

# FACULTY OF ARTS AND HUMANITIES

## SYLLABUS

FOR

2023 – 2026



## P.G. Department of Economics Khalsa College, Amritsar

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# **FACULTY OF ARTS AND HUMANITIES**

**SYLLABUS FOR 2023 - 2026**

**Programme Code: M.A (Eco)**

**Programme Name: M.A. (Economics)**

**(Semester I- II)**

**Examinations: 2023-2026**



**P.G. Department of Economics  
Khalsa College, Amritsar**

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**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 | Credits |   |   | Total Credits | Max. Marks |    |    |       | Page No. |
|-------------|---------------------------------------|------------|---------|---|---|---------------|------------|----|----|-------|----------|
|             |                                       |            | L       | T | P |               | Th         | Pr | IA | Total |          |
| MAE-101     | Micro Economics-I                     | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 6-7      |
| MAE-102     | Macro Economics-I                     | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 8-9      |
| MAE-103     | Quantitative Methods for Economists-I | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 10-11    |
| MAEO-4      | Money, Banking and Finance            | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 12-13    |
| MAEO-10     | Economics of Public Enterprises       | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 14-15    |

**SEMESTER – II**

| Course Code | Course Name                            | Hours/Week | Credits |   |   | Total Credits | Max. Marks |    |    |       | Page No. |
|-------------|--|------------|---------|---|---|---------------|------------|----|----|-------|----------|
|             |  |            | L       | T | P |               | Th         | Pr | IA | Total |          |
| MAE-201     | Micro Economics-II                     | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 16-17    |
| MAE-202     | Macro Economics-II                     | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 18-19    |
| MAE-203     | Quantitative Methods for Economists-II | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 20-21    |
| MAEO-9      | Economics of Agriculture               | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 22-23    |
| MAEO-12     | Operations Research                    | 6          | 4       | 2 | 0 | 6             | 75         | -  | 25 | 100   | 24-25    |

**KHALSA COLLEGE AMRITSAR**  
(An Autonomous College)

**M.A. (ECONOMICS) SEMESTER – I**

**MAE–101: Micro Economics–I**

**Credit Hours/ Week: 6**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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. Quandt (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.   |

**KHALSA COLLEGE AMRITSAR**  
(An Autonomous College)

**M.A. (ECONOMICS) SEMESTER – I**

**MAE–102: Macro Economics–I**

**Credit Hours/ Week: 6**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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. Dornbusch, 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**  
(An Autonomous College)  
**M.A. (ECONOMICS) SEMESTER – I**  
**MAE–103: Quantitative Methods for Economists–I**

**Credit Hours/ Week: 6**  
**Credits: 6**  
**L-T- P**  
**4 -2- 0**  
**Time: 3 Hours**

**Total Marks: 100**  
**Theory: 75 Marks**  
**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).
- (i) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
- (ii) 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**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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 of exchange; Cambridge cash balance approach. Keynesian 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. Lockett, D.G., (1976), Money and Banking, McGraw Hill, New York.
3. Ritter, L.S. and Sibley, 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- Institutions, 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 functions 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 |

**KHALSA COLLEGE, AMRITSAR**  
**(AN AUTONOMOUS COLLEGE)**  
**M.A. (ECONOMICS) SEMESTER – I**

**MAEO-10: Economics of Public Enterprises**

**Credit Hours/ Week: 6**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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:**

| <b>Sr. No.</b> | <b>On completing the course, the students will be able to:</b>  |
|----------------|---|
| 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**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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. Quandt (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**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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. Dornbusch, 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   |

**KHALSA COLLEGE AMRITSAR**  
(An Autonomous College)

**M.A. (ECONOMICS) SEMESTER – II**  
**MAE–203: Quantitative Methods for Economists–II**

**Credit Hours/ Week: 6**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
- (ii) 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:**

| <b>S. No</b> | <b>On completing the course, the students will be able to:</b>   |
|--------------|--|
| 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**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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 models of agriculture development, 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, peasant 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 and price elasticity of demand and supply, rationale for state intervention; 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:**

| <b>Sr. No.</b> | <b>On completing the course, the students will be able to:</b>   |
|----------------|--|
| 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**

**Credits: 6**

**L-T- P**

**4 -2- 0**

**Time: 3 Hours**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
- (ii) 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 and 2xm), Two persons zero sum games, 'n' persons zero sum games, Solution of Game problems with 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 that fail suddenly (Individual replacement policy and Group replacement policy) Project Scheduling by 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:**

| <b>Sr. No.</b> | <b>On completing the course, the students will be able to:</b>  |
|----------------|---|
| 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. |

# **FACULTY OF ARTS AND HUMANITIES**

## **SYLLABUS FOR 2023-26**

**Programme Code: B.Sc (Eco)**

**Programme Name: B.Sc (Economics)  
(Semester I-II)**

**Examinations: 2023-2026**



**P.G. Department of Economics**  
**Khalsa College, Amritsar**

**Note:** (a) Copy rights are reserved. Nobody is allowed to print it in any form.  
(b) Subject to change in the syllabi at any time.  
(c) Please visit the College website time to time.

| <b>S.No.</b> | <b>PROGRAMME OBJECTIVES</b>  |
|--------------|--|
| 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  |

| <b>S.No.</b> | <b>PROGRAMME SPECIFIC OUTCOMES (PSOS)</b>  |
|--------------|--|
| 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: B.Sc Economics**

**SEMESTER – I**

| Course Code                   | Course Name   | Hours/Week | Credits  |          |          | Total Credits | Max Marks |           |           |            | Page No.     |
|-------------------------------|---|------------|----------|----------|----------|---------------|-----------|-----------|-----------|------------|--------------|
|                               |   |            | L        | T        | P        |               | Th        | P         | IA        | Total      |              |
| <b>Major Courses</b>          |   |            |          |          |          |               |           |           |           |            |              |
| <b>BECO- 1120</b>             | <b>Micro Economics</b>  | <b>4</b>   | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b>      | <b>75</b> | <b>-</b>  | <b>25</b> | <b>100</b> | <b>32-33</b> |
| <b>BQT- 1121</b>              | <b>Quantitative Techniques–I</b>  | <b>4</b>   | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b>      | <b>75</b> | <b>-</b>  | <b>25</b> | <b>100</b> | <b>36-37</b> |
| <b>MAT-111A</b>               | <b>Algebra</b>  | <b>4</b>   | <b>3</b> | <b>1</b> | <b>0</b> | <b>4</b>      | <b>75</b> | <b>-</b>  | <b>50</b> | <b>100</b> | <b>40-41</b> |
| <b>MAT-111B</b>               | <b>Calculus and Trigonometry</b>  | <b>4</b>   | <b>3</b> | <b>1</b> | <b>0</b> | <b>4</b>      | <b>75</b> | <b>-</b>  |           | <b>100</b> | <b>42-43</b> |
| <b>CSC-111</b>                | <b>Computer Fundamental &amp; Information Technology (Theory)</b>         | <b>2</b>   | <b>2</b> | <b>0</b> | <b>0</b> | <b>4</b>      | <b>56</b> |           | <b>19</b> | <b>75</b>  | <b>48-49</b> |
| <b>CSC-111</b>                | <b>(Practical)</b>  | <b>4</b>   | <b>0</b> | <b>0</b> | <b>2</b> |               |           | <b>19</b> | <b>6</b>  | <b>25</b>  | <b>50</b>    |
| <b>Minor Courses (If Any)</b> |   |            |          |          |          |               |           |           |           |            |              |
|                               |   |            |          |          |          |               |           |           |           |            |              |
| <b>Compulsory Courses</b>     |   |            |          |          |          |               |           |           |           |            |              |
| <b>BENC-1105</b>              | <b>ENGLISH (Compulsory)</b>   | <b>4</b>   | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b>      | <b>75</b> | <b>-</b>  | <b>25</b> | <b>100</b> | <b>54-55</b> |
| <b>BPBI-1101</b>              | <b>Compulsory Punjabi (studied Punjabi upto 10<sup>th</sup> Standard)</b> | <b>4</b>   | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b>      | <b>75</b> | <b>-</b>  | <b>25</b> | <b>100</b> | <b>58-59</b> |
| <b>BPBI-1101</b>              | <b>Mudhli Punjabi (Not studied Punjabi upto 10<sup>th</sup> Standard)</b> | <b>4</b>   | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b>      | <b>75</b> | <b>-</b>  | <b>25</b> | <b>100</b> | <b>62-63</b> |

|                                    |   |          |          |          |          |          |           |          |           |            |              |
|------------------------------------|---|----------|----------|----------|----------|----------|-----------|----------|-----------|------------|--------------|
| <b>BPHC-1104</b>                   | <b>Punjab<br/>History and<br/>Culture<br/>(Not studied<br/>Punjabi upto<br/>10<sup>th</sup> Standard)</b> | <b>4</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>75</b> | <b>-</b> | <b>25</b> | <b>100</b> | <b>66-67</b> |
| <b>Ability Enhancement Courses</b> |   |          |          |          |          |          |           |          |           |            |              |
|                                    |   |          |          |          |          |          |           |          |           |            |              |
| <b>Value Added Courses</b>         |   |          |          |          |          |          |           |          |           |            |              |
| <b>ZDA111</b>                      | <b>Drug Abuse:<br/>Problems,<br/>Management<br/>and<br/>Prevention</b>                                    | <b>2</b> | <b>2</b> | <b>-</b> | <b>-</b> |          | <b>50</b> | <b>-</b> | <b>-</b>  | <b>50</b>  | <b>70-71</b> |

| <b>SEMESTER – II</b>          |   |                   |                |          |          |                      |                  |           |           |              |                 |
|-------------------------------|---|-------------------|----------------|----------|----------|----------------------|------------------|-----------|-----------|--------------|-----------------|
| <b>Course Code</b>            | <b>Course Name</b>  | <b>Hours/Week</b> | <b>Credits</b> |          |          | <b>Total Credits</b> | <b>Max Marks</b> |           |           |              | <b>Page No.</b> |
|                               |   |                   | <b>L</b>       | <b>T</b> | <b>P</b> |                      | <b>Th</b>        | <b>P</b>  | <b>IA</b> | <b>Total</b> |                 |
| <b>Major Courses</b>          |   |                   |                |          |          |                      |                  |           |           |              |                 |
| <b>BECO- 1220</b>             | <b>Macro economics</b>  | <b>4</b>          | <b>4</b>       | <b>0</b> | <b>0</b> | <b>4</b>             | <b>75</b>        | <b>-</b>  | <b>25</b> | <b>100</b>   | <b>34-35</b>    |
| <b>BQT- 1221</b>              | <b>Quantitative Techniques–II</b>   | <b>4</b>          | <b>4</b>       | <b>0</b> | <b>0</b> | <b>4</b>             | <b>75</b>        | <b>-</b>  | <b>25</b> | <b>100</b>   | <b>38-39</b>    |
| <b>MAT-121A</b>               | <b>Calculus and Differential Equations</b>                                | <b>4</b>          | <b>3</b>       | <b>1</b> | <b>0</b> | <b>4</b>             | <b>75</b>        | <b>-</b>  | <b>50</b> | <b>100</b>   | <b>44-45</b>    |
| <b>MAT-121B</b>               | <b>Calculus</b>   | <b>4</b>          | <b>3</b>       | <b>1</b> | <b>0</b> | <b>4</b>             | <b>75</b>        | <b>-</b>  |           | <b>100</b>   | <b>46-47</b>    |
| <b>CSC-121</b>                | <b>Programming Using C (Theory)</b>                                       | <b>2</b>          | <b>2</b>       | <b>0</b> | <b>0</b> | <b>4</b>             | <b>56</b>        |           | <b>19</b> | <b>75</b>    | <b>51-52</b>    |
| <b>CSC-121</b>                | <b>Practical</b>  | <b>4</b>          | <b>0</b>       | <b>0</b> | <b>2</b> |                      |                  | <b>19</b> | <b>6</b>  | <b>25</b>    | <b>53</b>       |
| <b>Minor Courses (If Any)</b> |   |                   |                |          |          |                      |                  |           |           |              |                 |
|                               |   |                   |                |          |          |                      |                  |           |           |              |                 |
| <b>Compulsory Courses</b>     |   |                   |                |          |          |                      |                  |           |           |              |                 |
| <b>BENC-1205</b>              | <b>ENGLISH (Compulsory)</b>   | <b>4</b>          | <b>4</b>       | <b>0</b> | <b>0</b> | <b>4</b>             | <b>75</b>        | <b>-</b>  | <b>25</b> | <b>100</b>   | <b>56-57</b>    |
| <b>BPBI-1202</b>              | <b>Compulsory Punjabi (studied Punjabi upto 10<sup>th</sup> Standard)</b> | <b>4</b>          | <b>4</b>       | <b>0</b> | <b>0</b> | <b>4</b>             | <b>75</b>        | <b>-</b>  | <b>25</b> | <b>100</b>   | <b>60-61</b>    |

|                                    |   |          |          |          |          |          |           |          |           |            |              |
|------------------------------------|---|----------|----------|----------|----------|----------|-----------|----------|-----------|------------|--------------|
| <b>BPBI-1202</b>                   | <b>Mudhli<br/>Punjabi (Not<br/>studied Punjabi<br/>upto 10<sup>th</sup><br/>Standard)</b>             | <b>4</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>75</b> | <b>-</b> | <b>25</b> | <b>100</b> | <b>64-65</b> |
| <b>BPHC-1204</b>                   | <b>Punjab History<br/>and Culture<br/>(Not studied<br/>Punjabi upto 10<sup>th</sup><br/>Standard)</b> | <b>4</b> | <b>4</b> | <b>0</b> | <b>0</b> | <b>4</b> | <b>75</b> | <b>-</b> | <b>25</b> | <b>100</b> | <b>68-69</b> |
| <b>Ability Enhancement Courses</b> |   |          |          |          |          |          |           |          |           |            |              |
|                                    |   |          |          |          |          |          |           |          |           |            |              |
| <b>Value Added Courses</b>         |   |          |          |          |          |          |           |          |           |            |              |
| <b>ZDA121</b>                      | <b>Drug Abuse:<br/>Problems,<br/>Management<br/>and Prevention</b>                                    | <b>2</b> | <b>2</b> | <b>-</b> | <b>-</b> |          | <b>50</b> | <b>-</b> | <b>-</b>  | <b>50</b>  | <b>72-73</b> |

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

**B.A. /B.Sc. (Economics)**  
**SEMESTER-I**  
**ECONOMICS**  
**BECO- 1120: Micro Economics**

**Credits: 4**  
**L-T- P**  
**4 -0- 0**  
**Time: 3 Hours**

**Credit Hours :4**  
**Total Hours: 60**  
**Total Marks: 100**  
**Theory: 75 Marks**  
**Internal Assessment: 25 Marks**

**Note: Instructions for the Paper–Setters/Examiners:**

- (ii) 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).
- (i) Students will attempt 1 out of 2 questions from each of four units (15 marks each).

**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, loanable 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:**

| <b>S. No</b> | <b>On completing the course, the students will be able to:</b>                           |
|--------------|--|
| 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.A. /B.Sc. (Economics)**  
**SEMESTER-II**  
**ECONOMICS**  
**BECO- 1220: MACRO ECONOMICS**

**Credit Hours :4**

**Credits: 4**

**L-T- P**

**4 -0- 0**

**Time: 3 Hours**

**Total Hours: 60**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) 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 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-I**  
**QUANTITATIVE TECHNIQUES**  
**BQT- 1121: QUANTITATIVE TECHNIQUES-I**

**Credits: 4**  
**L-T- P**  
**4 -0- 0**  
**Time: 3 Hours**

**Credit Hours :4**  
**Total Hours: 60**  
**Total Marks: 100**  
**Theory: 75 Marks**  
**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).
- (i) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
- (ii) 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:**

| <b>S. No</b> | <b>On completing the course, the students will be able to:</b>  |
|--------------|---|
| 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**  
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**B.A. /B.Sc. (Semester System) (12+3 System of Education)**  
**B.Sc. (Economics)**  
**SEMESTER-II**  
**QUANTITATIVE TECHNIQUES**  
**BQT- 1221: QUANTITATIVE TECHNIQUES-II**

**Credits: 4**

**L-T- P**

**4 -0- 0**

**Time: 3 Hours**

**Credit Hours :4**

**Total Hours: 60**

**Total Marks: 100**

**Theory: 75 Marks**

**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).
- (i) Students will attempt 1 out of 2 questions from each of four units (15 marks each).
- (ii) 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.

# Khalsa College Amritsar

(An Autonomous  
College)

Syllabus for

PROGRAMME: B.Sc.(Eco.)/B.Sc.(C.S.)/B.Sc.(N.M.)

SEMESTER-I

MATHEMATICS

COURSE CODE: MAT-111A

COURSE TITLE: Algebra

Credit Hours : 4

Total Hours: 60

Total Marks: 100

Theory: 75 Marks

Internal Assessment: 25 Marks

Credits: 4

L-T- P

3-1- 0

Time: 3 Hours

## INSTRUCTIONS FOR THE PAPER SETTERS:

1. The question paper will consist of five sections namely Section-A which will be from entire syllabus (equally distributed from each unit), Section-B, C, D and E from Unit-I, II, III and IV, respectively.
2. Section-A will consists of eight short answer type questions, each of 2.5 marks. Students are to attempt any six.
3. Sections-B, C, D & E will consist of two questions each (each question should be subdivided into at most two parts). Students are to attempt any four questions in total by selecting one question from each section. Each question carries 15 marks.
4. Teaching time for this paper would be six periods per week.

## COURSE OBJECTIVES:

- Students will be able to solve problems based on matrix algebra, vector spaces, eigen values and eigen vectors, Cardon's and Descarte's methods of solving a system of equations and inequalities.

## COURSE CONTENT:

### Unit-I

Linear independence of row and column vectors. Row rank, Column rank of a matrix, Equivalence of column and row ranks, Nullity of a matrix, Applications of matrices to a system of linear (both homogeneous and non-homogeneous) equations. Theorems on consistency of a system of linear equations.

### Unit-II

Eigen values, Eigen vectors, minimal and the characteristic equation of a matrix. Cayley Hamilton theorem and its use in finding inverse of a matrix. Quadratic Forms, quadratic form as a product of matrices. The set of quadratic forms over a field.

### Unit-III

Congruence of quadratic forms and matrices. Congruent transformations of matrices. Elementary congruent transformations. Congruent reduction of a symmetric matrix. Matrix Congruence of skew-symmetric matrices. Reduction in the real field. Classification of real quadratic forms in variables. Definite, semi-definite and indefinite real quadratic forms. Characteristic properties of definite, semi-definite and indefinite forms.

### Unit-IV

Relations between the roots and coefficients of general polynomial equation in one variable. Transformation of equations and symmetric function of roots, Descarte's rule of signs, Newton's Method of divisors, Solution of cubic equations by Cardan method, Solution of biquadratic equations by Descarte's and Ferrari's Methods.



**BOOKS PRESCRIBED:**

1. K.B. Dutta: Matrix and Linear Algebra, Prentice Hall of India Pvt. Ltd., New Delhi (2002).
2. H.S. Hall and S.R. Knight: Higher Algebra, H.M. Publications, 1994.
3. Chandrika Parsad: Text book on Algebra and Theory of Equations, Pothishala Pvt. Ltd., Allahabad.

**COURSE OUTCOMES:**

**On completing the course, the students will be able to:**

- solve problems based on matrices, vector spaces, eigen values and eigen vectors,
- recognize consistency and inconsistency of linear equations.
- Understand the relation between roots and coefficients.

**Khalsa College Amritsar**  
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**Syllabus for**  
**PROGRAMME: B.Sc.(Eco.)/B.Sc.(C.S.)/B.Sc.(N.M.)**  
**SEMESTER-I**  
**MATHEMATICS**  
**COURSE CODE: MAT-111B**  
**COURSE TITLE: Calculus and Trigonometry**

**Credits: 4**

**L-T- P**

**3-1- 0**

**Time: 3 Hours**

**Credit Hours : 4**

**Total Hours: 60**

**Total Marks: 100**

**Theory: 75 Marks**

**Internal Assessment: 25 Marks**

**INSTRUCTIONS FOR THE PAPER SETTERS:**

1. The question paper will consist of five sections namely Section-A which will be from entire syllabus (equally distributed from each unit), Section-B, C, D and E from Unit-I, II, III and IV, respectively.
2. Section-A will consist of eight short answer type questions, each of 2.5 marks. Students are to attempt any six.
3. Sections-B, C, D & E will consist of two questions each (**each question should be subdivided into at most two parts**). Students are to attempt any four questions in total by selecting one question from each section. Each question carries 15 marks.
4. Teaching time for this paper would be six periods per week.

**COURSE OBJECTIVES:**

- Calculus has widespread applications in science, economics, and engineering and can solve many problems for which algebra alone is insufficient.
- Trigonometry is a branch of mathematics that studies relationships between side lengths and angles of triangles.
- Students will apply calculus and Trigonometry in areas such as geodesy, surveying, celestial mechanics, and navigation.
- Students will learn relationships to other branches of mathematics, in particular complex numbers, infinite series, logarithms and calculus.

**COURSE CONTENT:**

**Unit-I**

Real number system and its properties, lub, glb of sets of real numbers, limit of a function, Basic properties of limits, Continuous functions and classification of discontinuities, Uniform continuity.

**Unit-II**

Differentiation of hyperbolic functions, Successive differentiation, Leibnitz theorem, Taylor's and Maclaurin's theorem with various forms of remainders, Indeterminate forms.

**Unit-III**

De-Moivre's Theorem and its applications, circular and hyperbolic functions and their inverses.

**Unit-IV**

Exponential and Logarithmic function of complex numbers, Expansion of trigonometric functions, Gregory's series, Summation of series.

**BOOKS PRESCRIBED:**

1. N. Piskunov: Differential and Integral Calculus, Peace Publishers, Moscow.
2. Gorakh Prasad: Differential Calculus, Pothishala Pvt. Ltd., Allahabad.
3. Erwin Kreyszig: Advanced Engineering Mathematics, John Wiley and Sons, 1999.
4. Shanti Narayan and P.K. Mittal: Differential Calculus, S Chand & Company.
5. Shanti Narayan and P.K. Mittal: Real Analysis, S Chand & Company.
6. Rajinder Pal Kaur: Calculus, First world Publication, Ludhiana.

**COURSE OUTCOMES: On completing the course, the students will be able to:**

- understand the relationships between side lengths and angles of triangles.
- understand Calculus as a major part of contemporary mathematics education.
- Have knowledge in applications in science, economics, and engineering and students can solve many problems for which algebra alone is insufficient.
  - Calculate the limit and examine the continuity of a function at a point.
- Develop intricate relationships to other branches of mathematics, in particular complex numbers, infinite series, logarithms and calculus.

**Khalsa College Amritsar**  
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Syllabus for  
**PROGRAMME: B.Sc.(Eco.)/B.Sc.(C.S.)/B.Sc.(N.M.)**  
SEMESTER-II  
**MATHEMATICS**  
**COURSE CODE: MAT-121A**  
**COURSE TITLE: Calculus and differential equations**

**CREDIT HOURS(PER WEEK) : 4**

**TOTAL HOURS: 60 HRS**

**MAXIMUM MARKS: 100**

**Medium: English**

**(Theory Marks: 75**

**Internal Assessment: 25)**

**Time: 3 Hours**

**INSTRUCTIONS FOR THE PAPER SETTERS:**

1. The question paper will consist of five sections namely Section-A which will be from entire syllabus (equally distributed from each unit), Section-B, C, D and E from Unit-I, II, III and IV, respectively.
2. Section-A will consist of eight short answer type questions, each of 2.5 marks. Students are to attempt any six.
3. Sections-B, C, D & E will consist of two questions each (**each question should be subdivided into atmost two parts**). Students are to attempt any four questions in total by selecting one question from each section. Each question carries 15 marks.
4. Teaching time for this paper would be six periods per week.

**COURSE OBJECTIVES:**

- Calculus is a branch of mathematics focused on limits, functions, derivatives, integrals, and infinite series.
- This subject constitutes a major part of contemporary mathematics education. Calculus has widespread applications in science, economics, and engineering and can solve many problems for which algebra alone is insufficient.
- A differential equation is a mathematical equation that relates some function with its derivatives.
- In applications, the functions generally represent physical quantities, the derivatives represent their rates of change, and the differential equation defines a relationship between the two. Differential equations have applications in fields of engineering, physics, economics, and biology.

**COURSE CONTENT:**

**Unit-I**

Asymptotes, Tests for concavity and convexity, Points of inflexion, Multiple Points, Curvature, Tracing of Curves (Cartesian and Parametric coordinates only).

**Unit-II**

Integration of hyperbolic functions. Reduction formulae. Definite integrals. Fundamental theorem of integral calculus. Quadrature, rectification.

### **Unit-III**

Exact differential equations. First order and higher degree equations solvable for  $x, y, p$ . Clairaut's Form and singular solutions. Geometrical meaning of a differential equation. Orthogonal Trajectories.

### **Unit-IV**

Linear differential equations with constant and variable coefficients. Variation of Parameters method, reduction method, series solutions of differential equations. Power series Method, Bessel and Legendre equations (only series solution).

#### **BOOKS PRESCRIBED:**

1. D.A. Murray: Introductory Course in Differential Equations. Orient Longman (India), 1967.
2. G.F. Simmons: Differential Equations, Tata McGraw Hill, 1972.
3. E.A. Codington: An Introduction to Ordinary Differential Equations, Prentice Hall of India, 1961.
4. Gorakh Prasad: Integral Calculus, Pothishala Pvt. Ltd., Allahabad.
5. Erwin Kreyszig: Advanced Engineering Mathematics, John Wiley and Sons, 1999.
6. Shanti Narayan and P.K. Mittal: Integral Calculus, S Chand & Company

#### **COURSE OUTCOMES: On completing the course, the students will be able to:**

- acquaint with the limits, functions, derivatives, integrals, and infinite series.
- associate Differential equations with the Mathematical modeling.
- solve multifarious differential equation that relates functions with its derivatives.
- know about concavity and convexity of the functions, Asymptotes and multiple points of a curve.
- Have knowledge about applications in fields of engineering, physics, economics, and biology.

# **Khalsa College Amritsar**

(An Autonomous College)

Syllabus for

**PROGRAMME: B.Sc.(Eco.)/B.Sc.(C.S.)/B.Sc.(N.M.)**

**SEMESTER-II**

**MATHEMATICS**

**COURSECODE:MAT-121B**

**COURSE TITLE: Calculus**

**CREDIT HOURS (PER WEEK) : 4**

**TOTAL HOURS: 60 hrs.**

**MAXIMUM MARKS: 100**

**(THEORY: 75**

**INTERNAL ASSESSMENT: 25)**

**TIME: 3Hrs**

**MEDIUM: English**

1. The question paper will consist of five sections namely Section-A which will be from entire syllabus (equally distributed from each unit), Section-B, C, D and E from Unit-I, II, III and IV, respectively.
2. Section-A will consists of eight short answer type questions, each of 2.5 marks. Students are to attempt any six.
3. Sections-B, C, D& E will consist of two questions each (**each question should be subdivided into atmost two parts**). Students are to attempt any four questions in total by selecting one question from each section. Each question carries 15 marks.
4. Teaching time for this paper would be six periods per week.

## **COURSE OBJECTIVES:**

- This course introduces the concept of partial derivatives which are used in fields such as computer graphics, physical sciences, vector calculus and engineering.
- Evaluate double and triple integrals of functions of several variables. Apply them in evaluating area and volume of solids.
- This course covers the concepts of jacobians, maxima and minima of functions of two variables, envelopes and evolutes.

## **COURSE CONTENT:**

### **Unit-I**

Limit and Continuity of functions of two variables, Partial differentiation, Change of variables, Partial derivatives and differentiability of real-valued functions of two variables, Schwartz's and Young's Theorem, Statements of Inverse and implicit function theorems and applications.

### **Unit-II**

Euler's theorem on homogeneous functions, Taylor's theorem for functions of two variables, Jacobians, Envelopes. Evolutes, Maxima, Minima and saddle points of functions of two Variables.

### **Unit-III**

Lagrange's undetermined multiplier method. Double and Triple Integrals, Change of variables, Change of order of integration in double integrals.

### **Unit-IV**

Applications to evaluation of Areas, Volumes, Surfaces of solid of revolution.

**BOOKS PRESCRIBED:**

1. Narayan, S. & **Mittal**, P.K. : Integral Calculus, S. Chand & Co.
2. Kreyszig, E.: Advanced Engineering Mathematics.
3. Narayan S. & Mittal, P.K. : Differential Calculus, S. Chand & Co.

**COURSE OUTCOMES: On completing the course, the students will be able to:**

- apply Calculus in various fields such as computer graphics, physical sciences, economics and engineering.
- use Calculus in oceanography to calculate the height of tides in oceans.
- understand concept of partial derivatives which are used in fields such as computer graphics, physical sciences, vector calculus and engineering.
- learn about evaluating double and triple integrals of functions of several variables and apply them in evaluating area and volume of solids.
- Understand the concepts of jacobians, maxima and minima of functions of two variables, envelopes and evolutes.

# **Khalsa College Amritsar**

(An Autonomous College)

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

**SEMESTER-I**

**COMPUTER SCIENCE**

**CSC-111: COMPUTER FUNDAMENTAL & INFORMATION TECHNOLOGY**

**(Theory)**

**Time: 3 Hours**

**Credit Hours (per week):04**

**Total Marks: 100**

**Theory Marks: 56**

**Theory Internal Assessment: 19**

**Practical Marks: 19**

**Practical Internal Assessment: 06**

**Note for paper setter and students:**

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 12 marks consisting of 8 short answer type questions carrying 2 marks each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 11 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

**Course Objectives:**

- 1. This course will familiarise students with basics of computer, its components.**
- 2. Students will learn various peripheral devices.**
- 3. Student will understand different kind of operating systems, networks and role of information systems.**

## **UNIT-I**

**Introduction to computer and its uses:** Definition of Computer, functional Units and their interrelation, communication with the computer, Milestones in Hardware and Software, Batch oriented/Online/Real time application.

**Data storage devices and media:** Primary storage, Secondary storage, Removable Data Storage Devices, Data organization in Storage Media, Compact Disc, DVD, Blu-ray Disc, Cloud Storage.

**Input/output Devices:** Keyboard, Mouse, Source Data Automation (MICR, OMR, and OCR), Screen Assisted Data Entry, Portable Hand held Terminals for data collection, Monitors, Printers, Plotters, SD Cards (Secure Digital), Solid State drives (SSD).

## **UNIT-II**

**Computer Viruses:** Definition, Types of viruses, use of Antivirus software

**Spreadsheet:** Spreadsheet overview, Editing, Formatting, Creating formulas, Graphs.

## **UNIT-III**

**Data & Network Communication:** Twisted pair, Coaxial, Fibre optics, Wireless (Line of Sight & Satellite), Network Advantages, Types & Topologies, Communication using Network protocol/Network Interface card (NP/NIC), Modems

**Types of Operating Systems:** Multiuser, Multitasking & Multiprogramming and their examples.



## UNIT-IV

### Information Systems

Introduction to IT & its components, Definition of Information systems, Computer based information systems, Management Information System, Decision Support System, Expert System, Functional Information System, Open Information System, Transaction Processing System.

System Development Process and System development Tools.

**Internet Basics:** Its uses and Applications.

### References:

1. R.K. Taxali, Introduction to Software Packages, Golgotha Publications.
2. Introduction to Computer by P.K. Sinha
3. Windows Based Computer Courses by Gurvinder Singh & Rachpal Singh.
4. Peter Norton, Introduction to Computers, Glencoe, Macmillan/McGraw Hill. Kroenke, Business Computer System, McGraw Hill.
5. Patric, G.Mckeown, Living with the Computers, 2nd edition, HBT Publishers, USA.
6. Hussain & Hussain, Computer Technology, Applications & Social Implications, PHI.
7. MS-Office compiled by SYBIX
8. MS-Office BPB Publications.

## (PRACTICAL)

### COMPUTER FUNDAMENTAL & INFORMATION TECHNOLOGY

#### **Working of Internet:**

Internet and its applications, Internet evolution, Working of Internet, Use of Internet, Overview of World Wide Web (Web Server and Client), Search engine, Uploading & Downloading files, Web Browsers, Working with E-mail.

#### **MS–Word 2010:**

Introduction to Word, Introduction to Parts of Word Window (Title Bar, Menu Bar, Tool Bar, The Ruler, Status Area), Page Setup, Creating New Documents, Saving Documents, Opening an Existing documents, insert a second document into an open document, Editing and formatting in document, Headers and Footers, Spell checking, Printing document, creating a Table Using the Table Menu and table formatting, Borders and Shading, Templates and Wizards, Mail Merge.

#### **MS Power Point 2010:**

Introduction to MS Power point, Power point elements, Templates, Wizards, Views, Exploring Power Point Menu, Working with Dialog Boxes, Adding Text, Adding Title, Moving Text Area, Resizing Text Boxes, Adding Art, starting a New Slide, Starting Slide Show, Saving presentation; Printing Slides, Views (View slide sorter view, notes view, outlines view), Formatting and enhancing text formatting, Creating Graphs (Displaying slide show and adding multi–media)

#### **Spreadsheet:**

Spreadsheet overview, Editing, Formatting, Creating formulas, Graphs.

Any Open-Source Software like Apache Open Office, Libre Office, Google Docs or Microsoft Office may be used.

#### **Course Outcomes:**

Upon completion of the course, the students will be able to:

- CO-1.** Bridge the fundamental concepts of computers with the present knowledge of the students.
- CO-2.** Familiarise operating systems, peripheral devices, networking and internet.
- CO-3.** Identify the hardware and software concepts, input and output Units' components of a computer system
- CO-4.** Demonstrate different communication medias
- CO-5.** Learn Information systems, System development life cycle, Tools and its Applications.

**Khalsa College Amritsar**  
(An Autonomous College)  
**B.A. /B.Sc. (Eco.) (Semester System) (12+3 System of Education)**  
**SEMESTER-II**  
**COMPUTER SCIENCE**  
**CSC-121: PROGRAMMING USING C**  
(Theory)

**Time: 3 Hours**

**Credit Hours (per week):04**

**Total Marks: 100**

**Theory Marks: 56**

**Theory Internal Assessment M: 19**

**Practical Marks: 19**

**Practical Internal Assessment M: 06**

**Note for paper setter and students:**

- 1. Medium of Examination is English Language.**
- 2. There will be five sections.**
- 3. Section A is compulsory and will be of 12 marks consisting of 8 short answer type questions carrying 2 marks each covering the whole syllabus. The answer should not exceed 50 words. The students will have to attempt any 6 questions in this section.**
- 4. Sections B, C, D and E will be set from units I, II, III & IV respectively and will consist of two questions of 11 marks each from the respective unit. The students are required to attempt one question from each of these sections.**

**Course Objectives:**

- 1. The course is designed to provide complete knowledge of C language.**
- 2. To become familiar with the grammar and semantics of the C programming language.**
- 3. Students will be able to develop logics which will help them to create programs, applications in C.**
- 4. Also, by learning the basic programming constructs they can easily switch over to any other language in future.**

**UNIT-I**

Data Representation, Introduction to Number Systems and Character Codes, Flow Charts, Problem Analysis, decision tables, pseudo codes and algorithms.

**Programming Language C**

**Basics of C:** Introduction to C, Applications and Advantages of C, Tokens, Types of Errors

**Data Types:** Basic & Derived Data Types, User Defined Data Types, Declaring and initializing variables.

**UNIT-II**

**Operators and Expressions:** Types of operators (Unary, Binary, Ternary), Precedence and Associativity

**Data I/O Functions:** Types of I/O function, Formatted & Unformatted console I/O Functions

**Control Statements:** Jumping, Branching and Looping–Entry controlled and exit controlled, Advantages/Disadvantages of loops, difference between for, while and do–while.

### UNIT-III

**Arrays:** Types of Arrays, One Dimensional and Two-Dimensional Array.

**Strings:** Introduction to Strings and String functions, Array of Strings.

**Functions:** User Defined & Library Function, Function (Prototype, Declaration, Definition), Methods of passing arguments, local and global functions, Recursion.

**Storage Classes:** Introduction to various storage classes, scope and lifetime of a variable, Storage class specifiers (auto, register, static, extern), advantages and disadvantages.

### UNIT-IV

**Structure and Union:** Introduction to structure and union, pointers with structure

**Pointers:** Understanding Pointers, pointer declaration and Initialization, operation on pointers, passing pointer to a function, pointer and one-dimensional arrays.

**File Handling:** Opening and closing of files, different modes (Reading and writing).

### References:

- (i) Programming with C Languages C, Schaum Series.
- (ii) Yashwant Kanetkar , Let Us C
- (iii) C Programming by Stephen G Kochan

**(PRACTICAL)**  
**Practical based on Programming in C**

**Course Outcomes:**

Upon completion of this course, the students will be able to:

- CO-1.** Use the fundamentals of C programming in trivial problem solving
- CO-2.** Identify solution to a problem and apply control structures and user defined functions for solving the problem
- CO-3.** Demonstrate the use of Strings and string handling functions
- CO-4.** Work with arrays of complex objects.
- CO-5.** Apply skill of identifying appropriate programming constructs for problem solving.

# Khalsa College Amritsar

(An Autonomous College)

SEMESTER – I

ENGLISH (COMPULSORY)

B.A./B.Com/B.Sc (Med/N. Med/C. Sc./Eco)/ BBA/BA (Social Science) B.Com (Hons.)

Code: BENC-1105

| L | T | P | Credits |
|---|---|---|---------|
| 4 | 0 | 0 | 4       |

Time: 3 Hours

Max. Marks: 100

Theory: 75

Internal Assessment: 25

## Instructions for the Paper Setter and Distribution of Marks:

The question paper will consist of four sections and the distribution of marks will be as under:

Section A: 15 Marks

Section B: 20 Marks

Section C: 20 Marks

Section D: 20 Marks

### Section–A

1. Twenty (20) Questions on the usage of grammar related to the prescribed units of *Murphy's English Grammar* will be set. The students will be required to attempt any Fifteen (15)

(15X1= 15 Marks)

### Section–B

2. EIGHT (8) questions (four from each literary text) on theme, characterization, tone and style etc. will be set. The students will be required to attempt any Five (5) questions, choosing at least TWO from each prescribed text. The fifth question may be attempted from any prescribed text. The answer to each question should not exceed 15-20 sentences.

(5X4=20 Marks)

### Section–C

3. One question with internal choice, from *Tales of Life*, will be set. (1X8 =8 Marks)
4. One question with internal choice, from *Prose for Young Learners*, will be set. (1X8 =8 Marks)
5. Six(6) words on vocabulary will be set from the prescribed texts. The students will be required to answer any Four(4). (4X1= 4 Marks)

### Section-D

6. A question requiring the students to write a Paragraph on ONE of the TWO given topics. (1X6 = 6 marks)
7. A question requiring the students to write an APPLICATION to the Head of an

educational institution on ONE of the TWO given Topics.

(1X8=8 Marks)

8. Eight(8) Isolated Sentences on Translation from English to Vernacular (Punjabi/Hindi) will be set. The Students will be required to attempt any Six(6).

(6X1= 6 Marks)

**Course Objectives:**

1. To read, interpret and write about a diverse range of texts in English.
2. To understand the prescribed texts analytically and critically.
3. To familiarise the students with the social, political, moral and cultural background of the prescribed texts.
4. To participate in the critical and cultural discourses of English.
5. To teach language and literature effectively with the support of ICT tools.
6. To become competent, committed, conscious, creative, and compassionate human beings.

**Course Contents:**

- 1) Stories at Sr. No. 1,2,3,5,6 from *Tales of Life*.
- 2) Essays at Sr. No. 1,2,3,5,6 from *Prose for Young Learners*.
- 3) Unit 1-25 from *Murphy's English Grammar*.

**Texts Prescribed:**

1. *Tales of Life* (Guru Nanak Dev University, Amritsar)
2. *Prose for Young Learners* (Guru Nanak Dev University, Amritsar)
3. *Murphy's English Grammar 4<sup>th</sup> Edition*(by Raymond Murphy) CUP

**Course Outcomes:**

The completion of this course enables students to:

1. appreciate the writings of various Indian and foreign story and prose writers and relate them to their socio-cultural milieu.
2. comprehend the meaning of texts and answer questions related to situations, episodes, themes and characters depicted in them.
3. understand fundamental grammatical rules governing tenses and make correct usage in their language.
4. write paragraphs on any given topic.

# Khalsa College Amritsar

(An Autonomous College)

SEMESTER – II

ENGLISH (COMPULSORY)

B.A./B.Com/B.Sc (Med/N. Med/C. Sc./Eco)/ BBA/BA( Social Science) B.Com(Hons.)

Code: BENC-1205

| L | T | P | Credits |
|---|---|---|---------|
| 4 | 0 | 0 | 4       |

Time: 3 Hours

Max. Marks: 100

Theory: 75

Internal Assessment: 25

## Instructions for the Paper Setter and Distribution of Marks:

The question paper will consist of four sections and the distribution of marks will be as under:

Section A: 15 Marks

Section B: 20 Marks

Section C: 20 Marks

Section D: 20 Marks

### Section–A

1. **Twenty (20)** Questions on the usage of grammar related to the prescribed units of *Murphy's English Grammar* will be set. The students will be required to attempt any **Fifteen(15)**.

(15X1= 15 Marks)

### Section–B

2. **EIGHT (8)** questions (four from each literary text) on theme, characterization, tone and style etc. will be set. The students will be required to attempt **any Five** questions, choosing at least **TWO** from each prescribed text. The fifth question may be attempted from any prescribed text. The answer to each question should not exceed 15-20 sentences.

(5X4=20 Marks)

### Section–C

3. **One** question with internal choice, from *Tales of Life*, will be set.

(1X8 =8 Marks)

4. **One** question with internal choice, from *Prose for Young Learners*, will be set.

(1X8 =8 Marks)

5. **Six(6)** words on vocabulary will be set from the prescribed texts. The students will be required to answer any **Four(4)**.

(4X1= 4 Marks)

### Section-D

6. The students will be required to answer **Six** questions from the **Comprehension Passage** set from the book *Prose for Young Learners*.

(6X1=6 Marks)



7. The students will be required to write an **Official Letter** on any ONE of the TWO given topics.

(1X8= 8 Marks)

8. The students will be required to write an **e-mail** on any ONE out of the TWO Topics.

(1X6= 6 Marks)

### **Course Objectives:**

1. To read, interpret and write about a diverse range of texts in English.
2. To understand the prescribed texts analytically and critically.
3. To familiarise the students with the social, political, moral and cultural background of the prescribed texts.
4. To participate in the critical and cultural discourses of English.
5. To teach language and literature effectively with the support of ICT tools.
6. To become competent, committed, conscious, creative, and compassionate human beings.

### **Course Contents**

- 1) Stories at Sr.No.7, 9,10,11,12 from *Tales of Life*.
- 2) Essays at Sr.No.7, 8, 9, 10,11 from *Prose for Young Learners*.
- 3) Unit 26-48 from *Murphy's English Grammar*.

### **Texts Prescribed:**

1. *Tales of Life* (Guru Nanak Dev University, Amritsar)
2. *Prose for Young Learners* (Guru Nanak Dev University, Amritsar)
3. *Murphy's English Grammar 4<sup>th</sup> Edition* (by Raymond Murphy) CUP

### **Course Outcomes:**

The completion of this course enables students to:

1. appreciate the writings of various Indian and foreign story and prose writers and relate them to their socio-cultural milieu.
2. comprehend the meaning of texts and answer questions related to situations, episodes, themes and characters depicted in them.
3. make correct usage of tenses, articles and nouns.
4. enrich their vocabulary and use new words in their spoken and written language.
5. write personal letters to their family and friends on various issues.

## Khalsa College Amritsar

(An Autonomous College)

**B. A., B. A. Social Science, B. Sc. Medical, B. Sc. Non-Medical,  
B. Com. (Hons.), B. Com. (R), BBA, B. Sc. Economics, B. Sc. Computer Science**

**Semester-I**

Compulsory Course

**ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ**

### Credit & Marks Distribution, Eligibility and Pre-Requisites of the Course

| Course title & Code        | Total Teaching Hours | Total Credits/ Hours per week | Credit distribution |   |   | Total Marks 100 |    | Time Allowed in Exam | Eligibility criteria          | Pre-requisite of the course (if any)   |
|----------------------------|----------------------|-------------------------------|---------------------|---|---|-----------------|----|----------------------|-------------------------------|--|
|                            |                      |                               | L                   | T | P | Theory          | IA |                      |                               |  |
| ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ<br>BPBI-1101 | 60                   | 4                             | 4                   | 0 | 0 | 75              | 25 | 3 Hours              | Class 12th pass in any stream | Studied Punjabi up to 10th Standard or working knowledge of Punjabi Language |

#### ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective

- ਵਿਦਿਆਰਥੀਆਂ ਵਿਚ ਸਾਹਿਤਕ ਰੁਚੀਆਂ ਪੈਦਾ ਕਰਨਾ।
- ਆਲੋਚਨਾਤਮਕ ਰੁਚੀਆਂ ਵਿਕਸਤ ਕਰਨਾ।
- ਵਿਦਿਆਰਥੀ ਦਾ ਹੋਰ ਵਿਸ਼ਿਆਂ ਸੰਬੰਧੀ ਬੋਧ ਵਿਕਸਿਤ ਕਰਨਾ।
- ਭਾਸ਼ਾਈ ਨੇਮਾਂ ਦੀ ਸਮਝ ਨੂੰ ਵਿਕਸਤ ਕਰਨਾ।

#### ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)

- ਵਿਦਿਆਰਥੀ ਵਿਚ ਸਾਹਿਤਕ ਰੁਚੀਆਂ ਵਿਕਸਤ ਹੋਣਗੀਆਂ।
- ਵਿਦਿਆਰਥੀ ਦੀ ਸਾਹਿਤ ਸਿਰਜਣਾ ਦੀ ਸੰਭਾਵਨਾ ਵਧੇਗੀ।
- ਵਿਦਿਆਰਥੀ ਹੋਰ ਵਿਸ਼ਿਆਂ ਦਾ ਗਹਿਨ ਅਧਿਐਨ ਕਰਨ ਦੇ ਕਾਬਲ ਹੋਵੇਗਾ।
- ਵਿਦਿਆਰਥੀ ਭਾਸ਼ਾ ਦੇ ਵਿਆਕਰਨਿਕ ਪ੍ਰਬੰਧ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ।

#### ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 1.5-1.5 (ਡੇਢ-ਡੇਢ) ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ (Objective Type) 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਸਿਲੇਬਸ ਦੇ ਬਾਕੀ ਚਾਰ ਭਾਗਾਂ ਵਿਚ 02-02 ਲੇਖ ਨੁਮਾ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਹਰੇਕ ਭਾਗ ਵਿਚੋਂ 01-01 ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੋਵੇਗਾ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 15 ਅੰਕ ਹੋਣਗੇ। ਪੇਪਰ ਸੈੱਟਰ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

**ਨੋਟ:** ਇੰਟਰਨਲ ਅਸੈੱਸਮੈਂਟ 25 ਅੰਕਾਂ ਦੀ ਹੈ। ਇਸ ਪੇਪਰ ਦੇ ਕੁੱਲ ਅੰਕ 75+25=100 ਹਨ।

#### ਪਾਠ-ਕ੍ਰਮ

#### ਭਾਗ-ਪਹਿਲਾ

**ਸਾਹਿਤ ਦੇ ਰੰਗ,** ਡਾ. ਮਹਿਲ ਸਿੰਘ (ਸੰਪਾ.), ਰਵੀ ਸਾਹਿਤ ਪ੍ਰਕਾਸ਼ਨ, ਅੰਮ੍ਰਿਤਸਰ।

ਭਾਗ ਪਹਿਲਾ - ਕਵਿਤਾ ਅਤੇ ਕਹਾਣੀ, ਡਾ. ਮਹਿਲ ਸਿੰਘ ਅਤੇ ਡਾ. ਆਤਮ ਰੰਧਾਵਾ (ਸਹਿ ਸੰਪਾ.)

(ਕਵਿਤਾ ਭਾਗ ਵਿਚੋਂ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ/ਕਵਿਤਾ ਦਾ ਵਿਸ਼ਾ-ਵਸਤੂ। ਕਹਾਣੀ ਭਾਗ ਵਿਚੋਂ ਸਾਰ/ਵਿਸ਼ਾ-ਵਸਤੂ)

#### ਭਾਗ-ਦੂਜਾ

**ਪੰਜਾਬ ਦੇ ਮਹਾਨ ਕਲਾਕਾਰ** (ਸੰਪਾ. ਬਲਵੰਤ ਗਾਰਗੀ)

ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।

(ਅੰਮ੍ਰਿਤਾ ਸ਼ੇਰਗਿੱਲ ਤੋਂ ਭਾਈ ਸਮੁੰਦ ਸਿੰਘ ਤਕ)

(ਵਿਸ਼ਾ-ਵਸਤੂ/ਸਾਰ/ਨਾਇਕ ਬਿੰਬ)

### **ਭਾਗ-ਤੀਜਾ**

- (ੳ) ਪੈਰੂਾ ਰਚਨਾ  
(ਅ) ਪੈਰੂਾ ਪੜ੍ਹ ਕੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ।

### **ਭਾਗ-ਚੌਥਾ**

- (ੳ) ਭਾਸ਼ਾ ਵੰਨਗੀਆਂ : ਭਾਸ਼ਾ ਦਾ ਟਕਸਾਲੀ ਰੂਪ, ਭਾਸ਼ਾ ਅਤੇ ਉਪ-ਭਾਸ਼ਾ ਦਾ ਅੰਤਰ,  
: ਪੰਜਾਬੀ ਉਪਭਾਸ਼ਾਵਾਂ ਦੇ ਪਛਾਣ-ਚਿੰਨ੍ਹ  
(ਅ) ਪੰਜਾਬੀ ਭਾਸ਼ਾ : ਨਿਕਾਸ ਤੇ ਵਿਕਾਸ।

# Khalsa College Amritsar

(An Autonomous College)

**B. A., B. A. Social Science, B. Sc. Medical, B. Sc. Non-Medical,  
B. Com. (Hons.), B. Com. (R), BBA, B. Sc. Economics, B. Sc. Computer Science**

**Semester-II**

Compulsory Course

**ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ**

Credit & Marks Distribution, Eligibility and Pre-Requisites of the Course

| Course title & Code               | Total Teaching Hours | Total Credits/ Hours per week | Credit distribution |   |   | Total Marks 100 |    | Time Allowed in Exam |
|-----------------------------------|----------------------|-------------------------------|---------------------|---|---|-----------------|----|----------------------|
|                                   |                      |                               | L                   | T | P | Theory          | IA |                      |
| ਲਾਜ਼ਮੀ ਪੰਜਾਬੀ<br><b>BPBI-1201</b> | 60                   | 4                             | 4                   | 0 | 0 | 75              | 25 | 3 Hours              |

### ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective

- ਵਿਦਿਆਰਥੀਆਂ ਵਿਚ ਸਾਹਿਤਕ ਰੁਚੀਆਂ ਪੈਦਾ ਕਰਨਾ।
- ਆਲੋਚਨਾਤਮਕ ਰੁਚੀਆਂ ਨੂੰ ਵਿਕਸਤ ਕਰਨਾ।
- ਵਿਦਿਆਰਥੀ ਨੂੰ ਦਫਤਰੀ ਅਤੇ ਘਰੇਲੂ ਚਿੱਠੀ ਪੱਤਰ ਤੋਂ ਜਾਣੂ ਕਰਵਾਉਣਾ।
- ਭਾਸ਼ਾਈ ਗਿਆਨ ਵਿਚ ਵਾਧਾ ਕਰਨਾ।

### ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)

- ਵਿਦਿਆਰਥੀ ਦਾ ਸਾਹਿਤਕ ਬੋਧ ਵਿਕਸਤ ਹੋਵੇਗਾ।
- ਵਿਦਿਆਰਥੀ ਵਿਚ ਸਾਹਿਤਕ ਰੁਚੀਆਂ ਪ੍ਰਫੁੱਲਿਤ ਹੋਣਗੀਆਂ।
- ਵਿਦਿਆਰਥੀ ਚਿੱਠੀ-ਪੱਤਰ ਦੀ ਲਿਖਣ ਸ਼ੈਲੀ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ।
- ਵਿਦਿਆਰਥੀ ਸ਼ਬਦ ਬਣਤਰ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ।

### ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 1.5-1.5 (ਡੇਢ-ਡੇਢ) ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ (Objective Type) 10 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਸਿਲੇਬਸ ਦੇ ਬਾਕੀ ਚਾਰ ਭਾਗਾਂ ਵਿਚ 02-02 ਲੇਖ ਨੁਮਾ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਹਰੇਕ ਭਾਗ ਵਿਚੋਂ 01-01 ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੋਵੇਗਾ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 15 ਅੰਕ ਹੋਣਗੇ। ਪੇਪਰ ਸੈੱਟਰ ਜੇਕਰ ਚਾਹੇ ਤਾਂ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਵੰਡ ਅੱਗੋਂ ਵੱਧ ਤੋਂ ਵੱਧ ਚਾਰ ਉਪ-ਪ੍ਰਸ਼ਨਾਂ ਵਿਚ ਕਰ ਸਕਦਾ ਹੈ।

**ਨੋਟ:** ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ 25 ਅੰਕਾਂ ਦੀ ਹੈ। ਇਸ ਪੇਪਰ ਦੇ ਕੁੱਲ ਅੰਕ 75+25=100 ਹਨ।

### ਪਾਠ-ਕ੍ਰਮ

#### ਭਾਗ-ਪਹਿਲਾ

**ਸਾਹਿਤ ਦੇ ਰੰਗ,** ਡਾ. ਮਹਿਲ ਸਿੰਘ (ਸੰਪਾ.), ਰਵੀ ਸਾਹਿਤ ਪ੍ਰਕਾਸ਼ਨ, ਅੰਮ੍ਰਿਤਸਰ।

ਭਾਗ ਦੂਜਾ - ਵਾਰਤਕ ਅਤੇ ਰੇਖਾ-ਚਿੱਤਰ, ਡਾ. ਪਰਮਿੰਦਰ ਸਿੰਘ, ਡਾ. ਭੁਪਿੰਦਰ ਸਿੰਘ ਅਤੇ ਡਾ. ਕੁਲਦੀਪ ਸਿੰਘ ਢਿੱਲੋਂ (ਸਹਿ ਸੰਪਾ.) (ਵਾਰਤਕ ਭਾਗ ਵਿਚੋਂ ਸਾਰ/ਵਿਸ਼ਾ-ਵਸਤੂ। ਰੇਖਾ-ਚਿੱਤਰ ਭਾਗ ਵਿਚੋਂ ਸਾਰ/ਨਾਇਕ ਬਿੰਬ)

#### ਭਾਗ-ਦੂਜਾ

**ਪੰਜਾਬ ਦੇ ਮਹਾਨ ਕਲਾਕਾਰ** (ਸੰਪਾ. ਬਲਵੰਤ ਗਾਰਗੀ)

ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਯੂਨੀਵਰਸਿਟੀ, ਅੰਮ੍ਰਿਤਸਰ।

(ਸਤੀਸ਼ ਗੁਜਰਾਲ ਤੋਂ ਸੁਰਿੰਦਰ ਕੌਰ ਤਕ)

(ਵਿਸ਼ਾ-ਵਸਤੂ/ਸਾਰ/ਨਾਇਕ ਬਿੰਬ)

### **ਭਾਗ-ਤੀਜਾ**

- (ੳ) ਦਫ਼ਤਰੀ ਚਿੱਠੀ ਪੱਤਰ
- (ਅ) ਅਖਾਣ ਅਤੇ ਮੁਹਾਵਰੇ

### **ਭਾਗ-ਚੌਥਾ**

- (ੳ) ਸ਼ਬਦ-ਬਣਤਰ ਅਤੇ ਸ਼ਬਦ-ਰਚਨਾ: ਪਰਿਭਾਸ਼ਾ ਅਤੇ ਮੁਢਲੇ ਸੰਕਲਪ
- (ਅ) ਸ਼ਬਦ-ਸ਼੍ਰੇਣੀਆਂ

## Khalsa College Amritsar

(An Autonomous College)

**B. A., B. A. Social Science, B. Sc. Medical, B. Sc. Non-Medical,  
B. Com. (Hons.), B. Com. (R), BBA, B. Sc. Economics, B. Sc. Computer Science**

### Semester-I

Compulsory Course

### ਮੁਢਲੀ ਪੰਜਾਬੀ

(In Lieu of Compulsory Punjabi)

#### Credit & Marks Distribution, Eligibility and Pre-Requisites of the Course

| Course title & Code           | Total Teaching Hours | Total Credits/ Hours per week | Credit distribution |   |   | Total Marks 100 |    | Time Allowed in Exam | Eligibility criteria          | Pre-requisite of the course (if any)    |
|-------------------------------|----------------------|-------------------------------|---------------------|---|---|-----------------|----|----------------------|-------------------------------|---|
|                               |                      |                               | L                   | T | P | Theory          | IA |                      |                               |   |
| ਮੁਢਲੀ ਪੰਜਾਬੀ<br><br>BPBI-1102 | 60                   | 4                             | 4                   | 0 | 0 | 75              | 25 | 3 Hours              | Class 12th pass in any stream | NOT Studied Punjabi up to 10th Standard |

#### ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective

- ਵਿਦਿਆਰਥੀ ਨੂੰ ਗੁਰਮੁਖੀ ਲਿਪੀ ਤੋਂ ਜਾਣੂ ਕਰਾਉਣਾ।
- ਵਿਦਿਆਰਥੀ ਨੂੰ ਸ਼ੁੱਧ ਪੰਜਾਬੀ ਪੜ੍ਹਨਾ-ਲਿਖਣਾ ਸਿਖਾਉਣਾ।
- ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੀਆਂ ਵਿਆਕਰਨਕ ਬਾਰੀਕੀਆਂ ਤੋਂ ਜਾਣੂ ਕਰਾਉਣਾ।
- ਸ਼ੁੱਧ ਸੰਚਾਰ ਨੂੰ ਵਿਕਸਤ ਕਰਨਾ।

#### ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)

- ਵਿਦਿਆਰਥੀ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਅਤੇ ਗੁਰਮੁਖੀ ਲਿਪੀ ਦੀ ਸਿਖਲਾਈ ਵਿਚ ਮੁਹਾਰਤ ਹਾਸਲ ਕਰਨਗੇ।
- ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਵਿਚ ਮੁਹਾਰਨੀ, ਲਗਾਂ-ਮਾਤਰਾਂ, ਸਵਰ ਅਤੇ ਵਿਅੰਜਨ ਅੱਖਰਾਂ ਦੀ ਪਛਾਣ ਅਤੇ ਵਰਤੋਂ ਸੰਬੰਧੀ ਸਮਝ ਵਿਕਸਿਤ ਹੋਵੇਗੀ।
- ਪੰਜਾਬੀ ਸ਼ਬਦ-ਜੋੜਾਂ ਦੀ ਜਾਣਕਾਰੀ ਹਾਸਲ ਕਰਕੇ ਉਹ ਸ਼ੁੱਧ ਪੰਜਾਬੀ ਲਿਖਣ-ਪੜ੍ਹਨ ਦੇ ਸਮਰੱਥ ਹੋਣਗੇ।
- ਉਹ ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਸ਼ੁੱਧ ਰੂਪਾਂ ਦੀ ਜਾਣਕਾਰੀ ਹਾਸਲ ਕਰਨਗੇ।

#### ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 01-01 ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ ਉੱਤਰ ਵਾਲੇ (Objective Type) 11 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਦੂਸਰੇ ਭਾਗ ਵਿਚ, ਸਿਲੇਬਸ ਦੇ ਪਹਿਲੇ ਭਾਗ ਵਿਚੋਂ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਕੋਈ ਦੋ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 8-8 ਅੰਕ ਹੋਣਗੇ। ਇਸੇ ਤਰ੍ਹਾਂ ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਤੀਸਰੇ ਭਾਗ ਵਿਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 8-8 ਅੰਕ ਹੋਣਗੇ। ਭਾਗ ਚੌਥੇ ਵਿਚ ਪੰਜ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਚਾਰ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 4-4 ਅੰਕ ਹੋਣਗੇ। ਭਾਗ ਪੰਜਵੇਂ ਵਿਚ ਦਸ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ 8 ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 2-2 ਅੰਕ ਹੋਣਗੇ।

**ਨੋਟ:** ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ 25 ਅੰਕਾਂ ਦੀ ਹੈ। ਇਸ ਪੇਪਰ ਦੇ ਕੁੱਲ ਅੰਕ 75+25=100 ਹਨ।

#### ਪਾਠ-ਕ੍ਰਮ

#### ਭਾਗ-ਪਹਿਲਾ

(ੳ) ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਤੇ ਗੁਰਮੁਖੀ ਲਿਪੀ:

ਨਾਮਕਰਣ ਤੇ ਸੰਖੇਪ ਜਾਣ-ਪਛਾਣ: ਗੁਰਮੁਖੀ ਵਰਣਮਾਲਾ, ਅੱਖਰ ਕ੍ਰਮ, ਸਵਰ ਵਾਹਕ (ੳ, ਅ, ਏ), ਲਗਾਂ-ਮਾਤਰਾਂ, ਪੈਰ ਵਿਚ ਬਿੰਦੀ ਵਾਲੇ ਵਰਨ, ਪੈਰ ਵਿਚ ਪੈਣ ਵਾਲੇ ਵਰਨ, ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ

(ਅ) ਸਿਖਲਾਈ ਤੇ ਅਭਿਆਸ

### **ਭਾਗ-ਦੂਜਾ**

ਗੁਰਮੁਖੀ ਆਰਥੋਗਰਾਫੀ ਅਤੇ ਉਚਾਰਨ:

ਸਵਰ, ਵਿਅੰਜਨ: ਮੁਢਲੀ ਜਾਣ-ਪਛਾਣ ਅਤੇ ਉਚਾਰਨ, ਮੁਹਾਰਨੀ, ਲਗਾਂ-ਮਾਤਰਾਂ ਦੀ ਪਛਾਣ

### **ਭਾਗ-ਤੀਜਾ**

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਜੋੜ: ਮੁਕਤਾ (ਦੋ ਅੱਖਰਾਂ ਵਾਲੇ ਸ਼ਬਦ, ਤਿੰਨ ਅੱਖਰਾਂ ਵਾਲੇ ਸ਼ਬਦ), ਸਿਹਾਰੀ ਵਾਲੇ ਸ਼ਬਦ, ਬਿਹਾਰੀ ਵਾਲੇ ਸ਼ਬਦ, ਔਂਕੜ ਵਾਲੇ ਸ਼ਬਦ, ਦੁਲੈਂਕੜ ਵਾਲੇ ਸ਼ਬਦ, ਲਾਂ ਵਾਲੇ ਸ਼ਬਦ, ਦੁਲਾਵਾਂ ਵਾਲੇ ਸ਼ਬਦ, ਹੋੜੇ ਵਾਲੇ ਸ਼ਬਦ, ਕਨੌੜੇ ਵਾਲੇ ਸ਼ਬਦ, ਲਗਾਖਰ (ਬਿੰਦੀ, ਟਿੱਪੀ, ਅੱਧਕ) ਵਾਲੇ ਸ਼ਬਦ

### **ਭਾਗ-ਚੌਥਾ**

ਸੁੱਧ-ਅਸੁੱਧ ਸ਼ਬਦ

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## Semester-II

Compulsory Course

### ਮੁਢਲੀ ਪੰਜਾਬੀ

(In Lieu of Compulsory Punjabi)

#### Credit & Marks Distribution, Eligibility and Pre-Requisites of the Course

| Course title & Code       | Total Teaching Hours | Total Credits/Hours per week | Credit distribution |   |   | Total Marks 100 |    | Time Allowed in Exam |
|---------------------------|----------------------|------------------------------|---------------------|---|---|-----------------|----|----------------------|
|                           |                      |                              | L                   | T | P | Theory          | IA |                      |
| ਮੁਢਲੀ ਪੰਜਾਬੀ<br>BPBI-1202 | 60                   | 4                            | 4                   | 0 | 0 | 75              | 25 | 3 Hours              |

#### ਕੋਰਸ ਦਾ ਉਦੇਸ਼ Course Objective

- ਵਿਦਿਆਰਥੀ ਅੰਦਰ ਸ਼ਬਦ ਬਣਤਰ ਦੀ ਸਮਝ ਵਿਕਸਤ ਕਰਨਾ।
- ਵਿਦਿਆਰਥੀ ਨੂੰ ਸ਼ਬਦ ਪ੍ਰਕਾਰ ਬਾਰੇ ਜਾਣਕਾਰੀ ਪ੍ਰਦਾਨ ਕਰਨਾ।
- ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਵਿਆਕਰਨਕ ਪ੍ਰਬੰਧ ਸੰਬੰਧੀ ਗਿਆਨ ਕਰਾਉਣਾ।
- ਸਿਖਲਾਈ ਤੇ ਅਭਿਆਸ ਦੁਆਰਾ ਪੰਜਾਬੀ ਸ਼ਬਦ ਭੰਡਾਰ ਵਧਾਉਣਾ।

#### ਪਾਠ-ਕ੍ਰਮ ਨਤੀਜੇ Course Outcomes (COs)

- ਉਹ ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ ਦੀ ਜਾਣਕਾਰੀ ਹਾਸਲ ਕਰਕੇ ਭਾਸ਼ਾਈ ਗਿਆਨ ਨੂੰ ਵਿਕਸਿਤ ਕਰਨਗੇ।
- ਪੰਜਾਬੀ ਸ਼ਬਦ-ਰਚਨਾ ਸੰਬੰਧੀ ਜਾਣਕਾਰੀ ਉਨ੍ਹਾਂ ਦੇ ਗਿਆਨ ਵਿਚ ਵਾਧਾ ਕਰੇਗੀ।
- ਵਿਦਿਆਰਥੀ ਸ਼ਬਦਾਂ ਦੀਆਂ ਭਿੰਨ-ਭਿੰਨ ਕਿਸਮਾਂ ਤੋਂ ਜਾਣੂ ਹੋਵੇਗਾ।
- ਵਿਦਿਆਰਥੀਆਂ ਦੀ ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ ਬਾਰੇ ਸਮਝ ਹੋਰ ਵਿਕਸਿਤ ਹੋਵੇਗੀ।

#### ਅੰਕ-ਵੰਡ ਅਤੇ ਪ੍ਰੀਖਿਅਕ ਲਈ ਹਦਾਇਤਾਂ

ਸਿਲੇਬਸ ਦੇ ਚਾਰ ਭਾਗ ਹਨ ਪਰ ਪ੍ਰਸ਼ਨ-ਪੱਤਰ ਦੇ ਪੰਜ ਭਾਗ ਹੋਣਗੇ। ਪਹਿਲੇ ਭਾਗ ਵਿਚ 01-01 ਅੰਕ ਦੇ ਅਤਿ-ਸੰਖੇਪ ਉੱਤਰ ਵਾਲੇ (Objective Type) 11 ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜੋ ਕਿ ਸਾਰੇ ਸਿਲੇਬਸ ਵਿਚੋਂ ਹੋਣਗੇ ਅਤੇ ਸਾਰੇ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਦੂਸਰੇ ਭਾਗ ਵਿਚ, ਸਿਲੇਬਸ ਦੇ ਪਹਿਲੇ ਭਾਗ ਵਿਚੋਂ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਕੋਈ ਦੋ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 8-8 ਅੰਕ ਹੋਣਗੇ। ਇਸੇ ਤਰ੍ਹਾਂ ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਤੀਸਰੇ ਭਾਗ ਵਿਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 8-8 ਅੰਕ ਹੋਣਗੇ। ਚੌਥੇ ਵਿਚ ਪੰਜ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਚਾਰ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 4-4 ਅੰਕ ਹੋਣਗੇ। ਭਾਗ ਪੰਜਵੇਂ ਵਿਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ। ਜਿੰਨ੍ਹਾਂ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹੋਣਗੇ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ 8-8 ਅੰਕ ਹੋਣਗੇ।

**ਨੋਟ:** ਇੰਟਰਨਲ ਅਸੈਸਮੈਂਟ 25 ਅੰਕਾਂ ਦੀ ਹੈ। ਇਸ ਪੇਪਰ ਦੇ ਕੁੱਲ ਅੰਕ 75+25=100 ਹਨ।

#### ਪਾਠ-ਕ੍ਰਮ ਭਾਗ-ਪਹਿਲਾ

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਬਣਤਰ:

ਧਾਤੂ, ਵਧੇਤਰ (ਅਗੇਤਰ, ਮਧੇਤਰ, ਪਿਛੇਤਰ), ਪੰਜਾਬੀ ਕੋਸ਼ਗਤ ਸ਼ਬਦ ਅਤੇ ਵਿਆਕਰਨਕ ਸ਼ਬਦ

#### ਭਾਗ-ਦੂਜਾ

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਪ੍ਰਕਾਰ:

(ੳ) ਸੰਯੁਕਤ ਸ਼ਬਦ, ਸਮਾਸੀ ਸ਼ਬਦ, ਦੋਜਾਤੀ ਸ਼ਬਦ, ਦੋਹਰੇ/ਦੁਹਰਕਤੀ ਸ਼ਬਦ ਅਤੇ ਮਿਸ਼ਰਤ ਸ਼ਬਦ

(ਅ) ਸਿਖਲਾਈ ਤੇ ਅਭਿਆਸ



### **ਭਾਗ-ਤੀਜਾ**

ਪੰਜਾਬੀ ਸ਼ਬਦ-ਰਚਨਾ:

ਇਕ-ਵਚਨ/ਬਹੁ-ਵਚਨ, ਲਿੰਗ-ਪੁਲਿੰਗ, ਬਹੁਅਰਥਕ ਸ਼ਬਦ, ਸਮਾਨਅਰਥਕ ਸ਼ਬਦ, ਬਹੁਤੇ ਸ਼ਬਦਾਂ ਲਈ ਇਕ ਸ਼ਬਦ, ਸ਼ਬਦ ਜੁੱਟ, ਵਿਰੋਧਅਰਥਕ ਸ਼ਬਦ, ਸਮਨਾਮੀ ਸ਼ਬਦ

### **ਭਾਗ-ਚੌਥਾ**

ਨਿੱਤ ਵਰਤੋਂ ਦੀ ਪੰਜਾਬੀ ਸ਼ਬਦਾਵਲੀ

ਖਾਣ-ਪੀਣ, ਸਾਕਾਦਾਰੀ, ਰੁੱਤਾਂ, ਮਹੀਨਿਆਂ, ਗਿਣਤੀ, ਮੌਸਮ, ਬਜ਼ਾਰ, ਵਪਾਰ, ਧੰਦਿਆਂ ਨਾਲ ਸੰਬੰਧਿਤ

# Khalsa College Amritsar

(An Autonomous College)

)BA, B.A. SS/ B. A. (Hons. – English), B. Com. (Hons., Regular, Account. & Finance), B. Sc. Bio-Tech./Comp. Sc./Eco./Fashion Designing/Food Science/IT/Med./Non Med., B.Sc. (Hons. –Botany, Chemistry, Mathematics, Physics, Zoology), B. of Mult.; B. in Int. & Mob. Tech.; BBA; BCA; BJMC; B. Voc. (Software Development, Theatre and Stage Craft, Food Processing, Textile Design & Apparel Technology)

## SEMESTER-I

*PUNJAB HISTORY & CULTURE (From Earliest Times to C 320 BC)*  
(Special Paper in lieu of Punjabi compulsory)

(For those students who are not domicile of Punjab)

Course Code: BPHC-1104

Credit: 04

L- T- P

04-0-0

Time: 3 Hours

Total Marks: 100

Theory: 75

Internal Assessment: 25

### Instructions for the Paper Setters:

Question paper should consist of two sections—Section A and Section B. The paper setter must ensure that questions in Section–A do not cover more than one point, and questions in Section–B should cover at least 50 per cent of the theme.

**Section–A:** The examiner will set 15 objective type questions out of which the candidate shall attempt any 10 questions, each carrying 1½ marks. The total weightage of this section will be 15 marks. Answer to each question should be in approximately one to two sentences.

**Section–B:** The examiner will set 8 questions, two from each Unit. The candidate will attempt 4 questions selecting one from each Unit in about 1000 words. Each question will carry 15 marks. The total weightage of this section will be 60 marks.

*Note: The examiner is to set the question paper in two languages: English & Hindi.*

**Course Objectives:** The main objective of this course is to educate the history and culture of the Ancient Punjab to the students who are not domicile of the Punjab. It aims to familiarize these students with the physical features of ancient Punjab and its impact on its history and culture. It also provides them information about the different sources to construct the history and culture of the ancient Punjab. The course intends to provide knowledge of social, economic, religious life of the Harappan civilization, Indo-Aryans, teachings and impact of Jainism and Buddhism in the Punjab.

### *Unit-I*

1. Physical features of the Punjab and impact on history.
2. Sources of the ancient history of Punjab.

### *Unit-II*

3. Harappan Civilization: Town planning; social, economic and religious life of the Indus Valley People.
4. The Indo-Aryans: Original home and settlement in Punjab.

### *Unit-III*

5. Social, Religious and Economic life during Rig Vedic Age.
6. Social, Religious and Economic life during later Vedic Age.

### *Unit-IV*

7. Teachings and impact of Buddhism.
8. Jainism in the Punjab.

### *Suggested Readings:-*

L. Joshi (ed), *History and Culture of the Punjab*, Art-I, Patiala, 1989 (3rd edition)

L.M. Joshi and Fauja Singh (ed), *History of Punjab*, Vol. I, Patiala 1977.

Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.

B.N. Sharma, *Life in Northern India*, Delhi. 1966.

### ***Course Outcomes:***

**On Completing the Course, the Students will be able to:**

**CO-1** Learn the history and culture of the Ancient Punjab.

**CO-2** Study the physical features of ancient Punjab.

**CO-3** Understand about the sources of the history of the Punjab.

**CO-4** Analyse the social, economic, religious life of the Harappan civilization and Vedic-Aryans.

**CO-5** Learn the teachings and impact of Jainism and Buddhism in the Punjab.

# Khalsa College Amritsar

(An Autonomous College)

B. A.; B.A. (SS); B. A. (Hons. – English); B. Com. (Hons., R, Ac. & Finance); B. Sc. Bio-Tech./Comp. Sc./Eco./FD/Food Sc./IT/Med./N.Med.; B.Sc. (Hons. –Botany, Chemistry, Mathematics, Physics, Zoology); B. of Mult.; B. in Int. & Mob. Tech.; BBA; BCA; BJMC; B. Voc. (Software Development, Theatre and Stage Craft, Food Processing, Textile Design & Apparel Technology)

## SEMESTER–II

### PUNJAB HISTORY & CULTURE (C 321 BC TO 1000 A.D.)

(Special Paper in lieu of Punjabi compulsory)

(For those students who are not domicile of Punjab)

*Course Code: BPHC-1204*

Credit: 04

L- T- P

04-0-0

*Time: 3 Hours*

*Total Marks: 100*

**Theory: 75**

*Internal Assessment: 25*

*Instructions for the Paper Setters:*

**Question paper should consist of two sections—Section A and Section B.** The paper setter must ensure that questions in Section–A do not cover more than one point, and questions in Section–B should cover at least 50 per cent of the theme.

**Section–A:** The examiner will set 15 objective type questions out of which the candidate shall attempt any 10 questions, each carrying 1½ marks. The total weightage of this section will be 15 marks. Answer to each question should be in approximately one to two sentences.

**Section–B:** The examiner will set 8 questions, two from each Unit. The candidate will attempt 4 questions selecting one from each Unit in about 1000 words. Each question will carry 15 marks. The total weightage of this section will be 60 marks.

*Note: The examiner is to set the question paper in two languages: English & Hindi.*

**Course Objectives:** The main objective of this course is to educate the students who are not domicile of the Punjab about the history and culture of the Ancient Punjab. It is to provide them knowledge about the social, economic, religious, cultural and political life of the people of the Punjab during the rule of various dynasties such as The Mauryans, The Khushans, The Guptas, The Vardhanas and other ancient ruling dynasties of the period under study.

### **Unit-I**

1. The Punjab under Chandragupta Maurya and Ashoka.
2. The Kushans and their Contribution to the Punjab.

### **Unit-II**

3. The Punjab under the Gupta Emperors.
4. The Punjab under the Vardhana Emperors

### **Unit-III**

5. Political Developments 7<sup>th</sup> Century to 1000 A.D.
6. Socio-cultural History of Punjab from 7th Century to 1000 A.D.

### **Unit-IV**

7. Development of languages and Literature.
8. Development of art & Architecture.

#### *Suggested Readings:-*

L. Joshi (ed.), *History and Culture of the Punjab*, Part-I, Patiala, 1989 (3rd edition).

L.M. Joshi and Fauja Singh (ed), *History of Punjab*, Vol.I, Patiala 1977.

Budha Parkash, *Glimpses of Ancient Punjab*, Patiala, 1983.

B.N. Sharma, *Life in Northern India*, Delhi. 1966.

#### *Course Outcomes:*

#### **On completing the course, the students will be able to:**

- CO-1** Understand the history and culture of the Punjab in Ancient Period.
- CO-2** Analyse social, economic, religious, cultural and political life of Ancient Indian dynasties.
- CO-3** Study about the political developments from 7<sup>th</sup> century to 1000 AD.
- CO-4** Understand socio-cultural history of the Punjab from 7<sup>th</sup> century to 1000 AD.
- CO-5** Analyse language, literature, art and architecture of Ancient Punjab.

# Khalsa College Amritsar

(An Autonomous College)

SEMESTER-I

Course Code: ZDA111

Course Title- Drug Abuse: Problem, Management and Prevention

**PROBLEM OF DRUG ABUSE**

(Compulsory for all Under Graduate Classes)

Time: 3 Hours

Credit hrs./wk.:2

Max. Marks: 50

## Instructions for the Paper Setters:

- 1) There will be a total of 9 questions of which 5 are to be attempted.
- 2) Question 1 is compulsory and having 10 short answer type questions (1 mark each).
- 3) The remaining 8 questions (10 marks each) shall include 2 questions from each unit. Candidates shall be required to attempt 4 questions, one from each unit. Preferably, the question should not be split into more than two sub-parts.

## Course Objectives- The course aims to:

|       |  |
|-------|--|
| CO-1. | Generate the awareness against drug abuse.   |
| CO-2. | Describe a variety of models and theories of addiction and other problems related to substance abuse.  |
| CO-3. | Describe the behavioral, psychological, physical health and social impact of psychoactive substances.  |
| CO-4. | Provide culturally relevant formal and informal education programs that raise awareness and support for substance abuse prevention and the recovery process. |
| CO-5. | Describe factors that increase likelihood for an individual, community or group to be at risk of substance use disorders.                                    |

### UNIT-I

- **Meaning of Drug Abuse**

Meaning of drug abuse

Nature and Extent of Drug Abuse: State and National Scenario

### UNIT-II

- **Consequences of Drug Abuse for**

Individual: Education, Employment, Income.

Family : Violence.

Society : Crime.

Nation : Law and Order problem.

### UNIT-III

- **Management of Drug Abuse**

Medical Management: Medication for treatment of different types of drug abuses.

Medication to reduce withdrawal effects.

### UNIT-IV

- Psychiatric Management: Counseling, Behavioral and Cognitive therapy.

- Social Management: Family, Group therapy and Environmental Intervention.

**References:**

1. Ahuja, Ram (2003), Social Problems in India, Rawat Publication, Jaipur.
2. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
3. Inciardi, J.A. 1981. The Drug Crime Connection. Beverly Hills: Sage Publications. 23
4. Jasjit Kaur Randhawa & Samreet Randhawa, “Drug Abuse-Problem, Management & Prevention”, KLS, ISBN No. 978-81-936570-6-5, (2018).
5. Jasjit Kaur Randhawa & Samreet Randhawa, “Drug Abuse Problem, Management & Prevention”, KLS, ISBN No. 978-81-936570-8-9, (2019).
6. Jasjit Kaur Randhawa & Samreet Randhawa, “voZrI d[otos'A^(BPky'oh) ;wZf;nk, gqpzXB ns/o'eEkw”, KLS, ISBN No. 978-81-936570-7-1, (2018).
7. Jasjit Kaur Randhawa, “Drug Abuse -Management & Prevention”, KLS, ISBN No. 978-93-81278-80-2, (2018).
8. Kapoor. T. (1985) Drug epidemic among Indian Youth, New Delhi: Mittal Pub.
9. Modi, Ishwar and Modi, Shalini (1997) Drugs: Addiction and Prevention, Jaipur: Rawat Publication.
10. National Household Survey of Alcohol and Drug abuse. (2003) New Delhi, Clinical Epidemiological Unit, All India Institute of Medical Sciences, 2004.
11. Rama Gandotra & Jasjit Kaur Randhawa, “voZrI d[otos'A^(BPky'oh) gqpzXB ns/ o'eEkw”, KLS, ISBN No. 978-93-81278-87-1, (2018).
12. Sain, Bhim 1991, Drug Addiction Alcoholism, Smoking obscenity New Delhi: Mittal Publications.
13. Sandhu, Ranvinder Singh, 2009, Drug Addiction in Punjab: A Sociological Study. Amritsar. Guru Nanak Dev University.
14. Singh, C. P. 2000. Alcohol and Dependence among Industrial Workers: Delhi: Shipra.
15. Sussman, S and Ames, S.L. (2008). Drug Abuse: Concepts, Prevention and Cessation, Cambridge University Press.
16. World Drug Report 2010, United Nations office of Drug and Crime.
17. World Drug Report 2011, United Nations office of Drug and Crime.

**Course Outcomes:**

The students will be able:

|       |   |
|-------|---|
| CO-1. | To describe issues of cultural identity, ethnic background, age and gender in prevention, treatment and recovery. |
| CO-2. | To describe warning sign, symptoms, and the course of substance use disorders.                                    |
| CO-3. | To describe principles and philosophy of prevention, treatment and recovery.                                      |
| CO-4. | To describe current and evidenced-based approaches practiced in the field of drug addiction.                      |

# Khalsa College Amritsar

(An Autonomous College)

SEMESTER-II

Course Code: ZDA121

Course Title-**DRUG ABUSE: PROBLEM, MANAGEMENT AND PREVENTION**  
**DRUG ABUSE: MANAGEMENT AND PREVENTION**  
(Compulsory for all Under Graduate Classes)

Time: 3 Hours

Credit hrs/wk.: 2

Max. Marks: 50

## Instructions for the Paper Setters:

- 1) There will be a total of 9 questions of which 5 are to be attempted.
- 2) Question 1 is compulsory and having 10 short answer type questions (1 mark each).
- 3) The remaining 8 questions (10 marks each) shall include 2 questions from each unit. Candidates shall be required to attempt 4 questions, one from each unit. Preferably, the question should not be split into more than two sub-parts.

## Course Objectives:

The course aim is to

|       |   |
|-------|---|
| CO-1. | Describe the role of family in the prevention of drug abuse.              |
| CO-2. | Describe the role of school and teachers in the prevention of drug abuse. |
| CO-3. | Emphasize the role of media and educational and awareness program.        |
| CO-4. | Provide knowhow about various legislation and Acts against drug abuse.    |

## UNIT-I

- **Prevention of Drug abuse**

Role of family: Parent child relationship, Family support, Supervision, Shaping values, Active Scrutiny.

## UNIT-II

- School: Counseling, Teacher as role-model.
- Parent-teacher-Health Professional Coordination, Random testing on students.

## UNIT-III

- **Controlling Drug Abuse**

Media: Restraint on advertisements of drugs, advertisements on bad effects of drugs, Publicity and media, Campaigns against drug abuse, Educational and awareness program

## UNIT-IV

- Legislation: NDPS act, Statutory warnings, Policing of Borders, Checking Supply/Smuggling of Drugs, Strict enforcement of laws, Time bound trials.



**References:**

1. Extent, Pattern and Trend of Drug Use in India, Ministry of Social Justice and Empowerment, Government of India, 2004.
2. Gandotra, R. and Randhawa, J.K. 2018. *voZrI d[otos'A (BPky'oh) gqpzXB ns o'eEkw*. Kasturi Lal & Sons, Educational Publishers, Amritsar- Jalandhar.
3. Inciardi, J.A. 1981. *The Drug Crime Connection*. Beverly Hills: Sage Publications.
4. Modi, Ishwar and Modi, Shalini (1997) *Drugs: Addiction and Prevention*, Jaipur: Rawat Publication.
5. Randhawa, J.K. and Randhawa, Samreet 2018. *Drug Abuse-Management and Prevention*. Kasturi Lal & Sons, Educational Publishers, Amritsar- Jalandhar.
6. Sain, Bhim 1991, *Drug Addiction Alcoholism, Smoking obscenity* New Delhi: Mittal Publications.
7. Sandhu, Ranvinder Singh, 2009, *Drug Addiction in Punjab: A Sociological Study*. Amritsar: Guru Nanak Dev University.
8. Singh, C. P. 2000. *Alcohol and Dependence among Industrial Workers*: Delhi: Shipra.
9. *World Drug Report 2011*, United Nations office of Drug and Crime.
10. *World Drug Report 2010*, United Nations office of Drug and Crime

**Course Outcomes:**

The students will be able to:

|       |   |
|-------|---|
| CO-1. | Understand the importance of family and its role in drug abuse prevention.  |
| CO-2. | Understand the role of support system especially in schools and inter-relationships between students, parents and teachers. |
| CO-3. | Understand impact of media on substance abuse prevention.   |
| CO-4. | Understand the role of awareness drives, campaigns etc. in drug abuse management.   |
| CO-5  | Learn about the Legislations and Acts governing drug trafficking and Abuse in India.  |

**Khalsa College, Amritsar**  
**An Autonomous College**  
**MASTER OF COMMERCE (SEMESTER – I)**  
**MC–101: Managerial Economics**

**Credits: 4**  
**L-T- P**  
**4 -0- 0**  
**Time: 3 Hours**

**Credit Hours :4**  
**Total Hours: 60**  
**Total Marks: 100**  
**Theory: 75 Marks**  
**Internal Assessment: 25 Marks**

**Instructions for the Paper Setters**

1. The Question Paper covering the entire syllabus shall be divided into four sections (A, B, C, D).
2. Eight questions of 15 marks each are to be set, two in each of the four Sections (A,B ,C, D). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**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.

**Section A**

- 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.

**Section B**

- 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.

**Section C**

- 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.

**Section D**

- 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:**

| <b>Sr. No.</b> | <b>On completion of this course, the students will be able to:</b>                             |
|----------------|--|
| 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 :4**

**Credits: 4**

**L-T- P**

**3 -0- 1**

**Time: 3 Hours**

**Total Hours: 60**

**Total Marks: 100**

**Theory: 50 Marks**

**Practical : 25 Marks**

**Internal Assessment: 25 Marks**

### **Instructions for the Paper Setters**

1. The Question Paper covering the entire syllabus shall be divided into four sections (A-D).
2. Eight questions of 10 marks each are to be set, two in each of the four Sections (A-D). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
3. Students are allowed to use non-scientific calculator.

**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.

### **Section A**

- Probability Theory: Probability–classical, relative, and subjective probability; Addition and multiplication probability models.
- Probability Distributions: Binomial, Poisson, and normal distributions; Their characteristics and applications.

### **Section B**

- 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.

### **Section C**

- 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.)

### **Section D**

- Questionnaire design.
- 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:**

| <b>Sr. No.</b> | <b>On completion of this course, the students will be able to:</b>          |
|----------------|---|
| 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**

**Credits: 4**  
**L-T- P**  
**4 -0- 0**  
**Time: 3 Hours**

**Credit Hours :4**  
**Total Hours: 60**  
**Total Marks: 100**  
**Theory: 75 Marks**  
**Internal Assessment: 25 Marks**

**Instructions for the Paper Setters**

1. The Question Paper covering the entire syllabus shall be divided into four sections (A, B, C, D).
2. Eight questions of 15 marks each are to be set, two in each of the four Sections (A,B ,C, D). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
3. Students 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 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.

**Section A**

**Definition, Functions, Scope and Limitations of Statistics.**

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

**Section B**

**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.

**Section C**

**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.

**Section D**

**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, Prentice Hall of India, New Delhi.
2. Chandan, J.S., “*Statistics for Business and Economics*”, 1st Edition, (1998), Vikas Publishing House Pvt. Ltd.
3. Render, B. and Stair, R. M. Jr., “*Quantitative Analysis for Management*”, 7<sup>th</sup> 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:**

| <b>Sr. No.</b> | <b>On completion of this course, the students will be able to:</b>  |
|----------------|---|
| <b>CO1</b>     | Acquire knowledge in descriptive and inferential statistics and its applications in diverse field                                     |
| <b>CO2</b>     | Calculate and interpret the correlation between two variables.  |
| <b>CO3</b>     | Estimate simple linear regression analysis, regression coefficients and fit regression model to study relationships between variables |
| <b>CO4</b>     | Demonstrate understanding of concepts of time series and index numbers and its applications in different areas                        |
| <b>CO5</b>     | 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**

|                      |                                      |
|----------------------|--------------------------------------|
| <b>Credits: 4</b>    | <b>Credit Hours :4</b>               |
| <b>L-T- P</b>        | <b>Total Hours: 60</b>               |
| <b>4 -0- 0</b>       | <b>Total Marks: 100</b>              |
| <b>Time: 3 Hours</b> | <b>Theory: 75 Marks</b>              |
|                      | <b>Internal Assessment: 25 Marks</b> |

**Instructions for the Paper Setters**

1. The Question Paper covering the entire syllabus shall be divided into four sections (A, B, C, D).
2. Eight questions of 15 marks each are to be set, two in each of the four Sections (A,B ,C, D). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**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.

**Section A**

**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.

**Section B**

**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.

**Section C**

**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.



## Section D

**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**  
**Bachelor in Business Administration (Semester – I)**  
**BBA-105**  
**MANAGERIAL ECONOMICS- I**

**Credits: 4**

**L-T- P**

**4 -0- 0**

**Time: 3 Hours**

**Instructions for the Paper Setters**

1. The Question Paper covering the entire syllabus shall be divided into four sections (A, B, C, D).
2. Eight questions of 15 marks each are to be set, two in each of the four Sections (A,B ,C, D). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**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.

**Section A**

**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.

**Section B**

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

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

**Section C**

**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.

## Section D

**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. Koutsoyiannis, 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",
5. 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 :4**

**Credits: 4**

**L-T- P**

**4 -0- 0**

**Time: 3 Hours**

**Total Hours: 60**

**Total Marks: 100**

**Theory: 75 Marks**

**Internal Assessment: 25 Marks**

**Instructions for the Paper Setters**

1. The Question Paper covering the entire syllabus shall be divided into four sections (A, B, C, D).
2. Eight questions of 15 marks each are to be set, two in each of the four Sections (A,B ,C, D). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

**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.

**Section A**

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

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

**Section B**

**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.

**Section C**

**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.

**Section D**

**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 Learning 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:**

| <b>Sr. No.</b> | <b>On the completion of the course Students will be able to:</b>   |
|----------------|--|
| 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.  |