047.3	Getting familiar with various aspects of Industrial policy in India along with key issues, challenges and its appropriateness.
M-ECO-047.4	Understand and present in detail the technical aspects of firms' advertising decisions making based on different models.

Unit-I

Methods of Product Pricing

Cost-oriented methods: Mark-up, cost-plus, Break-even, target return pricing; Market-oriented Methods: Going-rate pricing, Premium pricing, Discount pricing, Sealed-bid Pricing; Peak-Load Pricing; Multi-Product Pricing; Predatory pricing; Pricing of a new product: Skimming and Penetration pricings; Non-Linear Pricing Practices: Price Discrimination.

Reading List

- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Divine, P. J., Lee, N., Jones, R. M. & Tyson, W.J. (2018). *An Introduction to Industrial Economics*. Routledge.
- Kamien, M. T. & Schwartz, N. L. (1982). *Market Structure and Innovation*. Cambridge University Press, Cambridge.
- Lipczynski, J., Wilson, J.O.S. & Goddard, J.A. (2016). *Industrial Organisation: Competition, Strategy and Policy*. Pearson.

Unit-II

Project Evaluation and Theories of Mergers

Methods of project evaluation; Risk & uncertainties in project appraisal; NPV v/s IRR; Theories and empirical evidence on Mergers and Acquisitions (M & A's) and diversification; Mergers and the Valuation; Discrepancies Hypothesis; Mueller's Model of Conglomerate Mergers; Corporate Governance Mechanisms.

Reading List

- Bains, J. S. (1996). *Industrial Organization*. Cheltenham, U. K.
- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Kamien, M. T. & Schwartz, N. L. (1982). *Market Structure and Innovation*. Cambridge University Press, Cambridge.
- Lipczynski, J., Wilson, J.O.S. & Goddard, J.A. (2016). *Industrial Organisation: Competition, Strategy and Policy*. Pearson.

Unit-III

Industrial Policy

Industrial Policy in India – evolution and paradigm shift; Recent trends in Indian industrial growth; National manufacturing Policy; MNCs, transfer of technology and issues related with TRIMS; Competition policy; Industrial sickness; Exit policy; Role of BIFR.

Reading List

- Bains, J. S. (1996). *Industrial Organization*. Cheltenham, U. K.
- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Divine, P. J., Lee, N., Jones, R. M. & Tyson, W.J. (2018). *An Introduction to Industrial Economics*. Routledge.
- Hay, D. & Morris, D. J. (1979). *Industrial Economics: Theory and Evidence*. Oxford University Press, New Delhi.

Unit-IV

Advertising Decisions of Firm

The Advertising Decision: Marginalistic, Profit-Maximising Models of The Advertising Decision; Buchanan's Advertising-Price Model; Schmalensee's Model of Oligopoly Advertising; A Managerialist Model of Advertising: The Baumol-Hawkins, Bushnell-Kafoglis Static Model; A Model of Advertising Barriers: Williamson's Model of Advertising as an Entry; Prevention Strategy; Effects of Advertising.

Reading List

- Bains, J. S. (1996). *Industrial Organization*. Cheltenham, U. K.
- Barthwal, R. R. (1985). *Industrial Economics*. Wiley Eastern Ltd., New Delhi.
- Hay, D. & Morris, D. J. (1979). *Industrial Economics: Theory and Evidence*. Oxford University Press, New Delhi.
- Koutsoyiannis, A. (1982). *Non-Price Decisions: The Firm in a Modern Context*. The Macmillan Press Ltd., London.
- Smith, D. M. (1971). *Industrial Location: An Economic and Geographic Analysis*. John Wiley, New York.
- Symeonidis, George (1999). *Industrial Economics*. University of London Study Guide (SG).

Mapping Matrix of Course M-ECO-047
Table 1: CO-PO Matrix for the Course M-ECO-047

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECO-047.1	3	3	3	2	2	2	2	-	-	2	3	3
M-ECO-047.2	3	3	3	3	2	2	2	-	-	2	3	3
M-ECO-047.3	3	3	3	2	2	2	2	-	-	2	3	3
M-ECO-047.4	3	3	3	3	2	2	2	-	-	2	3	3
AVERAGE	3	3	3	2.5	2	2	2	-	-	2	3	3

Table 2: CO-PSO Matrix for the Course M-ECO-047

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECO-047.1	3	3	3	2
M-ECO-047.2	3	3	3	2
M-ECO-047.3	3	3	3	2
M-ECO-047.4	3	3	3	2
AVERAGE	3	3	3	2

M.A. Economics 4th Semester
Paper- M-ECOE-048 (Elective)
FINANCIAL MARKETS AND INSTITUTIONS-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-048.1	Understand the mechanics and conventions of the foreign exchange market and the motivation of different participants in trading foreign currencies.
M-ECOE-048.2	Understand the working of some emerging financial institutions and appreciate the changing role of regulatory authorities of financial system in India.
M-ECOE-048.3	To equip students with the knowledge and skills necessary to become employable in the financial service industry.
M-ECOE-048.4	Understand various financial services being delivered in Indian financial system.

Unit-I

Financial Services

Investment Banking - Introduction, Functions, Types; Investment Banking Services; Merchant Banking Services; Pre-Issue Obligations; Post-Issue Obligations; Changing Scenario of Investment Banking; Depositories and Custodians; Credit Rating- Credit Rating Agencies in India; Factoring and Forfeiting; Housing Finance; Leasing and Hire Purchase.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). *Financial Institutions and Markets: Structure, Growth and Innovations*. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Unit-II

Foreign Exchange Market

Foreign Exchange Market Structure; Risk Management in Foreign Exchange Market; Exchange Rate Determination; Trading in foreign Exchange Markets; Foreign Capital – FDI & FII; Central Bank Intervention in Foreign Exchange Market.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). *Financial Institutions and Markets: Structure, Growth and Innovations*. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Unit-III

Financial Institutions

Meaning and Functions of NBFC's; Structure and Growth of NBFIs in India; Functions and Types of Mutual Funds; Credit Unions, Savings and Loan Associations, Pension Funds, Finance Company, Investment Trusts,

Common Trusts Fund; Venture capital funds.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). *Financial Institutions and Markets: Structure, Growth and Innovations*. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Unit-IV

Regulatory Framework of Financial Institutions in India

Role, Main Features and Functions of – Securities and Exchange Board of India (SEBI), Pension Fund Regulatory and Development Authority (PFRDA), Insurance Regulatory and Development Authority (IRDA), Reserve Bank of India (RBI); Operating Procedures of Monetary Policy; Corporate Governance and SEBI.

Reading List

- Bhole, L.M. & Mahakud, J. (2017). *Financial Institutions and Markets: Structure, Growth and Innovations*. McGraw Hill Education (India) Pvt. Limited.
- Fabozzi, Frank J., Modigliani, Franco P. & Jones, Frank J. (2013). *Foundations of Financial Markets and Institutions*. Pearson Education Limited.
- Mishkin, Frederic S. (2016). *The Economics of Money, Banking and Financial Markets*. Pearson.

Mapping Matrix of Course M-ECOE-048

Table 1: CO-PO Matrix for the Course M-ECOE-048

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-048.1	3	2	2	2	3	3	2	2	2	2	2	2
M-ECOE-048.2	3	2	2	2	3	3	2	2	2	2	2	2
M-ECOE-048.3	3	2	2	2	3	3	2	2	2	2	2	2
M-ECOE-048.4	3	2	2	2	2	3	2	3	2	2	2	2
AVERAGE	3	2	2	2	2.75	3	2	2.25	2	2	2	2

Table 2: CO-PSO Matrix for the Course M-ECOE-048

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-048.1	3	2	2	2
M-ECOE-048.2	3	2	2	2
M-ECOE-048.3	3	2	2	2
M-ECOE-048.4	3	2	2	2
AVERAGE	3	2	2	2

M.A. Economics 4th Semester
Paper- M-ECOE-049 (Elective)
ECONOMICS OF GENDER AND DEVELOPMENT-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
- II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
- III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-049.1	Understand and analyze structure of wages and determinants of wage differentials.
M-ECOE-049.2	Analyze the impact of technological development and modernization on women's work participation.
M-ECOE-049.3	Understand and explain gender specific ecological concerns.
M-ECOE-049.4	Review legislation for women's entitlements, protection of property rights and social security.

Unit-I

Wage Structure and Wage Differential

Wage differential in female activities; Determinants of wage differentials: Gender, education, skill, productivity, efficiency, opportunity; Structure of wages across regions and economic sectors.

Reading List

- Boserup, E. (1970). *Women's Role in Economic Development*. George Allen and Unwin, London.
- Desai, N. & Raj, M.K. (Eds.). (1979). *Women and Society in India*. Research Center for Women Studies, SNDT University, Bombay.
- Government of India (1974). *Towards Equality – Report of the Committee on the Status of Women in India*, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.
- Krishnaraj, M., Sudarshan, R.M. & Shariff, A. (1999). *Gender, Population and Development*. Oxford University Press, New Delhi.
- Seth, M. (2000). *Women and Development: The Indian Experience*. Sage Publications, New Delhi.
- Srinivasan, K. & Shariff, A. (1998). *India: Towards Population and Development Goals*. Oxford University Press, New Delhi.
- Venkateswaran, S. (1995). *Environment, Development and the Gender Gap*. Sage Publications, New Delhi.
- Wazir, R. (2000). *The Gender Gap in Basic Education: NGOs as Change Agents*. Sage Publications, New Delhi.

Unit-II

Technical Changes and Women

Impact of technological development and modernization on women's work participation in general and in various sectors such as agriculture, non-agriculture rural activities, small and cottage industries and organized industry.

Reading List

- Boserup, E. (1970). *Women's Role in Economic Development*. George Allen and Unwin, London.
- Desai, N. & Raj, M.K. (Eds.). (1979). *Women and Society in India*. Research Center for Women Studies, SNDT University, Bombay.
- Government of India (1974). *Towards Equality – Report of the Committee on the Status of Women in India*, Department of Social Welfare, Ministry of Education and Social Welfare, New Delhi.

Unit-III

Latest Concerns & Developments and Women

Female activities, ecological and environmental concern: the two way relationship - Role of new technologies for helping women – Provision of information and training for simple harvesting of economic services.

Reading List

- Krishnaraj, M., Sudarshan, R.M. & Shariff, A. (1999). *Gender, Population and Development*. Oxford University Press, New Delhi.
- Seth, M. (2000). *Women and Development: The Indian Experience*. Sage Publications, New Delhi.
- Srinivasan, K. & Shariff, A. (1998). *India: Towards Population and Development Goals*. Oxford University Press, New Delhi.
- Venkateswaran, S. (1995). *Environment, Development and the Gender Gap*. Sage Publications, New Delhi.

Unit-IV

Issues in Empowering Women

Review of legislation for women's entitlements, protection of property rights, social security; Gender and development indices; Mainstreaming gender into development policies; Gender-planning techniques; Gender sensitive governance.

Reading List

- Krishnaraj, M., Sudarshan, R.M. & Shariff, A. (1999). *Gender, Population and Development*. Oxford University Press, New Delhi.
- Seth, M. (2000). *Women and Development: The Indian Experience*. Sage Publications, New Delhi.
- Wazir, R. (2000). *The Gender Gap in Basic Education: NGOs as Change Agents*. Sage Publications, New Delhi.

Mapping Matrix of Course M-ECOE-049
Table 1: CO-PO Matrix for the Course M-ECOE-049

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-049.1	3	2	3	2	2	2	3	2	-	-	2	2
M-ECOE-049.2	3	3	3	2	2	2	3	2	-	-	2	2
M-ECOE-049.3	3	2	3	2	2	3	3	2	-	-	2	2
M-ECOE-049.4	3	3	3	2	2	3	3	2	-	-	2	2
AVERAGE	3	2.5	3	2	2	2.5	3	2	-	-	2	2

Table 2: CO-PSO Matrix for the Course M-ECOE-049

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-049.1	3	2	2	2
M-ECOE-049.2	3	2	2	2
M-ECOE-049.3	3	2	2	2
M-ECOE-049.4	3	2	2	2
AVERAGE	3	2	2	2

M.A. Economics 4th Semester
Paper- M-ECOE-050 (Elective)
ECONOMICS AND LAW-II

Total Credit: 4
Time: 3 Hrs.
Marks: 100
External : 80
Internal : 20

Note For the paper Setter

- I] Nine Questions will be set in all and students will be required to attempt 5 questions.
 II] Question No. 1 will be compulsory and will consist of 8 short answer type questions of 2 marks spread over the entire syllabus (2*8=16 marks).
 III] For the remaining four questions, students will attempt 1 out of 2 questions from each of the four units (16 marks each).

Course Outcomes

M-ECOE-050.1	To review the economic account of different areas of law, specifically, the core principles of Economic Theory of Crime and Punishment.
M-ECOE-050.2	Comprehend the issues of Inequality, federalism, disinvestment and taxation along with their implications using various tools.
M-ECOE-050.3	Understand analyze and interpret the interaction of law with macroeconomics, business enterprises, banking, SEBI and RBI.
M-ECOE-050.4	Comprehend some of the international aspects of law mainly related to environment, MNCs and international trade(WTO, FEMA and customs duty etc.) along with observing the changes in the field.

Unit-I

Theory of Crime and Punishment

Economic Theory of Crime and Punishment; Law related to Economic offences, corruption and human rights. An Economic Theory of Legal Process – Reasons to Sue; Law and distribution of income and wealth; Inequality; Exchange of Information. Decentralization and Good Governance.

Reading List

- Cooter, R. & Ulen, T. (2012). *Law and Economics*. Addison-Wesley (Pearson).
- Ehrlich, I. (1975). The Deterrent Effect of Capital Punishment: A Question of Life or Death. *American Economic Review*, 65(3), 397-417.
- Fiorentini, G. & Zamagni, S. (1999). *The Economics of Corruption and Illegal Markets*. Edward Elgar Publishing Co., U.K.
- Miceli, T. J. (2004). *The Economic Approach to Law*. California: Stanford Economics and Finance.
- Phillips, L. & Votey, H.L. (1981). *Economics of Crime Control*. Sage Publications, London.
- Schmidh, P. (1984). *An Economic Analysis of Crime and Justice*. Academic Press, Orlando.

Unit-II

Distributive Justice

Contract theory of Distributive justice; Economic and social costs of poverty; Wealth distribution by Liability Rules; Taxation and efficiency; Personal and corporate taxation; Progressive principle; Economics of federalism; Freedom of Inter-state trade and commerce; Economics of social sector; Disinvestment in PSUs.

Reading List

- Gillies, P. & Gabriel, M. (1998). *International Trade and Business: Law, Policy and Ethics*. Cavendish Publishing Pvt. Ltd., Sydney, Australia.
- Government of India (1997). Report of Disinvestment Commission. New Delhi.
- Ramchandran, V. & Ramkrishnan, T.A. (Eds.). (2000). '*Aiyar's A.N. Indian Tax Laws (2000)*', (Vol. 2). Company Law Institute of India Pvt. Ltd., Chennai.
- Sitaramayya, B. (1984). *Inequalities and the Law*. Eastern Book Company, Lucknow.

Unit-III

Financial Regulations and Laws

Structure of firm — Kinds, Corporations, Corporate vest, Capital, Shares, Debentures, Insiders' trading, Competition Act, Role of SEBI, Economic Implications of Banking law in India; Role of RBI in banking regulation, Microfinance and Financial Inclusion.

Reading List

- Pathak B. (2014). *Indian Financial System*. Pearson Education India.
- Pike, R. & Neale, B. (2006). *Corporate Finance and Investment: Decisions and Strategies*. Prentice Hall of India Pvt. Ltd., New Delhi.
- SEBI (1994). *Nabhi's Manual of SEBI (Vols. I and II)*. Nabhi Publication, New Delhi.
- SEBI (2008). *Taxmann's SEBI Manual*. Taxmann Allied Services Pvt. Ltd., New Delhi.

Unit-IV

Environmental and Trade Agreements

National and Global Environmental Problems; International Environmental Agreements – their Legal and Economic Implications; GATT/WTO — TRIPS and TRIMS; Export-import policy; Custom duties; MNCs and Direct foreign investment; FEMA.

Reading List

- Chhibber, P. & Majumdar, S.K. (1999). Foreign Ownership and Profitability: Property Rights, Control and the Performance of Firms in Indian Industries. *Journal of Law and Economics*, 42(1), 209-238.
- Divan, S. & Rosencronz, A. (2001). *Environmental Law and Policy in India*. Oxford University Press, New Delhi.
- Kumar, A. (1999). *Environmental Problems, Protection and Control (Vols. I and II)*. Anmol Publications, Pvt. Ltd., Delhi.
- Landes, W.E. & Posner, R.A. (1989). An Economic Analysis of Copyright Law. *The Journal of Legal Studies*, 18(2), 325-363.
- Mittal, O.P. (1999). *Indian Patents Law*. Taxmann Allied Services Pvt. Ltd., New Delhi.
- Pearson, H.E. & Miller, C.G. (1994). *Commercial Exploitation of International Property*. Universal Book Traders, Delhi.
- Schmitthoff, C.M. (1986). *Schmitthoff's Export Trade: The Law and Practice of International Trade*. Sweet and Maxwell, London.
- Swanson, T.M. & Johnston, S. (1999). *Global Environmental Problems and International Environmental Agreements*. Edward Elgar Publishing Co., U.K.

Mapping Matrix of Course M-ECOE-050

Table 1: CO-PO Matrix for the Course M-ECOE-050

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-050.1	3	3	3	2	2	2	2	2	3	2	3	2
M-ECOE-050.2	3	3	3	2	2	3	2	2	3	2	3	3
M-ECOE-050.3	3	3	3	2	2	3	2	2	3	2	3	3
M-ECOE-050.4	3	3	3	2	2	3	2	2	3	2	3	3
AVERAGE	3	3	3	2	2	2.75	2	2	3	2	3	2.75

Table 2: CO-PSO Matrix for the Course M-ECOE-050

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-050.1	3	2	3	3
M-ECOE-050.2	3	2	3	3
M-ECOE-050.3	3	2	3	3
M-ECOE-050.4	3	2	3	3
AVERAGE	3	2	3	3

M.A. Economics 4th Semester
Paper- M-ECOE-051 (Elective)
DISSERTATION

Total Credit: 4
Marks: 100
External : 80
Internal : 20

Course Outcomes

M-ECOE-051.1	To conceptualize and formulate a feasible research problem demonstrating the ability to apply the acquired knowledge to the real life problems.
M-ECOE-051.2	To develop hypotheses and assumptions besides demonstrating the data collection and analytical skills.
M-ECOE-051.3	To develop creativity and originality along with the ability to integrate interdisciplinary knowledge.
M-ECOE-051.4	To demonstrate effective writing skills and follow ethical considerations.

Dissertation Format

General Introduction to the Study
Review of Literature
Research Gap
Statement of the problem
Significance of the Study
Formulation of Research Questions /Issues
Research objectives
Hypotheses
Conceptual Framework – Conceptualization & Operationalization (precise and specific meaning of the terms and concepts)
Theoretical framework
Analytical Framework
Data source (Primary/Secondary)
Sampling framework
Pilot Survey, if needed
Tools of analysis (Analytical Framework)
Limitations of the study
Chapter outlines
Chapters
Analysis of Data
Discussion of the Results
Major findings, Summary, Recommendations (if any) and Conclusion
Bibliography /References &Webliography
Appendices

Dissertation: Sequencing of Contents

	1.1. Title page	1.6 The Main Text	
	Title of the Dissertation	a. Introductory Chapter: Items 3 to 16 mentioned above	
	Name of the candidate	b. Other Chapters- Analysis, Results Interpretation	
	Name and designation of the Supervisor	c. Conclusion Chapter: Conclusions, Recommendations & Summary	
	Degree for which Dissertation is submitted	1.7 End Notes (after each Chapter)	
	Name of the Department	1.8 Bibliography or References (at the end of the Dissertation)	
	Month and year of submission of Dissertation		
	1.2 Declaration of the student & supervisor	1.9 Appendices	
	1.3 Preface	Questionnaire	
		Interview Schedule	
	1.4 Table of contents	Observation Schedule (optional)	

	Coding Frame (optional)
List of Tables	Letters sent to sample members (optional)
List of Figures	Any Other
Glossary.	
List of abbreviations	
Acknowledgment	
1.5 Abstract/ Executive Summary (One page)	
General Directions	
a. Report length 80 to 100 pages excluding Appendix and Certificates .	
b. Alignment: Justify	
c. Font: Times New roman	
d. Font size: 12	
e. Line spacing: 1.5	
f. Double line Page Border	
g. Style of The Report: Chicago Manual of Style (CMS) or American Psychological Association Style (APA)	

Mapping Matrix of Course M-ECOE-051

Table 1: CO-PO Matrix for the Course M-ECOE-051

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECOE-051.1	3	3	3	3	2	3	3	2	3	-	3	3
M-ECOE-051.2	3	3	3	3	3	2	2	2	2	-	3	3
M-ECOE-051.3	3	3	3	3	3	3	3	2	3	-	3	3
M-ECOE-051.4	3	3	3	3	3	3	3	2	3	-	3	3
AVERAGE	3	3	3	3	2.75	2.75	2.75	2	2.75	-	3	3

Table 2: CO-PSO Matrix for the Course M-ECOE-051

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECOE-051.1	3	3	3	2
M-ECOE-051.2	3	3	3	2
M-ECOE-051.3	3	3	3	2
M-ECOE-051.4	3	3	3	2
AVERAGE	3	3	3	2

M.A. Economics 2nd Semester
OESS Paper- M-ECO- GE/02 (Compulsory) w.e.f 2020-21
INTRODUCTION TO ECONOMICS

Total Credit: 2
Time: 2 Hrs.
Marks: 50

Note: Attempt any four questions out of the eight questions. All questions carry equal marks.

Course Outcomes

M-ECO- GE/02.1	Know and able to present the scope of economics along with its two main branches namely microeconomics and macroeconomics.
M-ECO- GE/02.2	Ability to analyze and explain various forms of costs, revenue, factors of production and markets using the analytical tools of microeconomics.
M-ECO- GE/02.3	Know to construct HDI and GDI as the measures of economic development and to compute budget and fiscal deficits and thus enter into the field of policy making.
M-ECO- GE/02.4	Able to analyze and present some basic concepts from open-macroeconomics.

Unit-I

Scope of Economics

Micro and Macro Economics; Central Economic Problems; Features of Capitalist Economy, Socialist Economy and Mixed Economy; Role of Government in a Market Economy; Demand and Factors Affecting Demand; Supply and factors Affecting supply.

Reading List

- Anderton, A. (2008). *Economics*. Dorling Kindersley (India) Pvt. Ltd., New Delhi.
- Sowell, T. (2011). *Basic Economics: A common Sense Guide to the Economy*. Basic Books, New York.

Unit-II

Introduction to the theory of firm

Factors of Production; Cost Concepts; Revenue Concepts; Market Forms and their Features.

Reading List

- Mankiw, G. N. (2018). *Principles of Economics*. South-Western Cengage Learning, USA.

Unit-III

Topics in Economics of Development

Concept of Economic Growth and Economic Development; Human Development Index (HDI); Gender Development Index (GDI); Budget and Fiscal Deficits; Types of Unemployment; Concepts of Saving and Investment.

Reading List

- Samuelson, P.A. & Nordhaus, W.D. (2010). *Economics*. Tata McGraw-Hill.

Unit-IV

Introduction to Balance of Payment

Current Account and Capital Account; Balance of Payment and Balance of Trade; Concept of Exchange Rate.

Reading List

- Dwivedi, D.N. (2010). *Macroeconomics: Theory and Policy*. Tata McGraw Hill Education Pvt. Ltd. New Delhi.

Mapping Matrix of Course M-ECO- GE/02

Table 1: CO-PO Matrix for the Course M-ECO-GE/02

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECO- GE/02.1	3	2	3	2	2	2	3	-	-	-	3	2
M-ECO- GE/02.2	3	3	2	2	2	2	2	-	-	-	2	2
M-ECO- GE/02.3	3	3	3	3	3	2	3	-	-	-	2	2
M-ECO- GE/02.4	3	2	2	2	2	2	3	-	-	-	2	2
AVERAGE	3	2.5	2.5	2.25	2.25	2	2.75	-	-	-	2.25	2

Table 2: CO-PSO Matrix for the Course M-ECO-GE/02

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECO- GE/02.1	3	2	3	3
M-ECO- GE/02.2	2	2	3	3
M-ECO- GE/02.3	3	3	3	3
M-ECO- GE/02.4	3	2	3	3
AVERAGE	2.75	2.25	3	3

KURUKSHETRA UNIVERSITY, KURUKSHETRA
M.A. Economics 3rd Semester
OESS Paper- M-ECO- GE/12 (Compulsory) w.e.f 2021-22
INDIAN ECONOMIC POLICY

Total Credit: 2
Time: 2 Hrs.
Marks: 50

Note: Attempt any four questions out of the eight questions. All questions carry equal marks.

Course Outcomes

M-ECO- GE/12.1	Know the scope of Indian economy in current era. And understand and able to present the conceptual framework of national income and poverty removal programmes.
M-ECO- GE/12.2	Able to make critical analysis of direct and indirect taxes. Moreover, understand and analyze the causes of inflation and instruments of fiscal policy in Indian economy.
M-ECO- GE/12.3	Ability to analyze the role of agriculture, industry and service sectors in Indian economy and understand the concepts of liberalization, privatization and globalization.
M-ECO- GE/12.4	Comprehend and present the concept of money along with the functions of commercial banks as well as RBI.

Unit-I

Introduction to Indian Economy

Basic Features of Indian Economy in Present Times; Basic Concepts in National Income; Poverty Alleviation Programmes in India.

Reading List

- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam's Indian Economy*. S. Chand Publishing, New Delhi.
- Kapila, U. (2015). *Indian Economy - Performance and Policies*. Academic Foundation.

Unit-II

Topics in Public Finance

Direct Taxes and Indirect Taxes- Types, Merits and Demerits; Fiscal Policy and its Instruments; Causes of Inflation in India.

Reading List

- Dhar, P.K. (2020). *Indian Economy: Its Growing Dimensions*. Kalyani Publishers, New Delhi.
- Gupta, J.R. *Public Economics in India – Theory and Practice*. Atlantic Publishers.
- Ministry of Finance (2020). *Union Budget*. Government of India.
- Monthly Issues of *Yojana-A Development Monthly*.

Unit-III

Sectoral Contributions in Indian Economy

Role of Agricultural Sector in India; Role of Industrial Sector in India; Role of Service Sector in India; Liberalisation, Privatisation and Globalisation- Concepts Only.

Reading List

- Kapila, U. (2018). *Indian Economy Since Independence*. Academic Foundation.
- Ministry of Finance (2020). *Economic Survey*. Government of India.
- Mishra, S.K. & Puri, V.K. (2020). *Indian Economy*. Himalaya Publications, New Delhi.
- Monthly Issues of *Kurukshetra-A Journal on Rural Development*.
- RBI (2020). *Handbook of Statistics on Indian Economy 2019-20*. Government of India.
- RBI (2019). *Handbook of Statistics on Indian States 2018-19*. Government of India.

Unit-IV

Money and Banking

Money and its Functions; Commercial Banks and their Functions; Functions of RBI; Monetary Policy and its Instruments.

Reading List

- Datt, G. & Mahajan, A. (2020). *Datt & Sundharam's Indian Economy*. S. Chand Publishing.
- Paul, R. R. (2010). *Monetary Economics*. Kalyani Publishers, New Delhi.

Mapping Matrix of Course M-ECO-GE/12

Table 1: CO-PO Matrix for the Course M-ECO-GE/12

COURSE OUTCOMES	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
M-ECO- GE/12.1	3	3	3	3	3	2	3	3	-	-	3	2
M-ECO- GE/12.2	3	3	2	2	2	2	3	2	-	-	3	2
M-ECO- GE/12.3	3	3	3	3	3	2	3	2	-	-	3	2
M-ECO- GE/12.4	3	3	3	3	3	2	3	2	-	-	3	2
AVERAGE	3	3	2.75	2.75	2.75	2	3	2.25	-	-	3	2

Table 2: CO-PSO Matrix for the Course M-ECO-GE/12

CO	PSO 1	PSO 2	PSO 3	PSO 4
M-ECO- GE/12.1	3	3	2	2
M-ECO- GE/12.2	3	2	3	3
M-ECO- GE/12.3	3	3	2	3
M-ECO- GE/12.4	3	3	3	2
AVERAGE	3	2.75	2.5	2.5

Table 3: CO-PO-PSO MAPPING: MA ECONOMICS

Course Code	PROGRAM OUTCOMES												PROGRAM SPECIFIC OUTCOMES			
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4
M-ECOC-001	3	3	3	2.25	2.25	2.25	2	3	2.25	2	3	2.25	3	2.25	2.75	3
M-ECOC-002	2.75	2.50	2.75	2.75	2.50	2.00	-	2.50	-	-	2	2	2.75	2	3	2.75
M-ECOC-003	3	3	3	2.25	3	3	2	2	-	-	2	3	3	3	2.25	3
M-ECOE -014	3	3	3	2.5	2	2	3	-	3	-	2.5	-	2.5	2.75	3	2.5
M-ECOE -015	3	3	3	3	3	3	3	-	2	-	3	3	2	3	3	2
M-ECOE -016	3	2	3	3	3	2.5	3	2	-	-	3	2	3	3	2	2
M-ECOE -017	3	3	3	2	2	2.5	-	2	-	2	3	3	3	2.25	2.75	2.75
M-ECOE -018	3	3	3	2	3	3	3	2	-	-	3	3	3	3	3	2
M-ECOE -019	3	3	3	2.25	2	2.25	2	-	3	-	2	2.50	2.75	2.50	2.75	2.50
M-ECOE -020	3	3	2.75	3	2.5	2.25	3	-	2.75	2.5	2.75	2.75	3	2	3	3
M-ECOE -021	3	3	3	2	3	2	3	-	-	-	3	3	3	3	2	3
M-ECOE -022	3	2.5	3	3	2	2.5	3	2	-	-	2	3	3	2	3	2
M-ECOC-004	3	3	3	3	3	2	-	2	3	-	3	3	3	2.75	3	3
M-ECOC-005	3	2.50	3	2.75	2.25	-	3	2.75	3	-	2.25	3	3	2.50	3	2.25
M-ECOC-006	3	3	3	3	3	2	2	2	-	-	3	3	3	3	2	2
M-ECOE -023	3	3	3	3	2	2	3	-	3	-	3	2	3	2	3	2.75
M-ECOE -024	3	3	2.75	2	3	2.25	2	-	3	-	3	3	2	3	3	2
M-ECOE -025	3	3	3	3	2	2.5	3	2	-	-	3	3	3	2.5	2	3
M-ECOE -026	3	3	3	3	2	3	2	2	3	2	3	2	3	2	3	3
M-ECOE -027	3	2	3	2	2	2.5	3	2	-	-	3	3	2.5	2.25	2.25	2
M-ECOE -028	3	3	3	2.25	2.75	2	2	2	2	2	3	2.25	2.25	2.75	2.75	2.25
M-ECOE -029	3	3	2.75	2.25	2.75	2.25	3	-	2.75	-	2.75	2.75	3	2	3	3
M-ECOE -030	3	3	3	3	3	2	3	-	-	-	3	3	2	3	2	2.75
M-ECOE -031	3	2	3	2	2	2.5	3	2	-	2	2	2	2	2	2	2
M-ECO-GE 1 To 10																
M-ECOC-007	3	3	3	3	3	2.75	2.5	-	-	-	3	3	3	3	3	2
M-ECOC-008	3	2.50	3	2.50	2.50	2	2	3	2	-	2	3	3	3	2.25	2.25
M-ECOC-009	3	2.5	3	2.5	2	2.5	3	2	-	-	2	3	3	2	2	2
M-ECOC-010	3	3	3	3	3	3	-	3	3	-	3	3	2.5	2.75	3	2.5
M-ECOC- 032	3	3	2.75	2.50	2	3	3	2.50	3	-	2	2.5	3	3	2.75	2.25
M-ECOE -033	3	2.5	3	3	3	2.5	3	2	-	-	3	3	3	2.5	2	2
M-ECOE -034	3	2.25	2.75	2.50	-	2	2	2.25	2	2	2	2	2.25	2	2.75	2.75
M-ECOE -035	3	2.25	2.75	2.50	3	2.25	-	2.25	2	2	2	2	2.25	2.5	2.75	2.75
M-ECOE-036	3	2	2	2	2.25	2	2	2.5	3	2	2	2	2	2	3	2
M-ECOE -037	3	3	3	2	2	2	2	-	3	2	3	3	3	3	3	2
M-ECOE -038	3	2.5	2.5	3	3	3	2	-	2	2	2	2	2.5	2	3	2
M-ECOE -039	3	2.5	2.5	3	3	3	2	2	-	2	3	2.5	2.5	2	3	2
M-ECOE -040	3	3	3	3	2	2	3	3	3	2	2	2	3	2.25	3	3
M-ECOE -041	3	3	3	3	2.75	2.5	3	-	2.5	-	3	3	3	3	3	2
M-ECO-GE 11 To 20																
M-ECOC-011	3	3	3	3	3	2.5	3	-	-	-	3	3	3	3	3	2
M-ECOC-012	2.75	2.75	2.75	2.50	3	2.50	2	3	2	2	2	2.75	3	3	2.33	2.33
M-ECOC-013	3	2.5	3	2.5	2	2.5	3	2	-	-	2	2	2	2	2	2
M-ECOE -042	3	3	3	3	3	2	2.50	2.50	2.75	-	3	3	3	2.50	3	2.25
M-ECOE -043	3	2.5	3	3	3	2.5	3	2	-	-	3	3	3	3	2	2
M-ECOE -044	3	3	3	2.75	2.25	2.25	-	2.50	2	2	2	2.50	2.75	2.25	2.50	2.50
M-ECOE -045	3	3	3	2	2.25	2	2.75	-	-	-	3	3	2.75	2	2	3
M-ECOE -046	3	2	2	2.5	2	2	2	2	3	2	2	2	2	2	3	2
M-ECOE -047	3	3	3	2.5	2	2	2	-	-	2	3	3	3	3	3	2
M-ECOE -048	3	2	2	2	2.75	3	2	2.25	2	2	2	2	3	2	2	2
M-ECOE -049	3	2.5	3	2	2	2.5	3	2	-	-	2	2	3	2	2	2
M-ECOE -050	3	3	3	2	2	2.75	2	2	3	2	3	2.75	3	2	3	3
M-ECOE -051	3	3	3	3	2.75	2.75	2.75	2	2.75	-	3	3	3	3	3	2

Attainment of COs:

The attainment of COs can be measured on the basis of the results of internal assessment and semester examination. The attainment is measured on scale of 3 after setting the target for COs attainment. **Following table** shows the CO attainment levels assuming the set target of 60% marks:

CO Attainment Levels for internal assessment

Attainment Level	
1 (low level of attainment)	60% of students score more than 60% of marks in class tests of a course.
2 (Medium level of attainment)	70% of students score more than 60% of marks in class tests of a course.
3 (High level of attainment)	80% of students score more than 60% of marks in class tests of a course.

Note: In the above table, the set target is assumed as 60%. It may vary in different departments/institutes. The staff councils of the Departments/institutes may finalize the set target.

A proper mapping of course outcomes with assessment methods should be defined before measuring the attainment level. The questions in tests for internal assessment are based on COs. Here it is assumed that class test-I is based on first two COs (e.g. **M-ECOC-001.1 and M-ECOC -001.2 in case of Microeconomic Analysis**) of a course with equal weightage given to both COs. Similarly, class test-II is based on next two COs (e.g. **M-ECOC-001.3 and M-ECOC -001.4 in case of Microeconomic Analysis**) of a course with equal weightage given to these two COs. For each internal assessment test, the percentage of students attaining the target level of CO is estimated and average percentage will decide the attainment level of COs. Following steps may be followed for determining the attainment level in internal assessment of a course.

- (i) Estimate the %age of students scoring set target (say 60%) or more in the question(s) of test -I based on first CO e.g.**M-ECOC-001.1.**
- (ii) Estimate the %age of students scoring set target (60%) or more in the question(s) of test-I based on second CO e.g.**M-ECOC-001.2.**
- (iii) Estimate the %age of students scoring set target (60%) or more in the question(s) of test-II based on third CO e.g.**M-ECOC-001.3.**
- (iv) Estimate the %age of students scoring set target (60%) or more in the question(s) of test-II based on the fourth COe.g.**M-ECOC-001.4.**
- (v) Take average of the percentages obtained above.
- (vi) Determine the attainment level i.e. 3, 2 or 1 as per scale defined in **the above table.**

Note: In the above steps, it is assumed that internal assessment is based on two tests only. However, if internal assessment is based on more than two tests and/or on assignments then same may be incorporated to determine the COs attainment level. There may be more than four COs for a course. The set target may also be different for different COs. These issues may be resolved by the staff councils of the departments/institutes.

For determining the attainment levels for end semester examination, it is assumed that questions in the end term examination are based on all COs of the course. Attainment levels for end semester examination of a course can be determined after the declaration of the results. The CO attainment levels for end semester examination are given **in the following Table.**

CO Attainment Levels for End Semester Examination (ESE)

Attainment Level	
1	60% of students obtained letter grade of A or above (for CBCS programs) or score more

M-ECOE -028												
M-ECOE -029												
M-ECOE -030												
M-ECOE -031												
M-ECO-GE 1 To 10												
M-ECOC-007												
M-ECOC-008												
M-ECOC-009												
M-ECOC-010												
M-ECOC- 032												
M-ECOE -033												
M-ECOE -034												
M-ECOE -035												
M-ECOE- 036												
M-ECOE -037												
M-ECOE -038												
M-ECOE -039												
M-ECOE -040												
M-ECOE -041												
M-ECO-GE 11 To 20												
M-ECOC-011												
M-ECOC-012												
M-ECOC-013												
M-ECOE -042												
M-ECOE -043												
M-ECOE -044												
M-ECOE- 045												
M-ECOE -046												
M-ECOE -047												
M-ECOE -048												
M-ECOE -049												
M-ECOE -050												
M-ECOE -051												
<i>Direct PO Attainment</i>	Average of above values	Average of above values	Average of above values								Average of above values	

The PO attainment values to be filled in above table can be obtained as follows:

For M-ECOC -001-PO1 Cell:

PO1 attainment value = (Mapping factor of **M-ECOC -101-PO1** from **Table 3** × Overall CO attainment value for the course **M-ECOC -001**)/3

For M-ECOC -002-PO1 Cell:

PO1 attainment value = (Mapping factor of **M-ECOC -002-PO1** from **Table 3** × Overall CO attainment value for the course **M-SOC -201**)/3

Similarly, values for each cell **of the above table** can be obtained. The direct attainment of POs is average of individual PO attainment values.

In order to obtain the PO attainment using indirect method, a student exit survey based on the questionnaire of POs may be conducted at end of last semester of the program. The format for the same is given **in the following table**. Average of the responses from the outgoing students for each PO is estimated. The overall PO attainment values are obtained by adding attainment values estimated using direct and indirect methods in the proportion of 80:20 as follows:

Overall attainment value for PO1 =

$0.8 \times$ average attainment value for PO1 using direct method (**from above table**) +

$0.2 \times$ average response of outgoing students for PO1

Similarly, overall attainment value can be obtained for each PO.

Questionnaire for indirect measurement of PO attainment (For outgoing students)

At the end of my degree programme I am able to do:

	Please tick any one		
Statement of PO1	3	2	1
Statement of PO2	3	2	1
Statement of PO3	3	2	1
Statement of PO4	3	2	1
Statement of PO5	3	2	1
Statement of PO6	3	2	1
Statement of PO7	3	2	1
Statement of PO8	3	2	1
Statement of PO9	3	2	1
Statement of PO10	3	2	1
Statement of PO11	3	2	1
Statement of PO12	3	2	1
3: Strongly Agree; 2: Agree; 1: Average			

Overall PO attainment values can be written as shown in the following Table.

Overall PO attainment Values

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Direct PO attainment												
Indirect PO attainment												
Overall PO attainment												
Target	2	2	2	2	2	1.5	2	2	2	2	1.5	1.5

The overall PO attainment values obtained above are compared with set target. The set target for each PO may be different and can be finalized by the staff councils of the departments/institutes. If overall PO attainment value is less than the set target value then an action plan may be prepared for improvement in the subsequent academic session.

The overall PSO attainment level based on CO-PSO mapping values and overall CO attainment values can be obtained in a similar manner.