FACULTY OF ARTS AND HUMANITIES

SYLLABUS

FOR

2022 - 2025

P.G. Department of Economics

Khalsa College, Amritsar

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FACULTY OF ARTS AND HUMANITIES

SYLLABUS FOR THE BATCH FROM THE YEAR 2022 TO YEAR 2025

Programme Code: M.A (Eco)

Programme Name: M.A. (Economics)

(Semester I- IV)

Examinations: 2022-2025

P.G. Department of Economics

Khalsa College, Amritsar

S.No.	PROGRAMME OBJECTIVES
1.	The program is specifically designed to nurture rational thinking among the students by studying the areas of consumption, Production and distribution.
2.	This program covers the fields of Microeconomics, Macroeconomics, Agriculture Quantitative techniques, Industry , banking, planning and development, international trade, public finance etc. which are the main subject of state level and national level competitive exams, the students of this program can crack various examinations easily like UPSC, IES, State Civil Services, Banking services etc.
3.	To prepare the students to develop own thinking or opinion regarding current national or international policies and issues.
4.	learning data analysis techniques
5.	understanding basic problems and issues of Indian and Punjab Economy

S.No.	PROGRAMME SPECIFIC OUTCOMES (PSOS)
PSO-1	To analyse economic problems having economic implications on various sectors of national economy
PSO-2	To develop ability to explain basic economic terms, concepts and theories
PSO-3	To develop ability to use critical thinking skills about important economic issues
PSO-4	To prepare the students to apply economic theory to real life practical issues and to study the effect of economic policy, technological advancement and demographic changes on the economy
PSO-5	To use various mathematical and statistical techniques for economic analysis.

COURSE SCHEME: M.A (Economics)							
SEMESTER – I							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
MAE–101	**Micro Economics–I**	6	75	-	25	100	7-8
MAE–102	**Macro Economics–I**	6	75	-	25	100	9-10
MAE–103	**Quantitative Methods for Economists–I**	6	75	-	25	100	11-12
MAEO-4	**Money, Banking and Finance**	6	75	-	25	100	13-14
MAEO-10	**Economics of Public Enterprises**	6	75	-	25	100	15-16

SEMESTER – II							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
MAE-201	**Micro Economics-II**	6	75	-	25	100	17-18
MAE–202	**Macro Economics-II**	6	75	-	25	100	19-20
MAE–203	**Quantitative Methods for Economists–II**	6	75	-	25	100	21-22
MAEO-9	**Economics of Agriculture**	6	75	-	25	100	23-24
MAEO-12	**Operations Research**	6	75	-	25	100	25-26

SEMESTER – III							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
MAE-301	**Economics of Development**	6	75	-	25	100	27-28
MAE-302	**International Economics-I**	6	75	-	25	100	29-30
MAE-303	**Indian Economy**	6	75	-	25	100	31-32
MAEO-1	**Public Finance**	6	75	-	25	100	33-34
MAEO-2	**Economics of Labour**	6	75	-	25	100	35-36

SEMESTER – IV							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
MAE-401	**Economics of Planning**	6	75	-	25	100	37-38
MAE-402	**International Economics-II**	6	75	-	25	100	39-41
MAE-403	**Punjab Economy**	6	75	-	25	100	42-43
MAEO-13	**Economics of Environment and Demography**	6	75	-	25	100	44-45
MAEO-5	**Industrial Economics**	6	75	-	25	100	46-47

KHALSA COLLEGE AMRITSAR
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M.A. (ECONOMICS) SEMESTER – I

MAE–101: Micro Economics–I

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of this course is to enable the students to understand how decision makers both consumers and producers take decisions in different economic environment in order to be in equilibrium. It also provides them insights into various forms of production functions, demand function, supply function, cost function etc.

Unit – I

Basic Economic Problem – Choice and Scarcity; Deductive and Inductive Methods of Analysis; Role of assumptions in theory formulation; Positive and Normative Economics; Economic Models.

Elasticities (Price, cross, income) of demand – theoretical aspects and empirical estimation; elasticity of supply.

Unit – II

Theories of demand – utility; indifference curve (price,income and substitution effects, Slutsky theorem, compensated demand curve) and their applications; Revealed preference theory.

Unit – III

Consumer's choice involving risk: describing risk, preference towards risk, the demand for risky assets; Consumer's behaviour under asymmetric information; implications of asymmetric information, market signalling, moral hazard, managerial incentives in an integrated firm,asymmetric information in labour markets–efficiency wage theory; Recent developments in demand analysis (pragmatic approach and linear expenditure systems).

Unit – IV

Production function: Short period and long period; law of variable proportions and returns to scale; Isoquants – Least cost combination of inputs; Returns to scale; Economies of scale; Multiproduct firm; Elasticity of substitution; Euler's theorem; Technical progress and production; Cobb–Douglas, CES and their properties, Traditional and modern theories of costs – Derivation of cost functions from production function; (C–D and CES).

Suggested Readings:

1. Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
2. Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.
3. Layard, P.R.G. and A.W. Walters (1978), Microeconomic Theory, McGraw Hill, New York.
4. Sen, A. (1999), Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
5. Varian, H. (2000), Microeconomic Analysis, W.W. Norton, New York.
6. Henderson, J.M. and R.E. Quandit (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
7. Da Costa G.C. (1980), Production Prices and Distribution, Tata McGraw Hill, New Delhi.
8. Healthfields and Wibe (1987), An Introduction to Cost and Production Functions, Macmillan, London.
9. Bronfenbrenner, M. (1979), Income Distribution Theory, Macmillan, London.

Course Outcomes:

S. No	**On completing the course, the students will be able to:**
CO- 1	Become aware about the optimal behaviour of various economic agents given the scarce economic resource and other constraints.
CO- 2	Understand various economic issues and applied part of the economics.
CO- 3	Gain knowledge about various types of production functions
CO- 4	Apply micro economics in managerial and public policy decision making
CO- 5	Get knowledge about fundamental principles of microeconomics.

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M.A. (ECONOMICS) SEMESTER – I

MAE–102: Macro Economics–I

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of this course is to understand the basics of national income accounting, details of classical and Keynes model of income & employment determination and understand the theories of consumption and investment Students also gain theoretical knowledge of factors affecting supply and demand for money.

Unit – I
National Income and Accounts: Concept of national income, Circular Flow of Income (four sector economy); Social Accounts and its uses. Classical and Keynesian Models of income determination.

Unit – II
Consumption Function: Keynes psychological law of consumption; short–run and long–run consumption function; Empirical evidence on consumption function; income–consumption relationship–absolute income, relative income, life cycle and permanent income hypotheses.

Unit – III
Investment Function: Inducement to invest – Marginal efficiency of investment and Marginal efficiency of capital criterion; the accelerator and investment behaviour; Jorgenson's Model.

Unit – IV
Money: Concept of money; A behavioural model of money supply determination, High powered money and money multiplier; control of money supply.
Classical and Keynesian approach to demand for money; Post–Keynesian approaches to demand for money – Patinkin and the Real Balances Effect, Approaches of Baumol and Tobin; Friedman and modern quantity theory.

Suggested Readings

1. Beckerman, W.: An Introduction to National Income Analysis.
2. Studenski, Paul A.: The Income of Nations: Part 2, Theory and Methodology.
3. Uma Datta Roy (1995), National Income Accounting, Macmillan, Choudhary.
4. Ackley, G. (1978), Macroeconomics: Theory and Policy, Macmillan, New York.
5. Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols.), Oxford University Press, London.
6. Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd ed.), Harper and Row, New York.
7. Dombusch, R. and F. Star (1997), Macroeconomics, McGraw Hill, Inc., New York.
8. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W. Norton, New York.
9. Heljdra, B.J. and V.P. Fred clock (2001), Foundations of Modern Macroeconomics Oxford University Press, New Delhi.
10. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
11. Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
12. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
13. Surrey, M.J.C. (Ed.), (1976), Macroeconomic Themes, Oxford University Press, Oxford.

Course Outcomes:

S. No	**On completing the course, the students will be able to:**
CO- 1	Get an overview on the major developments in macroeconomic theory
CO- 2	Become familiar about National income and its related concepts.
CO- 3	Analyse the income determination through Classical and Keynesian approaches
CO- 4	Study the relationship between investment and savings and understand the meaning of MEC , MEI and multiplier.
CO- 5	Understand the concept of money and different approaches to demand for money

KHALSA COLLEGE AMRITSAR
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M.A. (ECONOMICS) SEMESTER – I
MAE–103: Quantitative Methods for Economists–I

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: The objective of this course is to understand the Economic applications of various mathematical techniques like differentiation, integration, partial derivatives, Maxima and Minima, matrices, input output analysis and Linear Programming Problem.

Unit – I
Concept of function and types of functions; Rules of differentiation; Application to revenue, cost, demand, supply functions; Elasticities and their types; production function; Rules of partial differential and interpretation of partial derivatives; homogeneous functions and Euler's theorem.

Unit – II
Problem of maxima and minima in single and multivariable (upto 3) functions; Unconstrained and constrained optimization in simple economic problems; Simple applications in market equilibrium; Concept of integration; Simple rules of integration; Application to consumer's surplus and producer's surplus.

Unit – III
Determinants and their basic properties; Solution of simultaneous equations through Cramer's rule, Concept of matrix–their types, simple operations on matrices, matrix inversion and rank of a matrix; Concept of quadratic form, Eigen roots and Eigen vectors; Introduction to input–output analysis.

Unit – IV

Linear Programming –Formulation and solution through graphical and simplex method.
Statement of basic theorems of linear programming; Formulation of the dual of primal and its interpretation; Concept of duality;
Concept of a game; Strategies –simple and mixed; Value of a game; Saddle point solution; Simple applications.

Suggested Readings:

1. Allen, R.G.D. (1974), Mathematical Analysis for Economists, Macmillan Press and ELBS, London.
2. Chiang, A.C. (1986), Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
3. Gupta, S.C. (1993), Fundamentals of Applied Statistics, S. Chand & Sons, New Delhi.
4. Handry, A.T. (1999), Operations Research, Prentice Hall of India, New Delhi.
5. Speigal, M.R. (1992), Theory and Problems of Statistics, McGraw Hill Book Co., London.
6. Taha, H.A. (1977), Operations Research : An Introduction (6th Edition), Prentice Hall of India Pvt. Ltd., New Delhi.
7. Yamane, Taro (1975), Mathematics for Economists Prentice Hall of India, New Delhi.
8. Vygodsky, G.S. (1971), Mathematical Handbook (Higher Mathematics), Mir Publishers, Moscow.
9. Kothari, C.R. (1992), An Introduction to Operations Research, Vikas Publishing House, New Delhi.
10. Mustafi, C.K. (1992), Operations Research : Methods and Practice, Wiley Eastern, New Delhi.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Study the concepts of differentiation, partial derivatives and integration and their application in economics
CO- 2	Understand the concepts of Matrices, Determinants and input output analysis
CO- 3	Understand the concept of maxima and minima of functions.
CO- 4	Gain knowledge about the concept of linear programming, its formulation and solution through Graphical and Simplex method.
CO- 5	Understand the basic concepts of Game theory and its applications.

KHALSA COLLEGE AMRITSAR
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M.A. (ECONOMICS) SEMESTER – I
MAEO-4: Money, Banking and Finance

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of the course is to help the students develop a basic understanding of the financial system, nature of money and the role of financial markets in the economy as well as the role and working of banks in modern monetary economies and financial Intermediation.

Unit – I
Money : Definition, functions, role of money in socialistic and capitalistic economy, kinds of money, Inside and Outside money, money supply-components and sources, money multiplier process, Analysis of money supply in India : Significance and Determinants. Demand for Money: The traditional quantity theory; Fisher's equation ofexchange; Cambridge cash balance approach. Keyensian theory, Friedman's wealth theory, Baumol's and Tobin's analysis, empirical evidence.

Unit – II
Commercial Banks: Systems, Balance Sheet of a bank. Portfolio management-objectives and theories, Innovative banking, Credit creation by Commercial banks. Non-Bank Financial Intermediaries (NBFI's)- meaning and functions. Development banking in India- meaning and functions. impact on Indian economy.

Unit – III
Indian Banking Sector: Commercial Banks: Structure, Nationalisation of banks in India-Introduction, progress, achievements and failures. Banking Sector reforms-review of Narasimham Committee reports, implementation and impact. Regional Rural Banks(R.R. B's); Cooperative Banks in India- Structure, importance and weaknesses.

Central Banking: meaning and functions, role in developing countries, credit control, Reserve Bank of India : limitations of RBI .Monetary policy: Objectives, Targets and Indicators. Lags in Monetary policy

Unit – IV

Rate of Interest: Determination; Theories of the term structure of interest rates, Interest rate policy in India. Money and Capital markets: Structure, Treasury Bills Market, Call money market and Stock markets in India. Dichotomy in Indian money market.

Suggested Readings:

1. Thorn, Richard S., (1976), Introduction to Money and Banking, New York, Harper & Row.
2. Luckett, D.G., (1976), Money and Banking, McGraw Hill, New York.
3. Ritter, L.S. and Sibler, W.L., (1977), Principles of Money, Banking and Markets, Basic Books, New York, 3rd ed.
4. Laidler, D.E.W. (1972), The Demand for Money, Theories and Evidence, Allied Publisher, Delhi.
5. Bhole, L.M., (1998), Financial Institutions and Markets Structure, Growth and Innovations, 2nd ed.
6. Government of India, Economic Survey (various issues).
7. Reserve Bank of India (1985), Report of the Committee to review the working of the Monetary System.
8. Reserve Bank of India (1991), Report of the Committee on the Financial System (Narasimha Committee Report).
9. Gupta S.B. (2010), Monetary Economics- Instituitions, Theory and Policy, S.Chand and company, New Delhi.
10. Pathak Bharti (2019), Indian Financial System, Pearson Education India, Delhi.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Become familiar with different approaches to define money, types, role and function of money
CO-2	Study Money Multiplier Process and its Determinants
CO-3	Understand commercial banks and Non-banking financial intermediaries as well as central banking in India
CO-4	Develop an understanding about regional rural banks and cooperative banks in India
CO-5	Get knowledge about the concept of rate of interest , determination of rate of interest and term structure of interest rates

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M.A. (ECONOMICS) SEMESTER – I

MAEO-10: Economics of Public Enterprises

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: Importance of Public Enterprises in Indian Economy and their relevance in open, competitive, globalized world.

Unit – I

Role of Public Sector in economic development. Objectives, scope and growth of public sector in India. Cost-benefit analysis, shadow prices, social rate of discount, practical approaches in project selection.

Unit – II

Organisational Pattern of public enterprises. Management of Public enterprises. Personal Management in Public Enterprises, Financial management in Public enterprises.

Unit – III

Evaluation of performance of public enterprises, Measurement of efficiency in public enterprises, Pricing Policy of Public Enterprises.

Unit – IV

Accountability of Public Enterprises, Relationship with the government, Auditing of Public Enterprises. Role of Bureau of Public Enterprises, Special Committees in Public Enterprises. Case study of public sector steel industry in India-growth performance, pricing and management.

Suggested Readings:

1. Institute of Public Enterprises, Pricing and Investment in Public Enterprises Lavinge, M., Socialist Economies of Soviet Union and Europe.

2. Khera, S.S., Management and Control in Public Enterprises.

3. Sinha, J.B.S., Some Problems of Public Sector Organisation.

4. Sharma, B.S., Financial Planning in Indian Public Sector.

5. Government of India, Annual Reports on the Industrial and Commercial Undertakings of Central Government.

6. Narayan Laxmi, Principles and Practices of Public Enterprises Management.

7. Aggarwal, G.C., Public Sector Steel Industrial in India

Course Outcomes:

Sr. No.	**On completing the course, the students will be able to:**
CO- 1	Understand the role, importance and growth of public enterprises
CO-2	Understand the management of public enterprises
CO-3	Understand different project selection techniques
CO-4	Understand various efficiency measurement units
CO-5	Analyse case studies regarding growth, performance, pricing and management of public sector steel industry in India

KHALSA COLLEGE AMRITSAR
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M.A. (ECONOMICS) SEMESTER – II
MAE-201: Micro Economics-II

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: This course aims to impart the knowledge about different market conditions prevailing in an economy. It also helps them develop the basic understanding about various pricing principles to determine price and various theories to determine the welfare of an economy.

Unit I
Perfect Competition: Short run and long run equilibrium of the firm and industry, price and output determination, supply curve.
Monopoly – short run and long run equilibrium, price discrimination, inter-temporal price discrimination and peak-load pricing, monopoly control and regulation.
Monopolistic competition – General and Chamberlin approaches to equilibrium, equilibrium of the firm and group with product differentiation and selling costs, excess capacity under monopolist competition, criticism of monopolistic competition.

Unit II
Oligopoly – Non-collusive (Cournot, Bertrand, Edgeworth, Chamberlin, Kinked demand curve and Stackelberg's solution) and collusive (Cartels and Mergers, price leadership and basing point price system) models.
Price and output determination under monopsony and bilateral monopoly.

Unit III
Baumol's sales revenue maximization model; Williamson's model of managerial discretion;
Marris model of managerial enterprise; Full cost pricing rule, limit pricing theory.
Game theory and competitive strategy : dominant strategies and nash equilibrium, repeated games, threats, commitments and credibility.

Neo-classical approach – Marginal productivity theory; Modern Theory of distribution; technical progress and factor shares.

Unit IV

Pigovian welfare economics; Measurement of social welfare, Pareto optimal conditions; Perfect competition and pareto optimality; Compensation principle; Social welfare function : Burgeson's criterion, grand utility possibility frontier and welfare function; market failure, externalities and property rights, public goods, incomplete information; Theory of Second Best, Arrow's impossibility theorem.

Partial and General Equilibrium, equity-efficiency trade off; existence, stability and uniqueness of equilibrium and general equilibrium.

Suggested Readings:

1. Kreps, David M. (1990), A Course in Microeconomic Theory, Princeton University Press, Princeton.
2. Koutsoyiannis, A. (1979), Modern Microeconomics, (2nd Edition), Macmillan Press, London.
3. Layard, P.R.G. and A.W. Walters (1978), Microeconomic Theory, McGraw Hill, New York.
4. Sen, A. (1999), Microeconomics : Theory and Applications, Oxford University Press, New Delhi.
5. Varian, H. (2000), Microeconomic Analysis, W.W. Norton, New York.
6. Henderson, J.M. and R.E. Quandit (1980), Microeconomic Theory : A Mathematical Approach, McGraw Hill, New Delhi.
7. Da Costa G.C. (1980), Production Prices and Distribution, Tata McGraw Hill, New Delhi.
8. Healthfields and Wibe (1987), An Introduction to Cost and Production Functions, Macmillan, London.
9. Bronfenbrenner, M. (1979), Income Distribution Theory, Macmillan, London.

Course Outcomes:

S. No	**On completing the course, the students will be able to:**
CO- 1	Become aware about different market conditions prevailing in an economy.
CO- 2	Understand and analyse the pricing and output decisions under various market structure.
CO- 3	Understand factor pricing and different theories of distribution
CO- 4	Study about partial and general equilibrium analysis
CO- 5	Understand basic tools in analysing the welfare of an economy and evaluate different criteria to assess the economic welfare.

KHALSA COLLEGE AMRITSAR
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M.A. (ECONOMICS) SEMESTER – II

MAE–202 : Macro Economics–II

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The aim of the course is to make the students understand the basic framework of IS-LM mechanism, relative effectiveness of monetary and fiscal policies ,the basic theories of inflation and features of important growth models.

Unit – I
Neo–classical and Keynesian Synthesis: The IS–LM model; Extension of IS–LM model with government sector, labour market and flexible prices. Relative effectiveness of monetary and fiscal policies.

Unit – II
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; Tobin's modified Philips curve; Adaptive expectations and rational expectations; Policies to control inflation.

Unit – III
Business Cycles: Theories of Schumpeter, Kaldor, Samuelson, Hicks and Goodwin's model; Control of business cycles.

Unit – IV
Macroeconomics in an Open Economy: Mundell–Fleming model–Asset markets. Monetary approach to balance of payments.
Recent Developments in Macroeconomics: The New classical critique of micro foundations,the New classical approaches; Policy implications of New classical approach; New Keynesian Approach.

Suggested Readings:

1. Beckerman, W. : An introduction to National Income Analysis.
2. Studenski, Paul A. : The Income of Nations : Part 2, Theory and Methodology.
3. Uma Datta Roy (1995), National Income Accounting, Macmillan, Choudhary.
4. Ackley, G. (1978), Macroeconomics : Theory and Policy, Macmillan, New York.
5. Blackhouse, R. and A. Salansi (Eds.) (2000), Macroeconomics and the Real World (2 Vols.), Oxford University Press, London.
6. Branson, W.A. (1989), Macroeconomic Theory and Policy, (3rd ed.), Harper and Row, New York.
7. Dombusch, R. and F. Star (1997), Macroeconomics, McGraw Hill, Inc., New York.
8. Hall, R.E. and J.B. Taylor (1986), Macroeconomics, W.W. Norton, New York.
9. Heljdra, B.J. and V.P. Fred Clock (2001), Foundations of Modern Macroeconomics Oxford University Press, New Delhi.
10. Jha, R. (1991), Contemporary Macroeconomic Theory and Policy, Wiley Eastern Ltd., New Delhi.
11. Romer, D.L. (1996), Advanced Macroeconomics, McGraw Hill Company Ltd., New York.
12. Scarfe, B.L. (1977), Cyce Growth and Inflation, McGraw Hill, New York.
13. Shapiro, E. (1996), Macroeconomic Analysis, Galgotia Publications, New Delhi.
14. Surrey, M.J.C. (Ed.), (1976), Macroeconomic Themes, Oxford University Press, Oxford.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Understand the IS–LM model and its extension with government sector, labour market and flexible prices.
CO- 2	Illustrate the meaning of inflation, deflation, identify different types of inflation, Philips curve.
CO- 3	Understand meaning and different phases of business cycles and demonstrate various theories of business cycles
CO- 4	Analyse Mundell–Fleming model–Asset markets and Monetary approach to balance of payments.
CO- 5	Understand Recent Developments in Macroeconomics

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M.A. (ECONOMICS) SEMESTER – II

MAE–203: Quantitative Methods for Economists–II

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: The objective of this course is to equip students with the understanding of various statistical techniques required for economic applications.

Unit – I

Meaning, assumptions and limitations of a simple correlation and regression analysis; Karl Pearson's product moment and Spearman's rank correlation coefficients and their properties; Concept of the least–square technique and the lines of regression; Standard error of estimate; Partial and multiple correlation and regression (applications only).

Unit – II

Analysis of Time Series : Definition, components of time series, measurement of trend by different methods, measurement of seasonal variations.
Methods of estimation of non–linear equations – parabolic, exponential, geometric, modified exponential, Gompertz and logistic, Growth rate and simple properties of time path of continuous variables.

Unit – III

Deterministic and non–deterministic experiments; Various types of events; Classical and empirical definitions of probability; Laws of addition and multiplication; Conditional probability and concept of independence; Baye's theorem and its applications. Elementary concept of random variable; Probability, mass and density functions; Expectation, moments and moment generating functions; Properties (without derivations) of binomial, Poisson and normal distributions.

Unit – IV

Basic concepts of sampling – random and non–random sampling; Simple random sampling; Stratified random and p.p.s. sampling; Concept of an estimator and its sampling distribution; Concepts of statistical hypotheses – Null and alternative ; level of significance; Type–1 and Type–2 errors; Confidence interval; Hypothesis testing in respect of means and proportions.

Suggested Readings:

1. Chou, Y. (1975), Statistical Analysis, Holt Reinhart, General Statistics, Prentice Hall of India, New Delhi.
2. Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.
3. Millar, J. (1996), Statistics for Advanced Level, Cambridge University Press, Cambridge.
4. Nagar, A.L. and R.K. Das (1993), Basic Statistics, Oxford University Press, New Delhi.
5. Hogg, R.V. and A.T. Crag (1970), Introduction to Mathematical Statistics (3rd Edition),Macmillan Publishing Co. New York.
6. Sukhtame, P.V. and B.V. Sukhtame (1970), Sampling Theory of Survey with Applications, Iowa State University Press, Ames.

Course Outcomes:

S. No	**On completing the course, the students will be able to:**
CO- 1	Understand the estimation of simple, partial and multiple correlation and regression coefficients and their interpretation
CO- 2	Understand the definition and components of Time series analysis and measurement of secular Trend and Seasonal variations
CO- 3	Understand the concepts and estimation of nonlinear regression
CO- 4	Understand the concept of probability, mathematical expectations, moments and the properties of theoretical probability distributions.
CO- 5	Understand various techniques of sampling and testing of hypothesis in case of large samples.

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
M.A. (ECONOMICS) SEMESTER – II

MAEO-9: Economics of Agriculture

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The course aims to provide students the knowledge about the various theories of agriculture economics, challenges of green revolution, understanding issue of food security, sustainable development and to understand various aspects of Indian agricultural marketing.

Unit I

Basic Agricultural Economics – Meaning and scope .Role of agriculture in Economic development .Interdependence between agriculture and industry. Farm Organisation – Introduction, peasent farming, capitalistic farming, state farming ,collective farming, cooperative farming.Models of agricultural development – Lewis, Fei-Ranis, Gorgenson's, Mellor, Schultz and Boserup's model.

Unit II

Basic Inputs – Irrigation, HYV seeds, mechanization, distribution mechanism of inputs; New agricultural strategy and its impact on employment and income distribution.
Food security and international trade, concept, threat, indicators and mechanism to food security. Food assistance programme (Domestic and International).

Unit III

Institutional Structure – Nature of emerging agrarian structure – co-operative farming and its evaluation with reference to productivity, employment and income distribution, Environment and soil erosion, sustainable development.
Organic farming – meaning, techniques of organic farming and its scope in India.

Unit IV

Agricultural Marketing in India– Nature of supply and demand for agricultural products; income andprice elasticity of demand and supply, rationale for stateintervention; agricultural price policy (recent). Agricultural credit in India- Sources and problems.

Main features of International trade in Agri-products.

WTO – subsidies and Indian agriculture.

Suggested Readings:

1. Bansal, P.C. (1981), Agricultural Problems of India, CBS, Delhi.
2. Bhalla, G.S. and Tyagi, D.S. (1989), Patterns in Indian Agricultural Development, RSID.
3. Dantwala, M.L. (1986), Agricultural Growth India, I.S.A.E.
4. Dasgupta, B. (1980), The New Agricultural Technology in India, Mcmillan.
5. Economic and Political Weekly, Regular Features on Review of Agriculture.
6. Kahlon, A.S. (1984), Agriculture Pricing Policy in India, Allied Publishers, New Delhi.
7. Mahendran T.(2008), Agriculture Development in India, Abhijeet Publications, Delhi.
8. Mellor,J.W.(1966),The Economics of Agriculture Development,Cornell University Press.
9. Rudra A. (1985), Indian Agriculture Economics, Allied Publishers , New Delhi.
10. Schultz, T.W. (1967), Transforming Traditional Agriculture, Yales University Press.
11. Soni, R.N.(2017), Leading Issues in Agriculture Economics, Arihant Press, Jalandhar.
12. Southworth, H.M. and Johnston, B.F. (ed.) (1967), Agricultural Development and Economic Growth, Cornell University Press.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Understand the role of agriculture in economic development
CO-2	Acquire knowledge about various models of agricultural development
CO-3	Understand the concepts of New Agricultural strategy with reference to Green revolution and its implications for income distribution and employment
CO-4	Understand various types of agrarian structures with emphasis on cooperative farming with special reference to India and the concepts of sustainable development and organic farming
CO-5	Understand various aspects of agricultural price policy and agriculture marketing

KHALSA COLLEGE AMRITSAR
(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – II
MAEO-12: Operations Research

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: Powerful tool in decision making under complex situations and helps in optimum utilization of the resources. A must have skill for students involved in research.

Unit – I
Definition, significance, scope and limitations of operations research.
Linear Programming: Assumptions, formulation and solution by graphic method, simplex and two phase simplex method.

Unit – II
Transportation Problems, Assignment Problems.
Game Theory: Competitive games, Pure strategy, by Dominance, Mixed strategy (2x2, mx2 and2xm), Two persons zero sum games, 'n' persons zero sum games, Solution of Game problemswith Linear Programming.

Unit – III
Queuing Models: Characteristics
Single channel Queuing models:
Model I (M/M/I) : (FCFS/_/_)
Model II (M/M/I) : (SIRO/_/_)
Model III (M/M/I) : (FCFS/N/_) – (Finite Queue Length Model)
Model IV (M/M/I) : (FCFS/n/N) - (Limited Source Model)
Inventory Model with Deterministic Demand and Probabilistic Demand.

Unit – IV

Replacement models of items that deteriorate (money value constant and changes), For items thatfail suddenly (Individual replacement policy and Group replacement policy) Project Schedulingby PERT and CPM

Suggested Readings:

1. Wagner, H.M. (1973), Principles of Operations Research with Applications to Managerial Decisions.
2. Levin, R.I. and Kirk Patrick, C.A., (1978), Quantitative Approaches to Management.
3. Hartley, R.V., (1976), Operations Research: A Managerial Emphasis.
4. Hardy, A. Taha, (1976), An Introduction to Operations Research, 2nd ed.
5. Gauss, F., Linear Programming.
6. Kambo, N.S., Mathematical Programming Techniques.

Course Outcomes:

Sr. No.	**On completing the course, the students will be able to:**
CO- 1	Get knowledge about the concepts and tools of Operations Research
CO-2	Apply different techniques to make effective business decisions
CO-3	Construct linear programming models and discuss their solution techniques.
CO-4	Understand transport and assignment models
CO-5	Analyse PERT CPM models for developing critical thinking and objective analysis of decision problems.

KHALSA COLLEGE AMRITSAR

(An Autonomous College)
M.A. (ECONOMICS) SEMESTER – III

MAE-301: Economics of Development

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: Students will be able to understand the difference between Economic growth and development , the concept of sustainable economic development and its importance and will learn the theories of growth and development .

Unit I

Economic growth and economic development – Meaning and measurement Concept of sustainable development. Human Development Index and Physical Quality of Life Index (PQLI). Obstacles to economic development, Sources of economic growth, Growth and Income Distribution : The Kuznets Hypothesis.

Growth models – Harrod-Domar, Solow, Meade, Joan Robinson, Kaldor.

Unit II

Theories of Development – Classical, Marxian, Schumpeter, Stage theory.

Approaches to Development – Myrdals theory of circular causation, Social Dualism, Technological Dualsim, Models of Dualistic growth (Lewis, Ranis and Fei and Jorgenson models).

Unit III

Strategies of development: Big push, Balanced growth, Unbalanced growth, Critical Minimum Efforts thesis, Low level equilibrium trap, Dependency theory.Agriculture and economic development.

Unit IV

Trade and development, two-gap theory, import substitution vs. export-led strategies. Role of capital formation, internal and external sources of capital formation, human capital formation and economic development, Role of foreign investment in economic development.

Suggested Readings:

1. Yotopoulos and Nugent (1976), Economics of Development – Empirical Investigation, Harper and Row, New York.
2. Higgins, B. (1966), Economic Development – Problems, Patterns and Policies, Central Book Depot, Allahabad.
3. Todaro, M.P. (1966), Economic Development in Third World, Orient Longman, Hyderabad.
4. Meier, G. (ed.) (1995), Leading Issues in Economic Development, Oxford University, New Delhi.
5. Thirlwall, A.P. (1976), Financing Economic Development, Macmillan, London.
6. Griffin &Enos. (1970), Planning Development, Edison-Wesley, London.
7. Eckaus and Parikh (1968), Planning for Growth, MIT Press, Cambridge.
8. Rudra, A. (1975), Indian Plan Models, Allied, Bombay.
9. U.N.I.D.O. (1978), Guidelines for Project Evaluation, Oxford & IBH, New Delhi.
10. Chenery, H. and T.N. Srinivasan (Eds.) (1989), Handbook of Development Economics, Vols. 1 & 2, Elsevier, Amsterdam.
11. Ghatak, S. (1986), An Introduction to Development Economics, Allen and Unwin, London.
12. Hogendorn, J. (1996), Economic Development, W.W. Norton, New York.
13. Meier, G.M. and D. Seers (Eds.) (1987), Pioneers in Development, Oxford University Press, New York.
14. Mehrotra S. and J. Richard (1998), Development with a Human Face, Oxford University Press, New Delhi.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Understand the concepts of economic growth and economic development
CO- 2	Learn about various growth models and theories of development
CO- 3	Understand the conceptual bases of Human development index and physical quality of life index
CO- 4	Understand the importance of human capital as an essential component for economic development
CO- 5	Understand different strategies of economic development

KHALSA COLLEGE AMRITSAR

(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – III

MAE-302: International Economics-I

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**
Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of this course is to understand the theories governing international trade and to study the impact of various tariff and non tariff barriers on international trade and Economic development

Unit – I
The pure theory of international trade – theories of absolute advantage, comparative advantage and opportunity costs, modern theory of international trade; Theorem of factor price equalization; Empirical testing of theory of absolute cost and comparative cost – Heckscher-Ohlin theory of trade.

Unit – II
Kravis and Linder theory of trade, Role of dynamic factors, i.e. changes in tastes, technology and factor endowments in explaining the emergence of trade; The Rybnszynski theorem – concept and policy implications of immiserzing growth; Causes of emergence and measurement of intra –industry trade and its impact of developing economies.

Unit – III
Measurements of gains from trade and their distribution; Concepts of terms of trade, their uses and limitations; Hypothesis of secular deterioration of terms of trade, its empirical relevance and policy implications for less developed countries; Trade as an engine of economic growth.

Unit – IV
The theory of interventions (Tariffs, Quotas and non-tariff barriers); Economic effects of tariffs and quotas on national income, output, employment, terms of trade, income distribution, balance of payments on trade partners both in partial and general equilibrium analysis. The political economy of non-tariff barriers and their implications; nominal, effective and optimum rates of tariffs – their measurement, impact and welfare implications.

Suggested Readings:

1. Bhagwati, J. (Ed.) (1981), International Trade : Selected Readings, Cambridge University Press, Massachusetts.
2. M. (1990), International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.
3. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
4. Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
5. Krugman, P.B. and M. Dkstfeld (1994), International Economics, Theory and Policy, Glenview, Foresman.
6. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle, NJJ. New York.
7. Soderston, Bo (1991), International Economics, TheMcmillan Press Ltd. London.
8. Corden, W.M. (1965), Recent Developments in the Theory of International Trade, Princeton University Press, Princeton.
9. Greenway, D. (1983), International Trade Policy, Macmillan Publishers Ltd., London.
10. Aggarwal, M.R. (1979), Economic Cooperation, South Aisa, S. Chand and Co., New Delhi.
11. Godstein, M. (1998), The Asian Financial Crisis : Causes and Systematic Implication, Institute for International Economics, Washington, D.C.
12. Heller, H. Robert (1968), International Monetary Economics, Prentice Hall, India.
13. Niehand, J. (1984), International Monetary Economics, John Hopkins University Press, Baltimore.
14. Brahmananda, P.R. (1982), The IMF Loan and India's Economic Failure, Himalaya Publishing House, Bombay.
15. Kenen, P.B. (1995), Economic and Monetary Union in Europe, Cambridge University Press, U.K.
16. Soloman, R. (1982), The International Monetary System 1946-85 Harper and Row Publishers, New York.
17. Tew, B. (1985), The Evaluation of the International Monetary System, 1945-85, Hutchinson.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Recall the meaning of internal and International trade.
CO-2	Analyse different theories governing international trade and their empirical testing
CO-3	Understand the causes and importance of Intra-industry trade and describe trade as an engine of growth
CO-4	Understand various concepts of terms of trade and the empirical relevance of the hypothesis of secular deterioration in terms of trade for less developed countries.
CO-5	Understand the meaning and types of various tariff and non-tariff barriers and their impact on different economic variables

KHALSA COLLEGE AMRITSAR
(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – III
MAE-303: Indian Economy

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of the course is to make students conversant with the concepts of national income, economic planning in India and major economic problems that afflict the economy along with the potential solutions and policies pursued to redress the same. They also gain insight into the performance of agricultural, industrial and external sector of India and transformative changes there in, in the current times.

Unit – I

Indian Economy

National Income of India: Growth, Structure, Inter-state variations; limitations of national income estimates. Indian Planning: Need, objectives, Types, Strategies and Evaluation. Achievements and Appraisal of 11th Five Year Plan. 12th Five Year Plan- Introduction. NITI Aayog: Introduction and Objectives

Unit – II

Major Economic Problems : Unemployment, Poverty and inequalities, Inflation,
Regional imbalances, Parallel Economy

Unit – III

Agriculture : Production and productivity trends, Green Revolution, Role of institutional and technological factors, Agriculture Price Policy, Food Security and sustainable agricultural development.

Unit – IV

Industrial sector : Policy, pattern and performance, Public vs Private Sector, Public-private partnership.
Foreign sector : Composition, growth, pattern and trends, Role of MNCs, Balance of payments, W.T.O. and India.

Suggested Readings:

1. Ahluwalia, I.J. and I.M.D. Little (Eds.) (1999), India's Economic Reforms and Development (Essay in honour of Manmohan Singh, Oxford University Press, New Delhi.
2. Bardhan , P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
3. Bawa, R.S. and P.S. Raikhy (Ed.) (1997), Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
4. Brahmananda, P.R. and V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy : Inter-State Perspectives, Bookwell, Delhi.
5. Chakravarty, S. (1987), Development Planning : The Indian Experience, Oxford University Press, New Delhi.
6. Dantwala, M.L. (1996), Dilemmas of Growth : The Indian Experience, Sage Publications, New Delhi.
7. Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
8. Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi.
9. Jain, A.K. (1986), Economic Planning in India, Ashish Publishing House, New Delhi.
10. Jalan, B. (1992), The Indian Economy – Problems and Prospects, New Delhi.
11. Jalan, B. (1996), India's Economy Policy – Preparing for the Twenty Fist Century, Viking, New Delhi.
12. Parikh, K.S. (1999), Indian Development Report – 1999-2000, Oxford University Press, New Delhi.
13. Handbook on Indian Economy – RBI Publication.
14. Sandesara, J.C. (1992), Industrial Policy and Planning, 1947-1991 : Tendencies, Interpretations and Issues, Sage Publications, New Delhi.
15. Sen, R.K. and B. Chatterjee (2001), Indian Economy : Agenda for 21st Century (Essays in honour of Prof. P.R. Brahmananda), Deep & Deep Publications, New Delhi.
16. Bawa, R.S. and P.S. Raikhy (2000), Punjab Economy : Emerging Issues, G.N.D.U., Amritsar.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Develop comprehensive understanding about the growth and structure of National Income in India.
CO-2	Evaluate Indian economic planning, have knowledge about various objectives of planning along with introduction to Niti Aayog
CO-3	Analyse the major economic problems of India and understand various policies pursued/implemented for their effective redressal.
CO-4	Understand the importance, progress and changing nature of agriculture sector and its contribution to the economy as a whole
CO-5	Examine the pattern and performance of the industrial sector of the economy, transformative changes therein and analyse various industrial policies implemented so far.

KHALSA COLLEGE AMRITSAR

(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – III
MAEO-1: Public Finance

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: Objective is to help students understand how Centre and State Governments manage their revenue and expenditure. Public Debt, Financial Stability, Budget Formulation and many other vital topics are covered in it.

Unit – I

Meaning and scope of Public Finance, Role of Public Finance in developing countries.
Distinction between public, private and merit goods.
Public revenue : sources, taxation, tax elasticity and buoyancy, taxable capacity and tax effort; Theory of incidence; equity in taxation; principles of taxation; direct and indirect taxes; effect of taxation on production and distribution; major taxes in India; tax reforms in India.
Goods and Services Tax: Merits and Demerits.

Unit – II

Theory of public expenditure, structure and growth of public expenditure, reasons for growth in public expenditure; Wagner's law; Effects of public expenditure on production and distribution. Role of public expenditure in developing countries.

Unit – III

Public budgets: kinds of budget, programme budgeting and zero-base budgeting; different concepts of budget deficits, budget of Union Government in India.

Public debt: classification, significance and burden of public debt, principles of debt management, external debt servicing, Public debt in India.

Unit – IV

Fiscal federalism – theory and problems. Criteria for resource transfer from Union to States, Centre-State financial relations in India, recommendations of the latest Finance Commission. Fiscal policy – objectives, interdependence of monetary and fiscal policies.

Suggested Readings:

1. Musgrave, R.A. (1959), The Theory of Public Finance, McGraw Hill, Kogakusha, Tokyo.

2. Musgrave, R.A. and P.B. Musgrave (1976), Public Finance in Theory and Practice, McGrawHill, Kogakusha, Tokyo.

3. Shome, P. (Ed.) (1995), Tax Policy : Handbook, Tax Division, Fiscal AffairsDepartment,International Monetary Fund, Washington D.C.

4. Herber, B.P. (1967), Modern Public Finance, Richard D. Irwin, Homewood.

5. Chelliah, Raja J. (1971), Fiscal Policy in Underdeveloped Countries, George Allen and Unwin, London.

6. Srivastava, D.K. (Ed.) (2000), Fiscal Federalism in India, Har-Anand Publications Ltd., NewDelhi.

7. Government of India (1992), Reports of the Tax Reforms Committee – Interim and Final (Chariman : Raja J. Chelliah).

8. Mundle, S. (1999), Public Finance Policy : Issues for India, Oxford University Press, NewDelhi.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Attain the knowledge about the sources of Public Revenue and taxable capacity
CO-2	Understand the causes of growing public expenditure and the impact of public expenditure on production and distribution
CO-3	Analyse the possible burden, benefits and distribution of various types of taxes
CO-4	Gain understanding of different kinds of budget and budget of Union Government in India
CO-5	Learn about central state financial relations in India and its fiscal Policy

KHALSA COLLEGE AMRITSAR

(An Autonomous College)

M.A. (Economics) Semester-III
MAEO-2: Economics of Labour

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: Students will understand the basics of labour market, labour policy and wage policy. They will also gain knowledge about the issues related to industrial disputes and dispute settlement machinery as well as about the social security measures and labour market reforms in India.

Unit – I

Nature, scope and subject matter of labour economics; Labour Market : Concept, characteristics, nature and characteristics and growth of labour markets in India. Theories of Labour markets : Classical, Neo-classical, Dualistic Labour Markets.

Unit – II

Employment and Unemployment – Concept, types and measurements; nature of unemployment in India, Employment policy in five year plans.
Wages: classical and neo-classical and bargaining theories of Wages. Concept of Wages – minimum wage, living wage and fair wages in India. Wages and productivity.

Unit – III

Trade Unions; Objectives and functions, Trade unions in India.
Industrial Relations in India. Industrial Disuputes – Causes and extent. Dispute settlement Machinery in India in the framework of Industrial Disputes Act.

Unit – IV

Social Security – social assistance, social insurance and social security policy in India. Labour Welfare: State policies with respect to labour welfare in India. Labour market reforms in India exit policy and measures to make labour market flexible; Second National Commission on labour. Globalization and labour markets.

Suggested Readings:

1. Datar, B.N.(1968) : Labour Economics, Allied Publishers, Delhi.
2. Dunlop J.T. (ed)(1957) : Theory of Wages Determination, Palgrave Macmillan.
3. Dunlop, J.T(2014), Labour in Twentieth Century, Acedemic Press.
4. Dunlop, J.T.(1993) : Industrial Relations Systems, Harward Business School press.
5. Hajela, P.D. (1998), Labour Restructuring in India : A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
6. I.L.O. : Approaches to Social Society.
7. Kadukar P.M.(2021), Fundamentals of Labour Economics, Himalaya Publishing House, New Delhi.
8. Lester, R.A. (1964), Economics of Labour, (2nd Edition), Macmillan, New York.
9. Government of India (1967) Indian Labour Year Book.
10. McConnell, C.R. and S.L. Brue (1986), Contemporary Labour Economics, McGraw-Hill, New York.
12. Papola, T.S., P.P. Ghosh and A.N. Sharma (Eds.) (1993), Labour, Employment and Industrial Relations in India, B.R. Publishing Corporation, New Delhi.
11. Sexena, R.C.(1995), Labour Problems and Social Welfare, Jai Parkash Nath Publishers, Meerut.
12. Singh, V.B(1967), An Introduction to the Study of Labour Problems, Agarwal Publishers, Delhi.
13. Venkata Ratnam, C.S. (2001), Globalization and Labour-Management Relations- Dynamics of Change, Sage Publications , New Delhi.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Analyse different theories of labour market
CO-2	Understand the influence of labour unions on the operation of labour markets
CO-3	Learn about the nature of unemployment in India , employment policy and different concepts of wages
CO-4	Understand the concepts of social security and labour welfare with respect to India
CO-5	Understand the relationship between current phase of globalisation and labour markets

KHALSA COLLEGE AMRITSAR

(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – IV
MAE-401: Economics of Planning

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The aim of this course is to make the students understand the different planning systems and relevance of planning in modern era, the concept of appropriate technology for under developed countries and transfer of technology ,the use of cost-benefit analysis and different plan models.

Unit – I

Economic Planning : Meaning, objectives, rationale and types of planning; Different planning systems, Requisites for successful planning. Planning in third world countries in the context of Globalisation and Liberalisation.

Unit – II

Investment criteria: Rationale and types. Choice of Technique: Sen-Dobb Thesis, labour

intensive vs. capital intensive technology; Choice of technique in underdeveloped countries and appropriate technique for UDC's. International transfer of technology- channels, importance and problems in the transfer of technology.

Unit – III

Project evaluation: Meaning, origin, rationale, project planning and commercial profitability

criteria; social cost benefit analysis-meaning, technique and importance. Shadow Prices: Meaning, importance and methods to compute shadow prices, Little Mirrless and UNDIO approaches – A comparison.

UNIT – IV

Indian plan models: Harrod-Domar, Mahalanobis, Frisch and Sandee, Manne and Rudra, CELP model and its applications.

Indian Planning: Objectives, strategy and evaluation of Indian planning. Resource mobilization for Indian plans.

Suggested Readings:

1. Griffin, K.D. and Enos, J. L., Planning and Development.
2. Rudra, Ashok, Indian Plan Models.
3. Eckaus, P.S. and Parikh, K.S., Planning for Growth.
4. Todaro, P., Development Planning : Models & Methods
5. Sen, A.K., Choice of Techniques.
6. United Nations, Guidelines for Project Evaluation.
7. Bhathacharya, D., India's Five Year Plans: Economic Analysis.
8. Yotopoulous, P.A. and Nugent, G., Economics of Development and Planning: An Empirical Analysis.
9. Meier, G (Ed.), Leading Issues in Economic Development (selected readings).

Course Outcomes:

S.No	**On completing the course, the students will be able to:**
CO- 1	Understand different planning systems and the relevance of planning in third world countries
CO- 2	Learn about project evaluation and cost benefit analysis
CO- 3	Understand Indian plan models and evaluation of Indian planning
CO- 4	Gain knowledge about choice of technique
CO- 5	Understand the importance of and problems in international transfer of technology

KHALSA COLLEGE AMRITSAR

(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – IV

MAE-402: International Economics-II

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of this course is to study the mechanism to correct disequilibrium in Balance of payments , theories for the determination of foreign rate of exchange and the role of various international financial institutions to overcome the trade and foreign exchange related problems.

Unit – I
Meaning and components of Balance of Payments; Equilibrium and disequilibrium in the balance of payments; The process of adjustment under systems of gold standard, fixed exchange rates and flexible exchange rates; Expenditure-reducing and expenditure-switching policies and direct controls for adjustment; Policies for achieving internal and external equilibrium simultaneously under alternative exchange rate regimes.

Unit – II
Exchange rate; meaning and theories for the determination of exchange rate (PPP, monetary,

Portfolio, and balance of payments). A critical review of the monetary approach to the theory of balance of payments adjustment.

Relative merits and demerits of Fixed and Flexible exchange rates in the context of growth and development in developing countries.

Unit – III
Forms of economic cooperation; Reforms for the emergence of trading blocs at the global level; Static and Dynamic effects of a custom union and free trade area; Rationale and economic progress of SAARC/SAPTA and ASEAN regions. Problems and prospects of forming a custom union in the Asian Regionalism (EU, NAFTA); Multilateralism and WTO; Theory of short-term capital movements and East-Asian Crisis and lessons for developing countries.

Unit – IV

Emerging International Monetary System with special reference of Post-Maastrishit developments and developing countries; Reform of the International Monetary System.

India and developing countries; Portfolio and Foreign Direct Investments; International Debt Crisis.

International trade and financial institutions – Functions of GATT/WTO (TRIPS, TRIMS), UNCTAD.

IMF: Need, adequacy and determinants of international reserves; Conditionality clause of IMF. World Bank and Asian Development Bank – Their achievements and failures; WTO and World Bank from the point of view of India.

Suggested Readings:

1. Bhagwati, J. (Ed.) (1981), International Trade : Selected Readings, Cambridge University Press, Massachusetts.
2. M. (1990), International Trade : Theory and Policy, McGraw Hill, Kogakusha, Japan.
3. Kenen, P.B. (1994), The International Economy, Cambridge University Press, London.
4. Kindleberger, C.P. (1973), International Economics, R.D. Irwin, Homewood.
5. Krugman, P.B. and M. Dkstfeld (1994), International Economics, Theory and Policy, Glenview, Foresman.
6. Salvatore, D. (1997), International Economics, Prentice Hall, Upper Saddle, NJJ. New York.
7. Soderston, Bo (1991), International Economics, The Mcmillan Press Ltd. London.
8. Corden, W.M. (1965), Recent Developments in the Theory of International Trade, Princeton University Press, Princeton.
9. Greenway, D. (1983), International Trade Policy, Macmillan Publishers Ltd., London.
10. Aggarwal, M.R. (1979), Economic Cooperation, South Aisa, S. Chand and Co., New Delhi.
11. Godstein, M. (1998), The Asian Financial Crisis : Causes and Systematic Implication, Institute for International Economics, Washington, D.C.
12. Heller, H. Robert (1968), International Monetary Economics, Prentice Hall, India.
13. Niehand, J. (1984), International Monetary Economics, John Hopkins University Press, Baltimore.
14. Brahmananda, P.R. (1982), The IMF Loan and India's Economic Failure, Himalaya Publishing House, Bombay.
15. Kenen, P.B. (1995), Economic and Monetary Union in Europe, Cambridge University Press, U.K.
16. Soloman, R. (1982), The International Monetary System 1946-85 Harper and Row Publishers, New York.
17. Tew, B. (1985), The Evaluation of the International Monetary System, 1945-85, Hutchinson.
18. Whalley, John (1985), Trade Liberalization Among Major Trading Areas, Cambridge University Press, Mass.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Recall the meaning and components of Balance of payments and understand the process of adjustment in Balance of Payment under the system of fixed and flexible exchange rates.
CO-2	Understand the meaning of foreign rate of exchange and analyse the theories for the determination of exchange rate
CO-3	Understand various forms of economic co-operation and the objectives and achievements of GATT, WTO, UNCTAD, SAARC, ASEAN, NAFTA and EU.
CO-4	Understand the working of current international monetary system and the functions of major international financial institutions like World Bank and IMF.
CO-5	Analyse the importance of international capital movements

KHALSA COLLEGE AMRITSAR

(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – IV

MAE-403: Punjab Economy

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of this course is to make students well versed in the concepts relating to structure of the state economy alongwith the problems of unemployment and population besetting the economy. This paper enables them to comprehend the recent trends and changes in Punjab's agricultural and industrial sectors. They also gain knowledge regarding the causes and impact of current fiscal crisis on the economy of state and its possible solutions.

Unit – I

Introduction to Punjab Economy: Structure of the economy; Population problem, Unemployment, Physical infrastructure : Role, growth and performance.

Unit – II

Agriculture: Output and cropping pattern, Green Revolution, its impact and implications. Agricultural Diversification; Need, potential and constraints; Rural credit, Agricultural Marketing; Contract farming : Need, growth and problems.

Unit – III

Industrial Development: Pattern, performance and potential, State and Industrial development; Recent development in Industrial Policy in Punjab; Disinvestments in industries, Impact of W.T.O. on Punjab's Industrial Development.

Unit – IV

Financial relations between centre and states, Recommendations of the latest Finance Commission; Pattern of devolution of resources from Centre to Punjab.
State Finances : Emerging pattern of revenue and expenditure in Punjab, Fiscal crisis in Punjab :Causes, impact, solutions.

Suggested Readings:

1. Ahluwalia, I.J. and I.M.D. Little (Eds.) (1999), India's Economic Reforms and Development (Essay in honour of Manmohan Singh, Oxford University Press, New Delhi.
2. Bardhan, P.K. (9th Edition) (1999), The Political Economy of Development in India, Oxford University Press, New Delhi.
3. Bawa, R.S. and P.S. Raikhy (Ed.) (1997), Structural Changes in Indian Economy, Guru Nanak Dev University Press, Amritsar.
4. Brahmananda, P.R. and V.R. Panchmukhi (Eds.) (2001), Development Experience in the Indian Economy: Inter-State Perspectives, Bookwell, Delhi.
5. Chakravarty, S. (1987), Development Planning: The Indian Experience, Oxford University Press, New Delhi.
6. Dantwala, M.L. (1996), Dilemmas of Growth: The Indian Experience, Sage Publications, New Delhi.
7. Datt, R. (Ed.) (2001), Second Generation Economic Reforms in India, Deep & Deep Publications, New Delhi.
8. Government of India, Economic Survey, (Annual), Ministry of Finance, New Delhi.
9. Jain, A.K. (1986), Economic Planning in India, Ashish Publishing House, New Delhi.
10. Jalan, B. (1992), The Indian Economy – Problems and Prospects, New Delhi.
11. Jalan, B. (1996), India's Economy Policy – Preparing for the Twenty Fist Century, Viking, New Delhi.
12. Parikh, K.S. (1999), Indian Development Report – 1999-2000, Oxford University Press, New Delhi.
13. Handbook on Indian Economy – RBI Publication.
14. Sandesara, J.C. (1992), Industrial Policy and Planning, 1947-1991: Tendencies, Interpretations and Issues, Sage Publications, New Delhi.
15. Sen, R.K. and B. Chatterjee (2001), Indian Economy: Agenda for 21st Century (Essays in honour of Prof. P.R. Brahmananda), Deep & Deep Publications, New Delhi.
16. Bawa, R.S. and P.S. Raikhy (2000), Punjab Economy: Emerging Issues, G.N.D.U.,
17. P.S. Raikhy and Paramjit Nanda: Impact of WTO Regime on Punjab Industry.

Course Outcomes:

Sr. No.	**On completing the course, the students will be able to:**
CO- 1	Effectively comprehend the structure of state's economy and understand major problems of Punjab economy
CO-2	Analyse the issues involved in the slow growth of industries and explore potential areas of industrial growth in the state.
CO-3	Examine the impact and implications of green revolution and scrutinize various issues involved in the diversification of agriculture.
CO-4	Understand the pattern of devolution of resources from Centre to state.
CO-5	Examine fiscal crisis in Punjab, its causes and potential solutions so as to devise effective policies.

KHALSA COLLEGE AMRITSAR
(An Autonomous College)

M.A. (ECONOMICS) SEMESTER – IV

MAEO-13: Economics of Environment and Demography

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objectives: Objective of the course of Economics of Environment is to make students aware about Economy- Environment Nexus and help them understand economic solutions to environmental problems while the Demography part provides insight into the population dynamics.

Unit – I
Environment-economy-population linkage, environment as a public good, common property resources.
Environmental Economics and Ecological Economics
Environmental benefits – use value and non-use values, methods of measurement, costs of environmental protection, environment and development trade-off, sustainable development, neo-classical and ecological views, integrated environmental and economic accounting.

Unit – II
Environmental policies, Pigouvian taxes and subsidies, marketable pollution permits, Coase theorem, environmental regulations – command and control, incentive based, promoting cleantechnology, energy policy.
Global issues – poverty, population and environment, global agreements, trade and environmentunder WTO regime.

Unit – III
Demography and its concepts, population and economic development, theories of population – Malthus, optimum theory, theory of demographic transition.
Factors affecting fertility, nuptiality-concept and analysis, mortality-concepts and factors affecting.

Unit – IV

Population policy in India – shift in population control to family welfare to women empowerment, population and human development issues, new population policy, tasks before National Population Commission.

Suggested Readings:

1. Kolstad, C.D. (1999), Environmental Economics, Oxford, New Delhi.
2. Goodstein, E.S. (2002), Economics and the Environment, John Wiley, New York.
3. Bhattacharya, R.N. (ed) (2001), Environmental Economics : An Indian Perspective, Oxford, New Delhi.
4. Sengupta, R.P. (2001), Ecology and Economics : An Approach to Sustainable Development, Oxford, New Delhi.
5. Kadekodi, G.K. (2004), Environmental Economics in Practice, Oxford, New Delhi.
6. Bogue, D.J. (1971), Principles of Demography, John Wiley, New York.
7. Novell, C. (1988), Methods and Models in Demography, Bellhaven Press, London.
8. Srinivasan, K. (1998), Basic Demographic Techniques and Applications, Sage, New Delhi.
9. Simon, J.L. (1992), Population and Development in Poor Countries, Princeton University Press.
10. Bose, A (1996), India's Basic Demographic Statistics, B.R. Publishing Corporation, New Delhi.
11. Agarwala S.N. (1972), India's Population Problem, Tata McGraw-Hill, Bombay.
12. Chaubey, P.K. (2000), Population Policy in India, Kanisha Publications, New Delhi.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Realize the importance and the influence of economy on the environment and vice-versa
CO-2	Study the role and importance of individuals to keep the environment clean.
CO-3	Understand global issues related to environment
CO-4	Understand various concepts of demography and population policy of India
CO-5	Gain knowledge about trade and environment under WTO regime

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
M.A. (ECONOMICS) SEMESTER – IV
MAEO-5: Industrial Economics

Credit hours /week: 6 **Total Marks: 100**
Total hours: 75 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The course aims to provide the students knowledge about the features of Public, Private and Joint Sector Enterprises , theories of market structure, conduct and performance ,Industrial policy in India and recent trends in Indian Industrial growth.

Unit – I

Framework and Problems of Industrial Economics
Concept and organization of a firm – ownership, control and objectives of the firm; Passive and Active behaviour of the firm.
Market Structure:
Sellers' concentration; Product differentiation; Entry conditions; Economies of Scale; Market structure and innovation; Theories of industrial location – Weber and Sargent Florence; Factors affecting location.

Unit – II
Market Conduct:
Product Pricing - Theories and evidence. Mergers and Acquisitions; diversification.
Market Performance:
Growth of the firm – Theory and evidence; Constraints on firm's growth; Productivity, efficiency and capacity utilization – Concept and measurement including evidence from Indian Economy.

Unit – III
Indian Industrial Growth and Pattern:
Industrial Policy in India – evolution and paradigm shift; Recent trends in Indian industrial growth; MNCs, transfer of technology and issues related with TRIMS; Privatization: Forms and global and Indian evidence; Regional industrial growth and concentration in India and dispersal policy; economic concentration and remedial measures; Issues in Industrial proliferation and environmental preservation.

Unit -IV

Project Appraisal:

Cost benefit analysis – Net Present Value (NPV) and internal rate of return (IRR) criteria – balancing private and social returns.

Industrial Labour:

Structure of industrial labour; Globalization and labour; Exit Policy and safety nets.

Suggested Readings:

1. Barthwal R.R.(2021),Industrial Economics, New Age International Private Ltd. New Delhi.
2. Chadha, V. and G.S. Bhalla (1999), Industrial Development in India: The Post-Reform Scene, Kalyanai Publishers, New Delhi
3. Hajela, F.D. (1998), Labour Restructuring in India : A Critique of the New Economic Policies, Commonwealth Publishers, New Delhi.
4. Jhabvala, R. and R.K. Subrahmanya (Eds.) (2000), The Unorganized Sector : Work Security and Social Protection, Sage Publications, New Delhi.
5. Mani N. (2021), Industrial Economics, P.B. Publishers, Delhi.
6. Papola, I.S., P.P. Ghosh and A.N. Sharma (Eds.) (1993), Labour Employment and Industrial Relations in India, B.R. Publishing Corporation, New Delhi.
8. VenkataRatnam, C.S. (2001), Globalization and Labour Management Relations : Dynamics of Change, Sage Publications Response Books, New Delhi.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Understand the structure, concept and organization of a firm – ownership, control and objectives of the firm
CO-2	Learn about the concepts of product pricing, mergers, diversification, productivity, efficiency and capacity utilization
CO-3	Understand recent trends in Indian Industrial growth and the critical evaluation of Industrial policy in India
CO-4	Understand the costs and benefit analysis
CO-5	Learn about the structure of industrial labour in India, changes with respect to globalisation and exit policy

FACULTY OF ARTS AND HUMANITIES

SYLLABUS FOR THE BATCH FROM THE YEAR 2022 TO YEAR 2025

Programme Code: B.Sc (Eco)

Programme Name: B.Sc (Economics)

(Semester I- VI)

Examinations: 2022-2025

P.G. Department of Economics

Khalsa College, Amritsar

S.No.	PROGRAMME OBJECTIVES
1.	The Program is specifically designed to nurture rational thinking among the students by studying the areas of consumption, Production and distribution.
2.	This Program covers the fields of Microeconomics, Macroeconomics, Agriculture Quantitative techniques, Industry , banking, planning and development, international trade, public finance etc. which are the main subject of state level and national level competitive exams, the students of this program can crack various examinations easily like UPSC, IES, State Civil Services, Banking services etc.
3.	To prepare the students to develop own thinking or opinion regarding current national or international policies and issues.
4.	learning to apply various mathematical and statistical tools
5.	enhancing research capability

S.No.	PROGRAMME SPECIFIC OUTCOMES (PSOS)
PSO-1	To understand the basic terms, concepts and principles of economics alongwith statistics.
PSO-2	To learn data presentation, various statistical and mathematical techniques, which are used in economic analysis.
PSO-3	To understand various macroeconomic theories like consumption, investment, banking, money, international trade, economic development and public finance.
PSO-4	To gain knowledge on the concepts and basic theories related to consumer behaviour, producer behaviour and market structure.
PSO-5	To learn about various problems of Indian economy and latest developments in the economy during post globalization era
PSO-6	To understand the fundamental concepts of mathematics and develop problem solving skills, innovative thinking and creativity.
PSO-7	To prepare students to pursue higher studies in mathematics and motivate them towards research in mathematics and related fields.
PSO-8	To gain knowledge on computer fundamentals , information technology and computer oriented numerical and statistical methods methods
PSO-9	To get proficient in computer programming like C, C++, Python, Database management system and oracle

COURSE SCHEME							
SEMESTER – I							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
BECO-1120	**Micro Economics**	4	75	-	25	100	52-53
BQT-1121	**Quantitative Techniques-I**	4	75	-	25	100	54-55

SEMESTER – II							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
BECO-1220	**Macro Economics**	4	75	-	25	100	56-57
BQT-1221	**Quantitative Techniques-II**	4	75	-	25	100	58-59

SEMESTER – III							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
BECO- 2320	**Indian Economy**	4	75	-	25	100	60-61
BQT- 2321	**Quantitative Techniques–III**	4	75	-	25	100	62-63
CSC-231	**Computer Oriented Numerical and Statistical Methods (Theory)**	4	56	19	25 (Th 19+ Pr 6)	100	64-65

SEMESTER – IV							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
BECO- 2420	**INTERNATIONAL ECONOMICS AND PUBLIC FINANCE**	4	75	-	25	100	66-67
BQT- 2421	**QUANTITATIVE TECHNIQUES–IV**	4	75	-	25	100	68-69

SEMESTER - V							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
BECO- 3520	**ECONOMICS OF DEVELOPMENT**	4	75	-	25	100	70-71
BQT- 3521	**QUANTITATIVE TECHNIQUES–V**	4	75	-	25	100	72-73

SEMESTER – VI							
Course Code	**Course Name**	**Hours/Week**	**Max. Marks**				**Page No.**
			Th	**Pr**	**IA**	**Total**	
BECO- 3620	**QUANTITATIVE METHODS FOR ECONOMISTS**	4	75	-	25	100	74-75
BQT- 3621	**QUANTITATIVE TECHNIQUES–VI**	4	75	-	25	100	76-77

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–I
ECONOMICS
BECO- 1120: Micro Economics

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

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Course Objective: The course aims at providing in depth knowledge of basic concepts related to Microeconomics as well as to make them aware about the consumer and producer behaviour, different types of market structure and factor distribution.

UNIT–I
Introductory: Definition of Economics, Adam Smith, Marshall and Robbins, Nature and Scope of Microeconomics. Basic Concepts: Human wants, Utility and Satisfaction, Basic Economic Problems.
Demand Function, Supply Function, Price Determination, Slope and Elasticity, Elasticity of Demand – Price, Income and Cross and their Measurement. Utility Analysis

UNIT–II
Indifference Curve Analysis
Theory of Production and Costs: Concept of Production Function. Laws of Returns to Scale and Law of Variable Proportions .
Cost: Traditional and Modern Costs Theory, Concepts and Costs curves in the short run and long run. Revenue Curves and their relationship with elasticity of demand.

UNIT–III
Price determination under Various Market forms:
Perfect Competition- Features and Equilibrium of firm and Industry in Short run and Long run;
Monopoly- Features and Equilibrium under short run and Long run, Discriminating Monopoly.
Monopolistic Competition – Features, equilibrium of firm and Group in Short run and Long run

UNIT–IV

Marginal Productivity Theory of Factor Pricing (with reference to labour) under Perfect Competition and Imperfect Competition, Modern Theory of Distribution.
Rent: Concept; Ricardian Theory and Modern Theory of Rent.
Interest: Concept of interest; classical theory, lonable funds theory.
Profit: Concept of profit; Risk theory and uncertainty theory.

Recommended Texts:

1. R.G. Lipsey: Introduction to positive economics, EL BS, London, 1969.
2. Stonier & Hague: A Text book of Economics Theory, 9th ed., ELBS, London, 1973.
3. Paul Samuelson : Economics, Mcgraw Hill, Kogakushad, Tokyo, 1973.
4. N.C. Ray : Microeconomic Theory, Macmillan, Delhi, 1975.
5. D. Salvatore : Microeconomics.
6. A. Koutsoyiannis: Modern microeconomics.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Learn about various definitions of Economics and the basic concepts related to Economics
CO- 2	Gain in depth knowledge on consumer behaviour
CO- 3	Understand theory of production , costs and revenue
CO- 4	Learn about various market forms, their features and equilibrium
CO- 5	Understand theories of distribution

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–I
QUANTITATIVE TECHNIQUES
BQT- 1121: QUANTITATIVE TECHNIQUES–I

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: The objective of this course is to make the students understand the various mathematical tools and techniques which have wider applications in economics, business problems and research. It will develop their strong base for quantitative aptitude and reasoning ability .

UNIT–I
Solution of Linear Equations: Solution of Simultaneous Linear Equations(upto two variable case), Applications of Linear Equations in Economics; **Solution of Quadratic Equations**. Series: **Arithmetic Progression Series**, **Geometric Progression Series** and their applications in Economics.

UNIT–II
Elements of Analytical Geometry:
Straight line: Slope and Intercept of straight line, Equations of straight line- Intercept form and two-point form.
Circle: Standard form and General Equation of the Circle.
Set theory: Union, intersection, difference, symmetric difference, complementation.

UNIT–III
Difference between a constant and a variable, concept of functions, **classifications of functions**, **Limits and continuity** of a function (Excluding Trigonometric and Inverse functions):

UNIT–IV

Concept of differentiation (ab-intio principle).

Derivatives (Excluding Trigonometric and Inverse Functions): Rules of derivatives; functions of functions rule; derivatives of implicit functions, parametric functions, exponential functions, logarithmic functions. successive derivatives

Books Recommended:

1. Monga, G.S.: Mathematics and Statistics for Economics.
2. Yamane, Taro: Mathematics for Economists.
3. Allen, R.G.D.: Mathematical Analysis for Economists.
4. Edward T Dowling: Introduction to Mathematical Economics.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Understand basic mathematical techniques like linear equations, quadratic equations, arithmetic progression, geometric progression etc.
CO- 2	Learn about advanced mathematical techniques like differentiation, limits and continuity, set theory etc.
CO- 3	Apply these mathematical techniques in different areas of economics, as these techniques have a wide range of economic applications
CO- 4	Develop their reasoning ability
CO- 5	Use these quantitative techniques to find solutions to economic and business problems.

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–II
ECONOMICS
BECO- 1220: MACRO ECONOMICS

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

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Course Objective: The objective of the course is to make the students understand the concepts of consumption and investment in an economy and the concepts of money, banking and inflation. Additionally, students will also gain knowledge about the monetary and fiscal policies.

UNIT–I
Distinction between Micro and Macro Economics; Determination of Income and Employment : Classical and Keynesian models; Say's Law of Market and aggregate demand and aggregate supply.
Consumption functions; average (short-run and long run) and marginal propensity to consume; Static and dynamic multipliers.

UNIT–II
Investment: Meaning, Demand schedules and factors affecting investment decision. Marginal Efficiency of Capital.Accelerator, multiplier-accelerator interaction.
Trade cycles-meaning, characteristics and phases.Samuelson and Hicks Models of trade cycles.

UNIT–III
Money: Its functions and role. Money and Capital Markets (Introductory). Quantity Theory of Money.Fisher's and Cambridge's equations.Liquidity preference theory.
Banking: Definitions of banks. Credit creation and credit control.

UNIT–IV
Inflation: Concept, Causes and cures. Inflation-unemployment Trade-off (only Phillips' contribution).
Macroeconomic Policies: Fiscal policy – meaning, objectives and instruments.
Monetary policy – meaning, objectives and instruments

Recommended Texts:

1. Shapiro, E. Macroeconomic Analysis, Harcourt, Brach and World, New York, 1978.
2. Dernaburg, T.F. and MC Dougall D.M., Macroeconomics : the Measurement, Analysis and Control of Aggregate Economic Activity, McGraw-Hill, Kogakusha, Tokyo, 1972.
3. Gupta, S.B. Monetary Economics : Institutions, Theory and Policy, S. Chand, New Delhi, 2000.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Understand and evaluate different theories of income and employment determination
CO- 2	Learn about consumption and investment functions
CO- 3	Understand the meaning, types, role and functions of money
CO- 4	Understand the problem of inflation, its causes, effects and solutions in an economy
CO- 5	Get an overview on fiscal and monetary policy

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–II
QUANTITATIVE TECHNIQUES
BQT- 1221: QUANTITATIVE TECHNIQUES–II

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: This course aims to impart the knowledge about various statistical techniques, which will enable the students better understanding of the concepts like Inflation, GDP growth rate, population growth rates etc. Furthermore, it will provide knowledge regarding collection of data, its organisation, analysis and how to draw conclusions from it.

UNIT–I
Statistics: Definition, Scope in Economics, Significance, Limitations. Tabulation, Classification and Graphical representation of data (Pie Chart, Bar Diagram, Histogram, Frequency Polygon, Ogive Curve, etc.).

UNIT–II
Concepts and Measures of Central Tendency: Mean, Median and Mode; Concepts and **Measures of Dispersion**; Concepts and Measures of Skewness and Kurtosis.

UNIT–III
Correlation Analysis: Introduction, Importance, Karl-Pearson's Coefficient of Correlation, Spearman's Rank Correlation Coefficient, **Simple Regression Analysis**; Difference between Correlation and Regression, Lines of Regression, Inter-relationships between Correlation and Regression Coefficients.

UNIT–IV
Index Numbers: Concept of Index Number, Purpose Construction & Problems, Laspeyre, Paasche and Fisher's Formulae, Tests of Consistency, Concept of Consumer Price Index & Whole Sale Price Index.
Analysis of Time Series: Definition, Components of Time Series, Measurement of Trend by different methods

Books Recommended:

1. Gupta, S.P.: Statistical Methods (1981).
2. Croxton, Cowden & Klein: Applied General Statistics (1973).
3. Ya-lun-chou: Statistical Analysis (1975)
4. Kapur and Sexena: Mathematical Statistics (1970)
5. Murry, R. Speigal: Theory and Problems of Statistics (1972).

Course Outcomes:

S .No	**On completing the course, the students will be able to:**
CO- 1	Learn various statistical techniques like Mean, Median, Mode, various measures of Dispersion, correlation etc., the scope of which is very vast and ever expanding.
CO- 2	Use statistical methods in diverse fields such as business and economics .
CO- 3	Pursue higher studies like M A, M. Phil. and Ph.D. where these techniques can be of utmost importance.
CO- 4	Understand Index Numbers and Time series techniques which are helpful in understanding the changing trends in economic variables like Inflation, GDP growth rates etc. in a better way
CO- 5	Move abroad for further studies as these techniques are generally used in research work/ projects.

Changed (2023-24)

KHALSA COLLEGE AMRITSAR

(An Autonomous College)

B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.A. /B.Sc. (Economics)
SEMESTER–III
ECONOMICS
BECO- 2320: INDIAN ECONOMY

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: This course reviews major trends in economic indicators and policy changes in India in the post-Independence period, with particular emphasis on major economic problems, paradigm shifts and policy of liberalization, globalization and privatisation.

UNIT–I
Nature of Indian Economy. Agriculture in India: Nature and Importance of Agriculture, Causes of Decline in Productivity, Sustainable Agricultural Growth. Green Revolution and New Agricultural Strategy. WTO and Indian Agriculture (introductory).

UNIT–II
Industry: Performance and Problems of Industrial Development in India, Public Sector and PrivateSector, Privatization of Public Sector Enterprises. Role of Small scale and Cottage Industries. Latest Industrial Policy
.

UNIT–III
Foreign Trade: Direction and Composition of Exports and Imports Since 1991, Recent Foreign Trade Policy, Balance of Payments Problem. Foreign Capital and Multinational Corporations in India.

UNIT–IV
Features of Population Growth in India.Major Problems of the Economy - Unemployment, Poverty and Inequality, Indian Tax Structure,
Planning- Objectives and Evaluation of Planning in India. NITI Aayog (introductory).

Recommended Texts:

1. Mishra and Puri (latest edition) , Indian Economy, Himalaya Publication House, Mumbai,
2. Rudder Dutt and Sundharam, Indian Economy (Latest edition), S. Chand & Co. Ltd., New Delhi.
3. A.N. Aggarwal(1990), Indian Economy, Vikas Publications, Delhi.
4. C.D. Wadhwa(1980), Indian Economic Policy ,Tata McGraw Hill, Bombay.
5. Kapila Uma(2021-22), Indian Economy since Independence(ed), Acedemic Publication, Mumbai.

Course Outcomes:

Sr. No.	**On completing the course, the students will be able to:**
CO- 1	Get an overall understanding about various sectors of the Indian economy
CO-2	Analyse various issues related to Indian Agriculture Sector
CO-3	Get an in-depth understanding about Indian Industrial sector, its growth, problems and policies
CO-4	Get an overview of foreign trade of India
CO-5	Knowledge about various problems of Indian economy, Indian tax structure and economic planning

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–III
QUANTITATIVE TECHNIQUES
BQT- 2321: QUANTITATIVE TECHNIQUES–III

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: Objective of the course is to provide the students with insight into the mathematical tools like Matrices, Partial Derivatives, Integrals, Input –Output Analysis etc. which have high applicability in Economics.

UNIT–I
Differentiation: Maxima and Minima of Functions, Partial derivatives, Higher order partial derivatives.

UNIT–II
Integration (Excluding Trigonometric and Inverse Functions): Indefinite Integrals; Integration by Partial Fractions; Integration by substitution; Integration by parts; Definite Integrals.Application of Integration in Consumer Surplus and Producer Surplus.

UNIT–III
Matrices: Definition, Types, Addition, Subtraction and Multiplication of Matrices, Scalar Multiplication, Transpose of Matrix, Determinants and their Properties, Minors and Co-factors, Rank of a Matrix, Inverse of a Matrix, Crammer's Rule for the Solution of Simultaneous system of equations. Applications of matrices in Economics.

UNIT–IV
Linear Programming: Formulation of problem, Assumptions, Graphical solution, Simplex method. Use of Artificial Variables.
Input-Output Analysis: Basic concepts, Input-Output tables for closed and open economies, Leontief Basic Input-Output Model, Simple Applications of Input-Output Analysis.

Recommended Texts:

1. Yamane Taro: Mathematics for Economics, Prentice Hall of India, New Delhi, 1995.
2. Allen R.G.D.: Mathematical Analysis for Economists, ELBS and Macmillan Press, 1971.
3. Chaing, A.: Fundamental Methods of Mathematical Economics.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Learn mathematical tools like matrices which will be used to solve system of linear equations and check the consistency of the system
CO-2	Enhance analytical ability by using the concepts of derivatives to calculate maximum and minimum values of different variables
CO-3	Understand and apply the concept of integration in solving various economic problems
CO-4	Enhance their research capability by learning to solve the problems of linear Programming, graphically and iteratively
CO-5	Understand interdependence between different economic sectors or industries through input output analysis

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–III
COMPUTER SCIENCE
CSC-231: Computer Oriented Numerical and Statistical Methods
(Theory)

Credit hours /week:4 **Total Marks: 100**
Total hours: 60 **Theory Marks: 56**
Time : 3 Hours **Theory Internal Assessment M: 19**
Practical Marks: 19
Practical Internal Assessment M: 06

Note: 1. Medium of Examination is English Language.
2. The question paper covering the entire course shall be divided into three sections.

Instructions for Paper Setters:
Section A: It will have question No.1 consisting of 10 very short answer questions from the entire syllabus. Students will attempt 6 questions. Each question will carry two marks with answer to each question up to 10 lines in length. The total weightage being **12 marks**.
Section B: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 2, 3, 4 and 5 will be set by the examiner from Unit-I of the syllabus. The students will be required to attempt any two questions. Each question will carry 11 marks. The total weightage of this section shall be **22 marks.**
Section C: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 6, 7, 8 and 9 will be set by the examiner from Unit-II of the syllabus. The students will be required to attempt any two questions. Each question will carry 11 marks. The total weightage of this section shall be **22 marks**.

Course Objectives: At the end of the course, the students will be able to:

1. To understand and implement various concepts of numerical and statistical methods to solve real life problems.
2. To develop the mathematical skills of the students in the areas of numerical methods.
3. To provide conceptual understanding of various numerical methods like solution of non-linear equations, system of linear equations, interpolation, numerical differentiation and integration with an aim of helping the students to understand the fundamentals, concepts and practical use of these methods in the field of computer sciences and applications.
4. To provide understanding of statistical problems like testing of hypotheses.

UNIT-I

Introduction

1 Numerical method, Numerical methods versus numerical analysis, Errors and Measures of errors.

2 Non-linear Equations, Iterative Solutions, Multiple roots and other difficulties, Interpolation methods, Methods of bisection, False position Method, Newton Raphson-method.

3 Simultaneous Solution of Equations, Gauss Elimination Method, Gauss Jordan method. Gauss Seidel Method, Matrix Inversion Method.

4 Interpolation and Curve Fitting, Lagrangian Polynomials, Newton Methods: Forward Difference Method, Backward Difference Method Divided Difference Method.

5 Numerical Integration and Different Trapezoidal Rule, Simpson's 1/3 Rule Simpson's 3/8 Rule.

UNIT II

Numerical differentiation by Polynomial Fit Statistical Techniques

1 Measure of Central Tendency, preparing frequency distribution table, Mean Arithmetic, Mean geometric, Mean harmonic, Mean median Mode.

2 Measure of dispersion, Skewness and Kurtosis Range, Mean deviation, Standard deviation, Co-efficient of variation, Moments Skewness Kurtosis.

3. Correlation Bivariate Distribution Multivariate distribution.

4. Regression B.C., Linear Regression, Multiple Regression.

5. Trend Analysis least square fit linear trend, Non-linear trend

$Y=ax^b$

$Y=ab^x$

$Y=ae^{bx}$

Polynomial fit: $Y= a+bx+cx^2$

References:

1 B.S. Grewal: *Numerical Methods for Engineering,* Sultan Chand Publications.

2 V. Rajaraman: *Computer Oriented Numerical Methods*, Prentice Hall of India Private Ltd.

Course Outcomes:

Sr. No.	On Completing the course, the students will be able to:
CO1	Demonstrate understanding of common numerical methods and how they are used to obtain approximate solutions
CO2	Apply various numerical methods to find our solution of algebraic and transcendental non-linear equations and also solve system of linear equations numerically using direct and iterative methods.
CO3	Understand the methods to construct interpolating polynomials and finite difference concepts (forward, backward, divided, and central difference) for prediction and also find integration to find area under curve.
CO4	Learn fundamentals concepts of statistical and optimization methods.

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–IV
ECONOMICS
BECO- 2420: INTERNATIONAL ECONOMICS AND PUBLIC FINANCE

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

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Course Objective: This course equips the students with knowledge of the basis of international trade and how is it regulated. The course teaches students about the type of currency exchange rates and their determination . The course also provides an understanding of various concepts related to public finance i.e. taxation, public revenue , public debt and public expenditure.

UNIT–I
International Trade: Internal and External Trade. Classical and Heckscher Ohlin Theories, Gains from Trade, Terms of Trade, (gross, net and income terms of trade). Trade and economic development.
Commercial Policy: Free trade vs. protection, rationale of a protectionist policy in less developed area. GATT & WTO (Introductory).

UNIT–II
Balance of Payments: Meaning and components of balance of payments, Methods for correcting adverse balance of payments, devaluation and direct control.
Rate of Exchange: Meaning and determination, Fixed and flexible exchange rates.

UNIT–III
Public Finance: Nature, scope importance.
Public Expenditure: Meaning, principles, importance, effect of public expenditure on production and distribution.

UNIT–IV
T**axes**: Meaning, classification, features of a good taxation system, canons of taxation, incidence and impact of taxation.
Public Debt: Meaning, objectives, importance, its burden.

Recommended Texts

1. Sodersten, B.O.(1980), International Economics, Macmillan, London.
2. Salvatore, B.: International Economics (2020), Macmillan Publishing Company, New York.
3. Mithani D.M.(2019), Money, Banking , International trade and Public Finance, Himalya Publishing House, New Delhi.
4. Aggarwal, M.R(2001),International Institutions and Development in Developing Countries, Deep & Deep Publications, New Delhi.
5. Musgrave, R.A.(2017),Theory of Public Finance, Mcgraw Hill Publication.
6. Acharya Rajat(2021), International Economics-An Introduction to Theory and Policy, Oxford University Press.
7. Bhatia H.L.(2019), Public Finance, Vikas Publishing House, New Delhi.
8. Rana K.C. and Verma K.N.(2019), International Economics, Vishal Publishing Company, New Delhi.
9. Herber, B.P.(1979), Modern Public Finance, Irwin Richard Inc.U.S.

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Gain knowledge about theories of International Trade
CO-2	Understand the concept and structure of balance of payments; causes of disequilibrium and measures through which disequilibrium in balance of payments can be corrected
CO-3	Understand how the exchange rate is determined
CO-4	Understand the basic aspects of public finance like taxes, public revenue, public expenditure, public debt etc.
CO-5	learn about commercial policy

KHALSA COLLEGE AMRITSAR
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B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–IV
BQT- 2421: QUANTITATIVE TECHNIQUES–IV

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: Statistical tools like Partial and Multiple Correlation, Multiple Regression, Probability and Probability Distribution enhance the analytical ability and improve research capability of students

UNIT–I
Multiple Linear Regression: Concepts, Estimation and Applications (without derivations) of: Partial and Multiple Correlation.
Non-Linear Regression: Quadratic and Exponential; Estimation of Fitting of Various Growth Curves (Modified Exponential, Gempertz and Logistic).

UNIT–II
Probability: Definition, Additive & Multiplicative Laws and their Applications, Concept of Random Variable, Probability Mass Function & Density Function, Mathematical Expectation (meaning and properties), Moments, Moment Generating Function and Characteristic Function.

UNIT–III
Theoretical Probability Distributions: Derivations of the properties and numericals of Binomial, Poisson, Normal distributions.

UNIT–IV
Sampling: Various concepts – Population, Sampling Units, Complete Enumeration sample Surveys, Concept of an Estimator and The Standard Error, Standard Error of Estimates. Features of a Good Sample, Random and Subjective Sampling, Simple Random Sampling (with and without replacement), Stratified Random Sampling (applications only).

Books Recommended:

1. Mood Graybill and Boes: Introduction to the Theory of Statistics (1974)
2. Snedecor and Cochran: Statistical Methods.
3. Sukhatme and Sukhatme: Sampling Theory of Surveys with Applications (1970).
4. Croxton Cowden and Applied General Statistics (I 973).
5. Kapur and Gupta: Fundamentals of Mathematical Statistics.
6. Murray R. Spiegel: Theory and Problems Statistics (1972).

Course Outcomes:

Sr. No.	On completing the course, the students will be able to:
CO- 1	Enhance decision making ability by learning the concept and application of correlation
CO-2	Learn regression analysis which improves the predictive ability
CO-3	Understand decision making under risk by learning the theory of probability
CO-4	Understand various probability distributions
CO-5	Learn various concepts of sampling

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–V
ECONOMICS

BECO- 3520: ECONOMICS OF DEVELOPMENT

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

Course Objective: The objective of this course is to understand the meaning and measurement of Economic Development, issues and theories related to Economic development and the role of capital formation, choice of technique and Economic planning in Economic development of a country.

UNIT–I
Economic Development: Meaning and Measurement, Economic and Non-Economic Factors, Nature of Underdevelopment, Characteristics of Undeveloped Countries. Human Development Index.
Dualism: Social and Technological Dualism, Lewis Model of Unlimited Supply of Labour, Problems of Unemployment and Disguised Unemployment.

UNIT–II
Models of Growth: Classical, Marxian, Schumpeter's, Harrod-Domar and Solow's Growth Models.

Unit-III
Rostow's Stage Theory, Strategies of Economic Development-Balanced vs. Unbalanced Growth; Theory of Big Push; Leibenstein's Critical Minimum Efforts Thesis, Export Promotion and Import Substitution.

UNIT–IV

Capital Formation – Meaning and Sources. Choice of Technique, Role of Planning in Under Developed Countries, Need, Objective, Strategy, Types and Problems of Planning.

Suggested Readings:

1. Rostow W.W.: Stages of Growth
2. G.M. Meier: Leading Issues in Economic Development.
3. MichealTodaro: Economic Development in the Third World.
4. Higgins: Economic Development: Theory and Politics
5. Meier, G.M.: Leading Issues in Economic Development, Oxford University Press, New Delhi, 1995.
6. Thirlwall, A.P.: Growth and Development, Macmillan, London, 1999.
7. Todaro, M.P.: Economic Development in Third World, Oxford University, London.
8. Yotopoulous, P.A. and Nugent, J.: Economics of Development, Harper and Row, New York.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Understand the meaning, measurement and the determinants of Economic Development.
CO- 2	Understand the characteristics of underdeveloped countries and the concept of dualism
CO- 3	Analyse various growth models and strategies of economic development.
CO- 4	Discuss the concept of capital formation and choice of technique
CO- 5	Understand the need, objectives, strategies and problems of economic planning

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–V
QUANTITATIVE TECHNIQUES

BQT- 3521: QUANTITATIVE TECHNIQUES–V

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: The objective of this course is to make the students understand the application of various techniques and tools and to evaluate them which are very helpful for students and researchers in various physical and social sciences. It is also helpful in understanding the advanced versions of syllabus of statistics.

UNIT–I

Sampling Distributions: Derivation of properties of Z, T, Chi Square and F distributions.

UNIT–II

Statistical Inference: Point & Interval Estimation; Properties of a Good Estimator, Maximum Likelihood Method of Estimation, its applications for Binomial, Poisson and Normal distributions. Basic Concepts of Null and Alternative Hypotheses, Types of Errors; One Tailed and Two Tailed Tests, Power of Test, Critical Region.

UNIT–III

Tests of significance based on normal deviate (Z), T, Chi square and F statistics.

UNIT–IV

Analysis of Variance: Introduction, Assumptions, Techniques of Analyzing Variance, Analysis of Variance of one-way and two-way classified data.

Books Recommended:

1. Sukhatne and Sampling Theory of Surveys with Sukhatme Applications (1970).
2. Goon, Gupta and An Outlines of Statistical Theory, Dass Gupta Vol. 1(1977).
3. Kapur and Gupta Fundamentals of Mathematical Statistics, Sultan Chand, New Delhi.
4. Murry, R. Spiegal Statistics: Theory & Practical (1972), McGraw Hill, New York.

Course Outcomes:

S. No	On completing the course, the students will be able to:
CO- 1	Learn about various sampling distributions
CO- 2	Understand various theoretical distributions
CO- 3	Understand the technique of ANOVA
CO- 4	Learn the tests of significance
CO- 5	Understand the practical applications of these techniques

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–VI
ECONOMICS
BECO- 3620: QUANTITATIVE METHODS FOR ECONOMISTS

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: The objective of this course is to impart understanding of the basic concepts of mathematics and statistics and the way these concepts are applied in Economics.

UNIT–I

Sets, Relations and functions and continuity, Derivative of simple functions only (excluding log & exponential functions).Maxima/Minima for single variable functions. Introduction to matrices - definition, properties & inverse.

UNIT–II

Measures of central tendency — Mean, Mode, Median and Geometric Mean; Measures of dispersion.

UNIT–III

Concepts and Measure of skewness and kurtosis: Boyle's & Karl Pearson's measures. Simple correlation& regression (ungrouped & grouped data).

UNIT–IV

Interpolation: Concepts and Methods — Binomial expansion, Newton and Lagrange's Method (with emphasis on missing values only). Price Index Numbers–Weighted and Unweighted Index Numbers, various formulae and consistency tests.

Suggested Readings:

1. Archibald, G. & R.G. Lipsey (1973); Introduction to a Mathematical Treatment of Economics, 2nd Ed. Weisdenfeld and Nicholson, London.
2. Yamane, Taro (1968); Mathematics for Economists, 2nd ed. Prentice Hall, Englewood Cliffs, New Jersey.
3. Croxton, F.E. Cowden D.J. and Klein, S. (1973); Applied General Statistics, 3rd. Ed., Prentice Hall of India, New Delhi.
4. Fox, I.A. (1972); Intermediate Economic Statistics, Wiley Eastern Pvt. Ltd., New Delhi.
5. Nagar, A.L. and Das, R.K. (1976); Basic Statistics, Oxford University Press, Bombay.
6. Baumol (1973); Economic Theory and Operations Analysis, Prentice Hall of India, Private Ltd., New Delhi.

Course Outcomes:

S.No	**On completing the course, the students will be able to:**
CO- 1	Learn about the concepts of set theory, relations , functions and continuity, Derivatives, Matrices and their economic applications
CO- 2	Understand different measures of central tendency
CO- 3	Understand different measures of dispersion
CO- 4	Understand the concepts and measurement of skewness, kurtosis, correlation and regression
CO- 5	Understand the concepts of Interpolation & extrapolation and the calculation of Index numbers

KHALSA COLLEGE AMRITSAR
(An Autonomous College)
B.A. /B.Sc. (Semester System) (12+3 System of Education)

B.Sc. (Economics)
SEMESTER–VI
BQT- 3621: QUANTITATIVE TECHNIQUES–VI

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: Instructions for the Paper–Setters/Examiners:

(i) First question consisting of 8 short answer questions (based upon the entire syllabus), out of which 5 questions are to be attempted (each carrying 3 marks).
(ii) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
(iii) Candidates are allowed to use non-scientific calculator .

Course Objective: This course aims at imparting the knowledge of econometric techniques for understanding methodology in economics. It also enables the students in getting acquainted with the tools of econometrics for applied research in economics.

UNIT–I
Definition, Nature and scope of Econometrics. Simple Linear Regression Model (OLS method) with applications.

UNIT–II
General Linear Regression Model, assumptions, properties (BLUE).
Gauss-Markov Theorem, Concepts of R2 and□R2, Test of Significance (Stress on Numericals).

UNIT–III
Econometric Problems of Heteroscedasticity and Multicollineraity in the Regression Analysis: Sources, Consequences, Tests and Remedial Measures.Specification Bias.

UNIT–IV
Problems of Auto-Correlation in the Regression Analysis: Sources, Consequences, Tests and Remedial Measures. Distributed Lag Models and Auto-Regressive Models. Dummy Variable Technique and its Uses.

Books Recommended:

1. Koutoyannis, A.: Theory of Econometrics.
2. Gujarati: Basic Economics (2003).
3. Mehta and Madnani: Basic Economics.
4. Stock and Watson: Introduction to Econometrics (2004).
5. Dougherty C.: Introduction to Econometrics (2007).

Course Outcomes:

S.No	On completing the course, the students will be able to:
CO- 1	Learn basic concepts of Econometrics
CO- 2	Understand linear regression models, their assumptions and properties
CO- 3	Gain knowledge about econometric problems
CO- 4	Learn to practically apply the techniques in business and economics
CO- 5	Use econometric techniques in research and for making future policy decisions.

Khalsa College, Amritsar

An Autonomous College

MASTER OF COMMERCE (SEMESTER – I)

MC–101: Managerial Economics

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 75 Marks**
Time: 3 Hours **Internal Assessment: 25 Marks**

Note: The question paper covering the entire course shall be divided into three sections.

Section A: It will consist of 10 very short answer questions from the entire syllabus with answer to each question upto ten lines in length. Students will attempt 10 questions. Each question will carry 1.5 marks; the total weightage being 15 marks.

Section B: It will consist of essay type/numerical questions with answer to each question upto five pages in length. Four questions will be set by the examiner from Part–I of the syllabus and the candidates will be required to attempt two questions. Each question will carry 15 marks. The total weightage of the section shall be 30 marks.

Section C: It will consist of essay type/numerical questions with answer to each question upto five pages in length. Four questions will be set by the examiner from Part–II of the syllabus and the candidates will be required to attempt two questions. Each question will carry 15 marks. The total weightage of the section shall be 30 marks.

Course Objective- This course aims at providing in depth knowledge of basic concepts related to Microeconomics as well as Macroeconomics so as to make the students aware about the consumer and producer behaviour , different types of market structure, concepts of consumption, National income and Inflation.

Part–I

- Managerial Economics: Meaning, Nature, Scope and Concepts
- Marginal Analysis: Law of Diminishing Marginal Utility, Law of Equimarginal Utility
- Law of Demand: Meaning, Determinants, Exceptions, Kinds of Demand, Change in Demand and Importance.
- Elasticity of Demand: Meaning, Types and Degrees of Elasticity of Demand, Methods of Measuring Price Elasticity of Demand, Factors Determining Elasticity of Demand, Importance.
- Indifference Curve Analysis: Meaning, Assumptions, Properties, Consumer Equilibrium, Importance.
- Production Function: Meaning, Types: Short Run and Long Run Production Function, Economies and Diseconomies of Scale.

Part–II

- Theory of Costs: Types of Costs, Traditional Theory: Long Run & Short Run, Modern Theory: Long Run & Short Run.
- Managerial Theories: Profit maximization and Sales Maximization.
- Market Structure: Meaning, Assumptions and Equilibrium of Perfect Competition, Monopoly, Monopolistic Competition.
- Oligopoly: Sweezy Model.
- National Income: Conceptual Framework, Measures of National Income, Methods of Measurement, Limitations of National Income.
- Consumption Function: Meaning, and Nature, Determinants and Measures to Raise Propensity to Consume. Keynes Psychological Law of Consumption – Meaning, Properties and Implications.
- Inflation: Meaning, Types, Theories, Causes, Effects and Control. Unemployment trade off-Philips curve analysis.

Suggested Readings:

1. Thomas, Christopher R. and Maurice, S. Charles, "*Managerial Economics – Concepts and Applications"*, 8th Edition (2006), Tata McGraw Hills, New Delhi.

2. Mehta, P L, "*Managerial Economics – Analysis, Problems and Cases*", 13th Edition (2007), Sultan Chand & Sons, Delhi.

3. Peterson and Lewis, "*Managerial Economics*", 4th Edition, Prentice Hall of India Pvt. Ltd. New Delhi.

4. Joel, Dean, "*Managerial Economics*", Prentice Hall of India, Pvt. Ltd., New Delhi.

5. Hirschey, M. "*Fundamental of Managerial Economics*", 9th Edition (2009), South Western Cengage Learning.

6. Koutsyannis A., "*Modern Microeconomics*", 2nd Edition (1977), Macmillan 7. Dwivedi, D.N., "*Managerial Economics*", 7th Edition, Vikas Publication.

8. Ahuja, H. L., "*Modern Micro Economics*", (2009), Sultan Chand and Co.

9. Deepashree, "*Principles of Micro Economics*", 2nd Edition, Ane Books Pvt. Ltd.

10. Mithani, D.M., "*Managerial Economics*", 5th Edition (2009), Himalaya Publishing House, New Delhi.

Course Outcomes:

Sr. No.	**On completion of this course, the students will be able to:**
CO- 1	Learn about Various concepts related to managerial economics.
CO- 2	Gain in depth knowledge about consumer behaviour
CO- 3	Understand theory of production and costs
CO- 4	Learn about various market forms, their features and equilibrium
CO- 5	Learn about theory of consumption and problem of inflation, its causes, effects and solutions.
CO-6	Get knowledge about National income and its related concepts

Khalsa College, Amritsar

An Autonomous College

MASTER OF COMMERCE (SEMESTER – II)

MC – 203: Statistical Analysis for Business

Credit hours /week: 4 **Total Marks: 100**
Total hours: 60 **Theory: 40 Marks**
Time: 3 Hours **Practical : 35 Marks**
Internal Assessment: 25 Marks

Note: The question paper covering the entire course shall be divided into three sections

Candidates are allowed to use non-scientific calculator .

Section A: It consists of 8 very short answer questions from the entire syllabus. Students will attempt all 8 compulsory questions. Each question will carry 1 mark; the total weightage being 8 marks.

Section B: It will consist of essay type/numerical questions with answer to each question upto five pages in length. Four questions will be set by the examiner from Part–I of the syllabus and the candidates will be required to attempt two questions. Each question will carry 8 marks. The total weightage of the section shall be 16 marks.

Section C: It will consist of essay type/numerical questions with answer to each question upto five pages in length. Four questions will be set by the examiner from Part–II of the syllabus and the candidates will be required to attempt two questions. Each question will carry 8 marks. The total weightage of the section shall be 16 marks.

Course Objective: The objective of this course is to make the students understand the application of various statistical techniques and tools and to evaluate them which are very helpful for students and researchers in various physical and social sciences. Statistical tools like Partial and Multiple Correlation, Probability and Probability Distribution enhance the analytical ability and improve research capability of students.

Part–I

- Probability Theory: Probability–classical, relative, and subjective probability; Addition and multiplication probability models.
- Probability Distributions: Binomial. Poisson, and normal distributions; Their characteristics and applications.
- Sampling and Data Collection: Sampling and sampling (probability and nonprobability) methods; Sampling and non–sampling errors.
- Primary data collection techniques; Survey and Observation methods: Secondary data sources; Commercial (Syndicated) and Non–commercial sources.

Part–II

- Questionnaire design.
- Hypotheses testing; Null and alternative hypothesis, type I and type II error.
- Large and small sampling tests–Z tests, T tests, and F tests. (ANOVA one–way and two–way), (Chi–square test.)
- Correlation: Simple, partial and multiple correlation coefficients;

Suggested Readings:

1. Chou, Y. (1975), Statistical Analysis, Holt Reinhart, General Statistics, Prentice Hall of India, New Delhi.
2. Croxton, Crowden and Klein (1971), Applied General Statistics, Prentice Hall of India, New Delhi.
3. Millar, J. (1996), Statistics for Advanced Level, Cambridge University Press, Cambridge.
4. Nagar, A.L. and R.K. Das (1993), Basic Statistics, Oxford University Press, New Delhi.
5. Hogg, R.V. and A.T. Crag (1970), Introduction to Mathematical Statistics (3rd Edition),Macmillan Publishing Co. New York.
6. Sukhtame, P.V. and B.V. Sukhtame (1970), Sampling Theory of Survey with Applications, Iowa State University Press, Ames.

Course Outcomes:

Sr. No.	On completion of this course, the students will be able to:
CO1	Enhance decision making ability by learning the concepts of correlation
CO2	Understand decision making under risk by learning the theory of probability
CO3	Understand various probability distributions
CO4	Learn various concepts of sampling
CO5	Learn tests of significance
CO6	Understand the practical application of all these techniques

Khalsa College, Amritsar
An Autonomous College

B.Com (Pass & Hons.) (Semester – I)

BCG-106: BUSINESS STATISTICS

Credit hours /week: 4 **Max Marks: 50**
Total hours: 60 **Theory: 37 Marks**
Time: 3 Hours **Internal Assessment: 13 Marks**

Note: The question paper covering the entire course shall be divided into three sections.

Candidates are allowed to use non-scientific calculator .

Section A: It will have question No.1 consisting of 10 very short answer questions from the entire syllabus with answer to each question up to five lines in length. Students will attempt 9 questions. Each question will carry one mark; The total weightage being 9 marks.

Section B: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 2, 3, 4 and 5 will be set by the examiner from Part-I of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of this section shall be 14 marks.

Section C: It will consist of essay type/numerical questions with answer to each question upto Five pages in length. Four questions numbering 6, 7, 8 and 9 will be set by the examiner from Part-II of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of the section shall be 14 marks.

Course Objective: This course aims to impart the knowledge about various statistical techniques, which will enable the students to better understand the concepts like Inflation, GDP growth rate, population growth rates etc. Statistical techniques are very helpful to the students in their research work/ projects as well.

Part - I

Definition, Functions, Scope and Limitations of Statistics.

Measures of Central Tendency: Types of averages – Arithmetic Mean (Simple and Weighted), Median and Mode.

Measures of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation and Coefficient of Variation.

Simple Correlation and Regression: Meaning, Types, Karl Pearsons & Rank Correlation (Excluding grouped data), Probable error.

Part - II

Index Numbers: Meaning and importance, Methods of construction of Index Numbers: Weighted and unweighted; Simple Aggregative Method, Simple Average of Price Relative Method, Weighted index method: Laspeyres method, Pasches method and Fishers Ideal method including Time and Factor Reversal tests, Consumer Price Index.

Time Series Analysis: Components, Estimation of Trends (Graphical method, Semi Average Method, Moving Averages method and Method of Least Squares for linear path).

Probability: Conceptual meaning and definition of probability, Theorems of probability-addition and multiplication theorem of probability and concept of conditional probability (simple applications only).

Suggested Readings:

1. Levin, Richard and David S. Rubin. "*Statistics for Management*". 7th Edition, rentice Hall of India, New Delhi.
2. Chandan, J.S., "*Statistics for Business and Economics*", Ist Edition, (1998), Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., "*Quantitative Analysis for Management*", 7th Edition, Prentice-Hall of India, New Delhi.
4. Gupta C B, Gupta V, "*An Introduction to Statistical Methods*", 23rd Edition (1995), Vikas Publications.
5. Siegel, Andrew F, *Practical Business Statistics.* International Edition, 5th Edition (2001), McGraw Hill Irwin.
6. Berenson, L.M., Krehbiel, T.C., Vishwanathan, P.K. and Levine, D.M., "Business Statistics: A First Course", 4th Edition (2008), Pearson Education.

Course Outcomes:

Sr. No.	On completion of this course, the students will be able to:
CO1	Acquire knowledge in descriptive and inferential statistics and it's applications in diverse field
CO2	Calculate and interpret the correlation between two variables.
CO3	Estimate simple linear regression analysis, regression coefficients and fit regression model to study relationships between variables
CO4	Demonstrate understanding of concepts of time series and index numbers and it's applications in different areas
CO5	Use the basic probability rules, including additive and multiplicative laws.

Khalsa College, Amritsar

Autonomous College

B.Com (Pass & Hons.) (Semester – II)

BCG-205: BUSINESS ECONOMICS

Credit hours /week: 4 **Max Marks: 50**
Total hours: 60 **Theory: 37 Marks**
Time: 3 Hours **Internal Assessment: 13 Marks**

Note: The question paper covering the entire course shall be divided into three sections.

Section A: It will have question No.1 consisting of 10 very short answer questions from the entire syllabus with answer to each question up to five lines in length. Students will attempt 9 questions. Each question will carry one mark; the total weightage being 9 marks.

Section B: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 2, 3, 4 and 5 will be set by the examiner from Part-I of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of this section shall be 14 marks.

Section C: It will consist of essay type/numerical questions with answer to each question up to five pages in length. Four questions numbering 6,7,8 and 9 will be set by the examiner from Part-II of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of the section shall be 14 marks.

Course Objective: The objective of this course is to enable the students to understand how decision makers both consumers and producers take decisions in different economic environment It also provides them insights into various forms of production functions, demand function, cost function, National Income and consumption etc.

Part – I

Theory of Demand: Meaning of demand and its types, law of demand, price elasticity of demand and its measurement.

Consumer's Behaviour: Utility approach: Brief outline of law of diminishing marginal utility and law of equi-marginal utility.

Indifference Curve Approach: Meaning, properties, price, income and substitution effect, Revealed Preference Approach.

Theory of Production: Law of variable proportions and Law of returns to scale. Short and Long run cost curves, Traditional and Modern Theory of Costs.

B.Com (Pass & Hons.) (Semester – II)

Part – II

Revenue: Average revenue, Marginal revenue and Total revenue. Relationship between average revenue and marginal revenue and Elasticity of demand.

Perfect Competition: Meaning, features, price and output determination of firm and industry under perfect competition.

Monopoly: Meaning, features, price and output determination under monopoly.

Monopolistic Competition: Meaning, features, price and output determination under monopolistic competition.

National Income: Definition and Importance of National Income. Gross and Net Domestic Product; Personal Income and Disposable Income. Measurement of National Income:

Income, Output and Expenditure Method, Problems in measurement of National Income particularly in underdeveloped countries.

Consumption: Meaning, determinants (subjective and objective) and importance. Keynes Psychological law of consumption.

Suggested Readings:

1. Maheswari & Varshney, *Managerial Economics*, S. Chand & Co., New Delhi.
2. Koutsoyiannis A., "*Modern Micro Economics*", 2nd edition,MacMillan House, New Delhi.
3. Dwivedi, D.N., "*Managerial Economics*", 7th Edition, Vikas Publication.
4. Ahuja, H. L., "*Modern Micro Economics*", (2009), Sultan Chand and Co., New Delhi.
5. Willimson, S. D., "*Macroeconomics*", 4th Edition (2010), Pearson Publication.
6. Froyen, R., "*Macroeconomics*", 9th Edition (2008), Pearson Publication.
7. Hirschey, M. "*Fundamental of Managerial Economics*", 9th Edition (2009), South Western Cengage Learning.

Course Outcomes:

Sr. No.	**On completion of this course, the students will be able to:**
CO1	Learn about basic concepts related to Business Economics
CO2	Gain in depth knowledge about utility analysis, law of demand, and indifference curve
CO3	Understand theory of production and short run,long run cost concepts
CO4	Learn about various market forms, their features and equilibrium
CO5	Learn about consumption, National income and related concepts

Khalsa College, Amritsar

An Autonomous College

B.Com (Pass & Hons.) (Semester – IV)

BCG-404: INDIAN ECONOMY

Credit hours /week: 4 **Max Marks: 50**
Total hours: 60 **Theory: 37 Marks**
Time: 3 Hours **Internal Assessment: 13 Marks**

Note: The question paper covering the entire course shall be divided into three sections.

Section A: It will have question No.1 consisting of 10 very short answer questions from the entire syllabus with answer to each question up to five lines in length. Students will attempt 9 questions. Each question will carry one mark; the total weightage being 9 marks.

Section B: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 2, 3, 4 and 5 will be set by the examiner from Part-I of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of this section shall be 14 marks.

Section C: It will consist of essay type/numerical questions with answer to each question up to five pages in length. Four questions numbering 6,7,8 and 9 will be set by the examiner from Part-II of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of the section shall be 14 marks.

Course Objective: The objective of the course is to make students conversant with the concepts of economic development, land reforms, green revolution and economic planning in India. They also gain insight into the performance of agriculture and industrial sector and also the transformative changes there in, in the current times.

Part - I

Meaning and Characteristics of underdevelopment - salient features of Indian Economy – factors responsible for development - development as distinct from growth - a comparison between Indian and other developing economies like China, Pakistan, Taiwan, Korea will give a better idea of development.

Planning in India - meaning, process, and approaches. Five Year Plans- Objectives in general and targets and performance.

Agricultural role in Indian Economy (Contribution to GNP, employment, etc.,) Problems of low productivity - Land Reforms - need and scope. The food problem and Green Revolution; Mechanisation - desirability and feasibility.

Part – II

Agricultural Marketing - Regulated Markets - warehousing - Role of Agricultural Prices commission (APC) - Procurement Policy - Buffer - Stock - Dual Pricing - Role of FCI. Agricultural Credit: Need and Sources.

Industry - importance - Role of Small Scale Industry - some large scale industries (Iron & Steel, Cotton, Textiles, Sugar, Jute, Petro-chemicals, Tea, etc.,) Industrial Sickness - causes and measures; Industrial Policy Resolutions (of 1956, 1985 & 1991)

Suggested Readings:

1. Rudar Datt, Sundaram,K.P.M., "Indian Economy", 2012, S. Chand & Co., New Delhi.
2. Jhingan, M.L. "The Economics of Development & Planning", 22nd Revised Edition, Konark Publications, New Delhi.
3. Sankaran S, "Indian Economy: Problems, Policies and Development", 1994, Margham Publication, Chennai.
4. RBI Bulletin, Pramit Chaudhury, The Indian Economy, Poverty and Development, Vikas Publishing House, New Delhi.
5. Velayutham, "Foreign Trade, Theory & Practice", S. Chand & Co., New Delhi.

Note: Latest edition of text book may be used.

Course Outcomes:

Sr. No.	**On completion of this course, the students will be able to:**
CO1	Acquire understanding about various sectors of the Indian economy
CO2	Analyse various issues related to Indian Agriculture sector
CO3	Get an in-depth understanding about Indian Industrial sector, in general and small scaleand large scale Industries in particular
CO4	Get an overview of Agricultural Marketing and Agricultural Prices,
CO5	Acquire knowledge about Industrial Policy Resolutions

Khalsa College, Amritsar

An Autonomous College

Bachelor in Business Administration (Semester – I)

BBA-105

MANAGERIAL ECONOMICS- I

Credit hours /week: 4 **Max Marks: 50**
Total hours: 60 **Theory: 37 Marks**
Time: 3 Hours **Internal Assessment: 13 Marks**

Note: The question paper covering the entire course shall be divided into three sections.

Section A: It will have question No.1 consisting of 10 very short answer questions from the entire syllabus with answer to each question up to five lines in length. Students will attempt 9 questions. Each question will carry one mark; the total weightage being 9 **marks**.

Section B: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 2, 3, 4 and 5 will be set by the examiner from Part-I of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of this section shall be 14 marks.

Section C: It will consist of essay type/numerical questions with answer to each question up to five pages in length. Four questions numbering 6,7,8 and 9 will be set by the examiner from part-II of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of the section shall be 14 marks.

Course Objectives: To develop an advanced theoretical understanding of consumer behaviour and decision-making. To develop a theoretical understanding of strategic behaviour of economic agents. It will also help student to understand the links between household behavior and the economic models of demand. It will also help in understanding the efficiency and equity implications of market interference, including government policy.

Part – I

Theory of Demand: Meaning of demand and its types, Law of demand. Price elasticity of demand and its measurement.

Consumer's Behaviour: Utility approach: Brief outline of law of diminishing marginal utility and law of equi-marginal utility.

Indifference Curve Approach: Consumer equilibrium; Income, Price and Substitution effect, Revealed Preference Approach.

Theory of Supply: Concept and law of supply, factors affecting supply.

Part – II

Theory of Production: Law of variable proportion: total, average and marginal physical product, Law of Returns to scale, Economies and diseconomies of scale.

Theory of Cost: Short and Long period costs, Concept of total cost, Marginal and Average cost; Theory of cost in short-run and long-run. Concept of revenue: Total Revenue; Average Revenue; Relationship between Average and Marginal Revenue and Price elasticity of demand.

Pricing Under Various Market Conditions: Perfect Competition - Equilibrium of Firm and Industry under Perfect Competition, Monopoly - Price determination under Monopoly, Monopolistic Competition - Price and Output, determination under Monopolistic Competition.

Suggested Readings:

1. Koutosoyiannis, A., "Modern Micro Economics", Palgrave Macmillan.
2. Dwivedi, D.N.,"Microeconomics: Theory and Applications", Pearson Education, New Delhi.
3. Gravelle H., and Rees, R., "Microeconomics", Pearson Education, New Delhi.
4. Ahuja, H.L., "Advanced Economic theory; Microeconomic Analysis",

S. Chand & Company Ltd. New Delhi.

5. Mithani, D.M., "Managerial Economics", Himalaya Publishing House, New Delhi.

Note: The latest editions of the books should be followed.

Course Outcomes:

Sr. No.	**On the completion of the course ,Students will be able to:**
CO1	Understand the economic problems and correlate scarcity with the needs.
CO2	Evaluate demand and analyse costs in order to optimise cost production combinations.
CO3	Recognize the forms of existing markets, their features and determination of price which help them in taking appropriate decisions in business.

Khalsa College, Amritsar

An Autonomous College

Bachelor in Business Administration (Semester – II)

BBA-205

MANAGERIAL ECONOMICS-II

Credit hours /week: 4 **Max Marks: 50**
Total hours: 60 **Theory: 37 Marks**
Time: 3 Hours **Internal Assessment: 13 Marks**

Note: The question paper covering the entire course shall be divided into three sections.

Section A: It will have question No.1 consisting of 10 very short answer questions from the entire syllabus with answer to each question up to five lines in length. Students will attempt 9 questions. Each question will carry one mark; the total weightage being 9 marks.

Section B: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 2, 3, 4 and 5 will be set by the examiner from Part-I of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of this section shall be 14 marks.

Section C: It will consist of essay type/numerical questions with answer to each question up to five pages in length. Four questions numbering 6,7,8 and 9 will be set by the examiner from part-II of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of the section shall be 14 marks.

Course Objective: To provide a basis of understanding of macro economics concepts. To understand the functioning of economy at the macro level. To Understand how the economy is regulated through monetary and fiscal policies. To study the important indicators of the economy and their significance.

Part – I

Macroeconomics: Meaning, nature and scope. Basic concepts used: Stock and flow variables, static, comparative static and dynamic analysis.

National Income: Definition and Importance of National Income. Gross and Net Domestic Product; Personal Income and Disposable Income. Measurement of National Income: Income, Output and Expenditure Method, Problems in Measurement of National Income.

Consumption: Meaning, determinants (subjective and objective) and importance. Keynes psychological law of consumption.

Part – II

Investment: Types of investment, determinants of investment, marginal efficiency of capital, net present value, internal rate of return, interest rate determination, classical, neoclassical and Keynesian theories.

Multiplier: Static and Dynamic Analysis. Accelerator and super multiplier.

Inflation: Meaning, types and theories.

Suggested Readings:

1. Ackley, G., "Macroeconomics: Theory and Policy", Macmillan, New York.
2. Shapiro, E., "Macroeconomic Analysis", Galgotia Publication, New Delhi.
3. Gppdwin Neva, J. A. Nelson & J. Harris, "Macroeconomics in Context", PHI Learining Pvt. Ltd, New Delhi.
4. Dornbusch R., S. Ficher & R. Startz, "Macro Economics", Tata McGraw Hill Publishing Company Ltd., New Delhi.
5. Agarwal, Vanita, "Macroeconomics: Theory and Policy", Pearson Education, New Delhi.

Note: The latest editions of the books should be followed.

Course Outcomes:

Sr. No.	On the completion of the course Students will be able to:
CO1	Improve their way of thinking about problems, issues and decisions related to the economy as whole.
CO2	Become more efficient in dealing with the problems and opportunities related to developing as well as developed economies.
CO3	Understand the meaning and nature of managerial economics and also the theories of consumer choice
CO4	Understand meaning and nature of macroeconomics and the concept of inflation
CO5	Understand the various macro-economic indicators.

Khalsa College, Amritsar

An Autonomous College

Bachelor in Business Administration (Semester – III)

BBA-303

STATISTICS FOR BUSINESS

Credit hours /week: 4 **Max Marks: 50**
Total hours: 60 **Theory: 37 Marks**
Time: 3 Hours **Internal Assessment: 13 Marks**

Note: The question paper covering the entire course shall be divided into three sections.

Candidates are allowed to use non-scientific calculator .

Section A: It will have question No.1 consisting of 10 very short answer questions from the entire syllabus with answer to each question up to five lines in length. Students will attempt 9 questions. Each question will carry one mark; the total weightage being 9 marks.

Section B: It will consist of essay type/numerical questions up to five pages in length. Four questions numbering 2, 3, 4 and 5 will be set by the examiner from Part-I of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of this section shall be 14 marks.

Section C: It will consist of essay type/numerical questions with answer to each question up to five pages in length. Four questions numbering 6,7,8 and 9 will be set by the examiner from Part-II of the syllabus. The candidates will be required to attempt any two questions. Each question will carry 7 marks. The total weightage of the section shall be 14 marks.

Course Objective: Learn how to apply a particular statistical tool on the data and variables under consideration and apply various data types using various statistical techniques. To develop the students ability to deal with numerical and quantitative issues in business. To enable the use of statistical, graphical and algebraic techniques wherever relevant. To have a proper understanding of Statistical applications in Economics and Management.

Part-I

Matrix Algebra: Types of matrices; basic operations of matrices; determinant of a matrix and its properties; rank and inverse of a matrix; solution of simultaneous linear equations – Cramer's rule and matrix inversion, method, application of matrices. Introduction and Methods of Presentation of Statistical Information, Collection and Presentation of Data. Frequency distribution. Concept of sampling and sampling Designs.

Measures of Central Tendency:- Mean, Median, Mode, Measure of dispersion. Range quartile deviation, Average deviation and Standard deviation.

Part-II

Simple Correlation and Regression Analysis: Assumptions; Pearsons product moment and Spearmen's rank correlation method; least squares technique; properties of correlations and regression coefficients .

Time Series Analysis: Trend analysis using moving average and regression analysis, easonal, cyclic and regular fluctuations, Index number construction of unweighted and weighted index numbers, quantity Index.

Elementary Probability Theory: Deterministic and non–deterministic experiments; Different types of events; a priori and empirical definition of probability. Conditional probability, laws of addition and multiplication of probability. Properties of binomial, Poisson and normal distributions.

Suggested Readings:

1. Chiang A.C., "Fundamental Methods of Mathematical Economics", McGraw Hill, Kogakusha.
2. Hopfe, M.M., Mathematics – "Foundations for Business Science, Research Association".
3. Mizrahi, A. and Sullivan M., "Mathematics for Business and Social Sciences", John Wiley and Sons.
4. Raghawachari, M., "Mathematics for Management – An Introduction", Tata McGraw Hill, New Delhi.
5. Webber, J.E., "Mathematical Analysis: Business and Economic Applications", Harper & Row,
6. Yamuna, T., "Mathematics for Economics – An Elements Survey", Prentice Hall of India Pvt.Ltd., New Delhi.
7. Chou, Y. "Statistical Analysis", Holt, Rinehart and Winston, New York.
8. Croxton, F.E., Cowden, D.J. and Klien, S., "Applied General Statistics", Prentice Hall of India Pvt. Ltd.
9. Karmel, P.H. and Polar, K.M., "Applied Statistics for Economists", Pitman London.
10. Wetherill, G.B., "Elementary Statistical Methods", Chapman and Hall, London.

Note: The latest editions of the books should be followed.

Course Outcomes:

Sr. No.	**On the completion of the course, Students will be able to:**
CO1	Become familiar with various statistical and mathematical tools and techniques
CO2	Understand the applications of statistical techniques in the business world for increasing their work efficiency in corporate world.
CO3	Understand the application of Correlation and Regression Analysis and Probability Distributions: Binomial, Poisson and Normal Distribution.