

## Scheme and Syllabus of B.A. (Honours) Economics

(w.e.f. July 2019-20)

Programme Code - 42

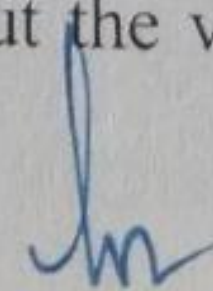
### *Program Outcomes*

1. Train students in basic economic theory.
2. Equip students with the mathematical and statistical techniques necessary for a proper understanding of the discipline.
3. Discuss real world economic issues and problems facing the country and the world.
4. Enable students to understand proper policy responses to economic problems;
5. Train students to collect primary data and learn sampling techniques.
6. Train students to use statistical and econometric methods to arrive at conclusions about the validity of economic theories.
7. The students to learn the art of economic modeling.
8. Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
9. Recognize different value systems including your own, understand the moral dimensions of your decisions, and accept responsibility for them.
10. Understand the issues of environmental contexts and sustainable development.
11. Acquire the ability to engage in independent and life-long learning in the broadest context socio-technological changes.

### *Program Specific Outcomes*

Programme Learning Outcomes Students will be given as:

1. Get an understanding of basic economic theory.
2. Learn the mathematical and statistical techniques necessary for a proper understanding of the discipline;
3. Get an introduction to real world economic issues and problems facing the country and the world;
4. Gain an understanding of proper policy responses to economic problems.
5. Get trained to collect primary data and learn sampling techniques through field work and lab work
6. Learn to use scientific empirical methods to arrive at conclusions about the validity of economic theories.
7. Get trained in the art of economic modeling.



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Kharipur Kalan  
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Approved in 22<sup>nd</sup> Meeting of Academic Council BPSMV (vide resolution No. 4) dated 21<sup>st</sup> July, 2020

Semester-I		Work Load				Max Marks		
Paper Code	Title of the Paper	L	P	T		Internal	External	Total Marks
BHE 101	Introductory Microeconomics	4	0	1	5	20	80	100
BHE 103	Introductory Macroeconomics	4	0	1	5	20	80	100
BHE 105	Mathematical Methods for Economics-I	4	0	1	5	20	80	100
BHE 107	Field Work-I	0	2	--	2	10	40	50
BHE 109	Hindi	4	0	1	5	20	80	100
EVS 100	Environmental Studies	2	0	--	2	Qualifying Only		
<b>Total Contact Hours/Credits</b>		18	2	4	24	90	360	450

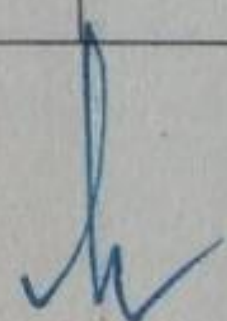
Note: Pass percentage 40% in the external and 40% in the aggregate of external and internal examination.

Semester-II		Work Load				Max Marks		
Paper Code	Title of the Paper	L	P	T		Internal	External	Total marks
BHE 102	Intermediate Microeconomics	4	0	1	5	20	80	100
BHE 104	Intermediate Macroeconomics	4	0	1	5	20	80	100
BHE 106	Mathematical Methods for Economics-II	4	0	1	5	20	80	100
BHE 108	Lab Work-I	0	2	--	2	10	40	50
BHE 110	English	4	0	1	5	20	80	100
LLG 100	Legal Literacy	2	0	--	2	Qualifying Only		
<b>Total Contact Hours/Credits</b>		18	2	4	24	90	360	450

Note: Pass percentage 40% in the external and 40% in the aggregate of external and internal examination.

Semester-III		Work Load				Max Marks		
Paper Code	Title of the Paper	L	P	T		Internal	External	Total
BHE 201	Indian Economy-I	4	0	1	5	20	80	100
BHE 203	Money, Banking and Financial Markets	4	0	1	5	20	80	100
BHE 205	Development Economics-I	4	0	1	5	20	80	100
BHE 207	Statistical Methods-I	4	0	1	5	20	80	100
BHE 209	Lab Work-II	0	2	0	2	10	40	50
CBCS	One Paper from the University List	4	0	--	4	20	80	100
<b>Total Contact Hours/Credits</b>		20	2	4	26	110	440	550

Note: Pass percentage 40% in the external and 40% in the aggregate of external and internal examination.

  
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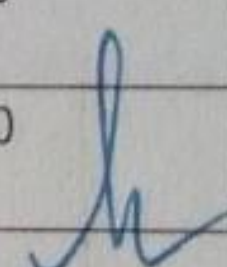
Semester-IV		Work Load			Max Marks			
Paper Code	Title of the Paper	L	P	T	Internal	External	Total Marks	
BHE 202	Indian Economy- II	4	0	1	5	20	80	100
BHE 204 A	Computer Applications in Economics (Theory)	2	0	1	3	10	40	100
BHE 204 B	Computer Applications in Economics (Practical)	0	2	0	2	10	40	
BHE 206	Development Economics-II	4	0	1	5	20	80	100
BHE 208	Statistical Methods-II	4	0	1	5	20	80	100
BHE 210	Field Work-II	0	2	--	2	10	40	50
CBCS	One Paper from the University List	4	0	--	4	20	80	100
<b>Total Contact Hours/Credits</b>		18	4	4	26	110	440	550

Note: Pass percentage 40% in the external and 40% in the aggregate of external and internal examination.

Semester-V		Work Load			Max Marks			
Paper Code	Title of the Paper	L	P	T	Internal	External	Total Marks	
BHE 301	International Economics	4	0	1	5	20	80	100
BHE 303	Public Finance	4	0	1	5	20	80	100
BHE 305	Environmental Economics	4	0	1	5	20	80	100
BHE 307	Term Paper-I	0	2	--	2	10	40	50
<b>D.S.E – COURSE (Choose any two from the List)</b>								
BHE 309	Economic History of India (1857-1947)	4	0	1	5	20	80	100
BHE 311	Industrial Economics	4	0	1	5	20	80	100
BHE 313	Agricultural Economics	4	0	1	5	20	80	100
BHE 315	Public Policy Analysis	4	0	1	5	20	80	100
<b>Total Contact Hours/Credits</b>		20	2	5	27	110	440	550

Note: Pass Percentage 40% in the external and 40% in the aggregate of external and internal examination. The option will be given to students depending upon the availability of teacher with condition of 5 students in a particular option.

Semester-VI		Work Load			Max Marks			
Paper Code	Title of the Paper	L	P	T	Internal	External	Total Marks	
BHE 302	Introductory Econometrics	4	0	1	5	20	80	100
BHE 304	History of Economic Thought	4	0	1	5	20	80	100
BHE 306	Research Report	4	0	1	5	20	80	100
BHE 308	Term Paper-II	0	2	--	2	10	40	50
<b>D.S.E – COURSE (Choose any two from the List)</b>								
BHE 310	Advanced Statistics	4	0	1	5	20	80	100
BHE 312	Advanced Econometrics	4	0	1	5	20	80	100
BHE 314	Behavioral Economics	4	0	1	5	20	80	100

  
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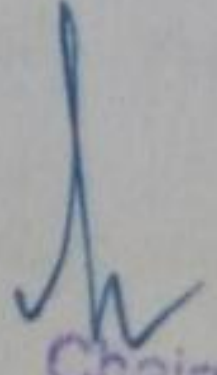


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BHE 316	Financial Economics	4	0	1	5	20	80	100
Total Contact Hours/Credits		20	2	5	27	110	440	550

Note: Pass Percentage 40% in the external and 40% in the aggregate of external and internal examination. The option will be given to students depending upon the availability of teacher with a condition of 5 students in a particular option.

Total Credit = 154; Total marks = 3100

  
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## INTRODUCTORY MICROECONOMICS

**Code: BHE-101**

**Time: 3 Hrs.**

**Max. Marks: 100**

**External: 80**

**Internal: 20**

**Course Objective-** The purpose of this course is to enable students to develop an understanding of basic concepts of microeconomics as consumption and production behavior of economic agents.

**Course Outcome:** The course provides training to the students about the basic elements of consumer behavior, production and cost theories and gives a solid grasp to the students of microeconomic analysis at the introductory-level.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: Introduction:** Meaning, Nature, Scope and Methodology of Economics; Difference between Microeconomics and Macroeconomics; Central Economic Problems; Scarcity and Choice, Production Possibility Curve; Economic Statics and Dynamics; Concept of Equilibrium: Partial vs. General Equilibrium.

**Unit-II: Consumer Behaviour-** Cardinal Utility Analysis (Law of diminishing marginal utility and Law of Equi- marginal utility); Derivation of Demand curve; Indifference Curve Analysis and Consumer Equilibrium, Price, Income and Substitution Effect (Hicks and Slutsky), Giffen Goods, Consumer Surplus.

**Unit-III: Demand and Supply-** Demand; Law of Demand; Elasticity: Price Elasticity of Demand, income elasticity of Demand and Cross Elasticity of Demand; Degrees and Measurement of Price Elasticity of Demand; Engel Curve; Supply and Law of Supply, Elasticity of Supply.

**Unit-IV: Theory of Production-** Production Function; Factors of Production: Law of Variable Proportion and Returns to Scale; Economies and Diseconomies of Scale; Producer's Equilibrium: Isoquant, Expansion Path, Ridge Line, MRTS and Iso-Cost line, Cost: Cost Curves in the Short-Run and Long-Run.

### Suggested Readings:

1. Da Costa, G. C. (1980). Production, Prices and Distribution: Neoclassical and classical systems, Tata McGraw Hill, New Delhi.
2. Koutsoyiannis, A. (1979). Modern Micro-Economics, Palgrave MacMillan Press London.
3. Mankiw, G.N. (2018). 8<sup>th</sup> edition: Principles of Microeconomics, Cengage Learning Publication.
4. Pindyck R. and Rubinfeld D. (2017). 8<sup>th</sup> ed., Microeconomics, Pearson Publication.
5. Sen, A. (1999). Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
6. Varian, H. (2010). 8<sup>th</sup> ed., Intermediate Microeconomics- A Modern Approach, Springer Pvt. Ltd. India.

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## INTRODUCTORY MACROECONOMICS

Code BHE-103

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** The paper is designed to make an undergraduate student aware of functioning of the economy as a whole, including how the economy's total output of goods and services and employment of resources is determined and what causes these totals to fluctuate.

**Course Outcome:** This course enables students to analyze the macroeconomic performance of various variables. It also allows them to calculate the national income through different methods, evaluate important macroeconomic policies and their implications

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit I: Nature and Scope of Macroeconomics-** Nature and Scope of Macroeconomics, Concepts of National Income; Methods of Measuring National Income; Circular Flow of Income; Issues in National Income Accounting;

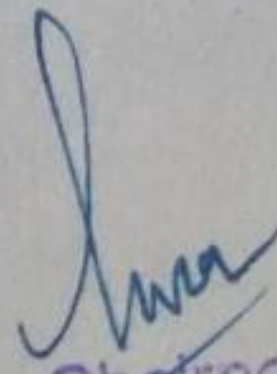
**Unit II: Employment and Output:** Unemployment: Meaning, definition and types (Voluntary, Structural and Frictional); Natural Rate of Unemployment; The Classical Theory of Full Employment; Say's Law; Keynesian Theory of Employment and Output Determination.

**Unit III: Demand for Money-** Demand for money; Classical Views: Quantity theory of Money (Fisher Transaction Approach), Cambridge Approach (Pigou and Marshall); Keynesian Theory of Demand for Money; Liquidity Trap.

**Unit IV: Consumption and Investment-** Consumption Function: Short run and Long Run Consumption Function; Concept of Investment, Types of Investment, Marginal Efficiency of Capital (MEC); Investment Multiplier.

### Suggested Readings:

1. Froyen, R. T. (2008). 10<sup>th</sup> ed. Macroeconomics: Theory and policies, Prentice Hall.
2. Mankiw, N. G. (2006). 4<sup>th</sup> ed. Principles of Macroeconomics, Cengage Learning Publication.
3. Gardner, A. (1978). Macroeconomics, Theory and Policy, Macmillan Library.
4. Shapiro, E. (2003). 5<sup>th</sup> ed. Macroeconomic Analysis, Galgotia Publications New Delhi.
5. Rana and Verma, (2015). Macroeconomic Analysis, Vishal publications.
6. Mankiw, N. G. (2000). Macroeconomics, Macmillan Worth Publishers 4th Edition.
7. Taylor, L. (1983). Structuralist Macroeconomics, Basic Books, New Longman.

  
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## MATHEMATICAL METHODS FOR ECONOMICS -I

Code: BHE-105

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal:20

**Course Objective:** The objective of this course is to acquaint the students with the basic tools of mathematics which is helpful in study of economic theory as micro economics and macroeconomics especially at the undergraduate level.

**Course Outcome:** The students will better understand the application of analytical tools, optimization techniques and logic used in the decision-making.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The 9<sup>th</sup> question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit I: Series-** Arithmetic Series- Meaning, Sum of  $N^{\text{th}}$  term; Three Number in A.P, Arithmetic Mean and its Economic Applications, Geometric Series- Meaning, Sum of  $N^{\text{th}}$  term, Three Number in G.P, Geometrical Mean and its Economic Applications.

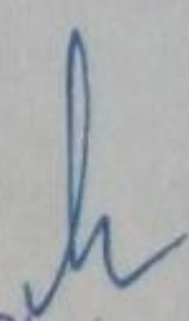
**Unit II: Basic Concepts-** Number and Variables, Continuous and Discontinuous Variables, Constant and Parameter, Real Number System, Set Theory- Sets, Sets Operations, Finite and Infinite Sets, Cartesian Product, Relations with Applications, Functions and Graphs in Economic Theory. Limit and Continuity of a Function, Equation- Simple, Quadratic and Simultaneous with Economic Applications;

**Unit III: Matrices:** Meaning, Types, Transpose, Operation on Addition and Multiplication; Determinants: Definition, Properties, Minor, Cofactor, Adjoint, Invers, Rank- Elementary Row and Computation of Rank, Characteristics, Root and Eigen Value, Cramer Rule and Matrix Method With their Economic Application.

**Unit IV: Differential and Integration:** Simple- Derivatives of a function- Definition, Techniques of Differential, Derivatives of Power Function, Logarithmic Function and Exponential with their Economic Applications; Partial Derivatives and its Economic Applications, Homogenous Function with Properties; Integration and its Application in Economics.

### Suggested Readings:

1. Allen, R.G.D (1983). Mathematical Analysis for Economist, Macmillan & Co. Ltd.
2. Arrow, K.J. and M. Intrilligator (Eds.) (1982), Handbook of Mathematical Economics, Volumes I, II and III, North Holland, Amsterdam.
3. Chiang Alpha, C (1984). 3<sup>rd</sup> ed. Fundamental Method of Mathematics Economics, Mcgraw hill Education, Europe.
4. Henderson J.M. and Quandt R.E. (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
5. Sydsaeter K. and Hammond P. (2002), Mathematics for Economic Analysis, Pearson Education.
6. Yamane, T. (1972). 4<sup>th</sup>ed. Mathematical Analysis: Business and Economics application.

  
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### FIELD WORK-I

Code: BHE-107

Max. Marks: 50

External: 40

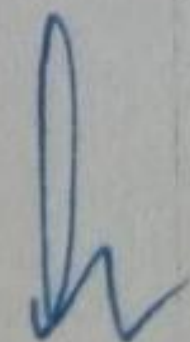
Internal: 10

**Course Objective:** This paper intends to develop the skill for recording of the primary micro level data in their locality.

**Course Outcome:** The students will be able to record the primary data related to the various socio-economic-environmental issues periodically.

**Activity File:** The students will prepare an activity file based on recording and interpretation of primary micro level data/tasks related to economic activities as assigned by the teacher to the students on weekly basis.

**Evaluation:** This paper is jointly evaluated by the external and internal examiner based on viva-voce in the first week of November every year.



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हिन्दी

Code: BHE 109

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

निर्देश:-

1. खंड क में निर्धारित आलोचनात्मक प्रश्नों में से चार प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को किन्हीं दो की सप्रसंग व्याख्या करनी होगी। प्रत्येक व्याख्या 10 अंक की होगी। पूरा प्रश्न 20 अंक का होगा। (2x10=20 Marks)
2. खंड ख में निर्धारित आलोचनात्मक प्रश्नों में से चार प्रश्न पूछे जाएंगे जिनमें से परीक्षार्थियों को किन्हीं दो की सप्रसंग व्याख्या करनी होगी। प्रत्येक व्याख्या 10 अंक की होगी। पूरा प्रश्न 20 अंक का होगा। (2x10=20 Marks)
3. खंड ग और घ में निर्धारित आलोचनात्मक प्रश्नों में से पांच- पांच प्रश्न पूछे जाएंगे। प्रत्येक प्रश्न 04 अंक का होगा। (10x4=40 Marks)

खंड क

ध्रुवस्वामिनी

1. ध्रुवस्वामिनी नाटक का प्रतिपाद्य; 2. ध्रुवस्वामिनी नाटक का पात्रा योजना
3. ध्रुवस्वामिनी नाटक की अभिनेत; 4. प्रसाद की नाट्यकला

खंड ख

व्यवहारिक हिंदी

1. भाषा की परिभाषा, भाषा के विविध रूप: बोली, मानक भाषा, राज्य भाषा, राष्ट्र भाषा, माध्यम भाषा, मातृभाषा
2. मानक भाषा की प्रमुख परवर्तियां; 3. हिंदी की बोलियाँ हरियाणवी, राजस्थानी, ब्रज, अवधी, भोजपुरी

खंड ग

हिंदी वर्तनी और मुहावरे

1. हिंदी वर्तनी: समस्या और समाधान; 2. मुहावरे एवं लोकोक्तियाँ; 3. रस: स्वरूप और अंग, रस के भेद
4. अलंकार- अनुप्रास, श्लेष, यमक, उपमा, रूपक, उत्प्रेक्षा, भ्रांतिमान, अतिशयोक्ति, संदेह, मानवीकरण, अन्योक्ति

खंड घ

व्यवसायिक पत्र लेखन :

- 1 विज्ञापन लेखन, टिप्पणी, नौकरी के लिए आवेदन पत्र 2 निबन्ध लेखन: समसामयिक व्यवसायिक विषयों पर; 3 पारिभाषिक शब्दावली; 4 हिन्दी रिपोर्ट लेखन।

सहायक ग्रन्थ सूची:-

1. हिंदी रंग मंच का इतिहास - चंदू लाल दुबे
2. भरत और भारतीय नाट्य कला - सुरेंद्र नाथ दीक्षित
3. नाट्य कला - डॉ. रघुवंश
4. रंग मंच: देखना और जानना - लक्ष्मी नारायण लाल
5. प्रयोजक मूलक हिंदी - डॉ डी के जैन
6. भाषा विज्ञान और हिंदी भाषा - डॉ नरेश मिश्र
7. अलंकार दर्पण- डॉ नरेश मिश्र
8. प्रयोजक मूलक हिंदी - डॉ नरेश मिश्र

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## INTERMEDIATE MICRO ECONOMICS

Code: BHE-102

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective-** The approach of this paper is to study various concepts of Intermediate Microeconomics like various markets structures as Perfect Competition, Monopoly, Monopolistic Competition and Oligopoly.

**Course Outcome:** This course make students learn about the basic elements of market structure i.e perfect competition, monopoly, monopolistic competition and oligopoly as well as how price and quantity are determined in these various forms of markets.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: Concept of Revenue:** Total Revenue, Marginal Revenue and Average Revenue; Relationship between Price Elasticity, Total Revenue, Average Revenue and Marginal Revenue, Objectives of Firm; Equilibrium of the Firm: Total Revenue-Total Cost Approach; Marginal Revenue and Marginal Cost Approach; Role of time in Price determination.

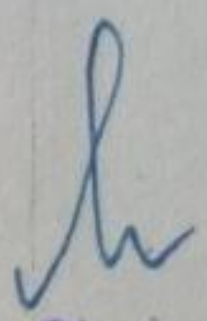
**Unit-II: Perfect Competition and Monopoly:** Perfect Market Analysis; Nature and Characteristics; Equilibrium of Firm and Industry: Short Run and Long Run: Monopoly: Nature and Features; Equilibrium of Firm; Monopoly Power and its Degrees; Price Discrimination.

**Unit-III: Monopolistic Competitive and Oligopoly Market-** Monopolistic Competition: Market Characteristics, Product Differentiation; Short Run and Long Run Equilibrium; Doctrine of Excess Capacity; Oligopoly: Characteristics, Cournot Model, Cartel, Price Leadership under Oligopoly.

**Unit-IV: Theories of Factor Pricing Distribution:** Theory of Wage (Marginal Productivity); Theory of Rent (Ricardo); Theory of Interest (Liquidity Preference, Loanable Fund Theory); Theory of Profit (Knight).

### Suggested Reading:

1. Da Costa, G. C. (1980). Production, Prices and Distribution: Neoclassical and classical systems, Tata McGraw Hill, New Delhi.
2. Koutsoyiannis, A. (1979). Modern Micro-Economics, Palgrave McMillan Press London.
3. Mankiw, G.N. (2018). 8<sup>th</sup> edition: Principles of Microeconomics, Cengage Learning Publication.
4. Pindyck R. and Rubinfeld D. (2017). 8<sup>th</sup> ed., Microeconomics, Pearson Publication.
5. Sen, A. (1999). Microeconomics: Theory and Applications, Oxford University Press, New Delhi.
6. Varian, H. (2010). 8<sup>th</sup> ed., Intermediate Microeconomics- A Modern Approach, Springer Pvt. Ltd. India.

  
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## INTERMEDIATE MACROECONOMICS

Code: BHE-104

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This paper deals with the functioning of the economy as a whole, including how the economy's total output of goods and services and employment of resources is determined and what causes these totals to fluctuate.

**Course Outcome:** This course will enable students to combine their knowledge of the working of the macro economy with long run economic phenomena which includes process of multiplier, accelerator economic fluctuations, business cycles and the concomitant role of policies.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit I: Theories of Consumption and Investment:** Keynesian Psychological Law of Consumption; Absolute Income Hypothesis; Relative Income Hypothesis; Permanent Income Hypothesis; Life Cycle Hypothesis;


**Unit II: The Aggregate Demand and Supply:** Aggregate demand and Supply analysis; The Keynesian Aggregate Demand; Effective Demand Analysis; Inflation: Demand Pull, Cost Push and Mark up; Effects of Inflation on Production, Consumption and Income Distribution;

**Unit III: Inflation and Unemployment:** Trade-off between Unemployment and Inflation (Phillips Curve); Stagflation; Fiscal and Monetary Policy: Objectives, Instruments and Operations; Effectiveness of Monetary and Fiscal Policies in Boom and Depression;

**Unit IV: Investment and Trade Cycles;** Theories of Investment (Jorgensen); Accelerator, Super multiplier; Trade Cycle: Characteristics and Phases; Theories of Trade Cycles (Schumpeter, Hicks and Samuelson)

### Suggested Readings:

1. Froyen, R. T. (2008). 10<sup>th</sup> ed. Macroeconomics: Theory and policies, Prentice Hall.
2. Mankiw, N. G. (2006). 4<sup>th</sup> ed. Principles of Macroeconomics, Cengage Learning Publication.
3. Gardner, A. (1978). Macroeconomics, Theory and Policy, Macmillan Library.
4. Shapiro, E. (2003). 5<sup>th</sup> ed. Macroeconomic Analysis, Galgotia Publications New Delhi.
5. Rana and Verma, (2015). Macroeconomic Analysis, Vishal publications.
6. Mankiw, N. G. (2000). Macroeconomics, Macmillan Worth Publishers 4th Edition.
7. Taylor, L. (1983). Structuralist Macroeconomics, Basic Books, New Longman.

  
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## MATHEMATICAL METHODS FOR ECONOMICS –II

Code: BHE-106

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** - The objective of this course is to acquaint the students with the basic tools of mathematics which is helpful in the study of economic theory as micro economics and macroeconomics especially at the undergraduate level.

**Course Outcome:** The analytical tools introduced in this course have applications wherever optimization techniques are used in business decision-making which is necessary for anyone seeking employment as an economic analyst.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The 9<sup>th</sup> question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: Maxima and Minima:** Maxima and Minima: Basic Concepts; One and Two Variables Maxima and Minima; Constraint Maxima and Minima with Economic Applications.

Integration: Basic Concepts, Methods of Integration- Substitution, by Parts and Partial Fraction Method with Economic Applications.

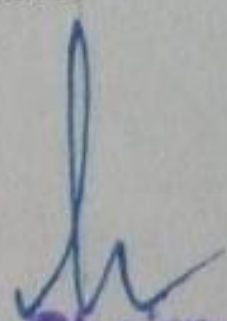
**Unit-II: Growth Rate-** Growth Rate -Meaning, Types and Measurement at Point of Time and Period of Time. Present Value and Its Economic Applications, Input-Output Analysis- Features, Structure, Types, Viability Condition of the Input- Output Model and its Application in Two Sector and Three Sector Model

**Unit-III: Decision Making under Risk and Uncertainty-** Meaning, Elements, Economic Application of Decision Making under Risk and Uncertainty, Game Theory- Terminology and Concepts, Types of Game, Problem Methods of value of Game- with or without Saddle Point, Rule of Dominance.

**Unit-IV: Linear Programming Problems-** Meaning, Assumptions, Applications, Mathematical Formulation, Techniques of Solution of LPP by Graphical Method, Mixed Types Constrained and their Solution. Duality- Meaning Formulation and Importance, Difference between Primal and Dual.

### Suggested Readings:

1. Allen, R.G.D (1983). Mathematical Analysis for Economist, Macmillan & Co. Ltd.
2. Arrow K.J. and M. Intrilligator (Eds.) (1982), Handbook of Mathematical Economics, Volumes I, II and III, North Holland, Amsterdam.
3. Chiang Alpha, C (1984). 3<sup>rd</sup> ed. Fundamental Method of Mathematics Economics, Mcgraw hill Education, Europe.
4. Henderson J.M. and Quandt R.E. (1980), Microeconomic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
5. Sydsaeter K. and Hammond P. (2002), Mathematics for Economic Analysis, Pearson Education.
6. Yamane, T. (1972). 4<sup>th</sup>ed. Mathematical Analysis: Business and Economics application.

  
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**LAB WORK-I**

**Code: BHE-108**

**Max. Marks: 50**

**Internal: 10**

**External: 40**

**Course Objective:** This paper intends to develop the data mining skill for the secondary macro level data from the Economic Survey of India, RBI bulletins and Statistical Abstract of Haryana.

**Course Outcome:** The students will be able to mine the secondary macro level data related to the various socio-economic-environmental issues periodically

**Activity File:** The student will prepare an activity file of the data/tasks/activities/variables from the secondary macro level data from various websites like Economic Survey of India, RBI bulletins and Statistical Abstract of Haryana.

**Evaluation:** This paper is jointly evaluated by the external and internal examiner based on viva-voce in the first week of April every year.



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ENGLISH

Code: BHE-110

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** To enhance the communication skill of the students.

**Course Outcome:** Students will learn both spoken and written English as well as grammar of subject.

*Instructions for Examiners and Examinees:* The paper must be strictly according to the prescribed syllabus. The paper shall be of 80 marks. Each UNIT shall be of twenty marks each. Questions must be set on all four units covering all the topics, providing sufficient choice. The question should be set as per the division of marks provided in each unit of the syllabus. Questions may be set asking a concept, definition, application and developing a sentence. (20 x 4 = 80 marks)

**UNIT- I**

**Sentences:**

Subject and predicate;

Statements (affirmative and negative), questions, imperatives and exclamations

Basic sentence patterns

Agreement of verb and subject

**Determiners, Demonstratives and Quantifiers:**

A/an

The use of 'the' and zero article

This, that, these, those

Possessives

Some, any, many (of), much (of), most (of) all (of), whole (of), both (of) no, none (of), (a) few, (a) little, a lot of, each and every.

**UNIT II**

**Introducing Verb Forms:**

Ordinary and auxiliary

Be, have and do

Action and state verbs

Linking verbs: be, appear, seem etc.

Modals (functional and defective)

**Tense:**


The simple present (I do) and progressive (I am doing)

The present perfectives (I have done/ I have been doing)

The simple past (I did) and progressive (I was doing)

The past perfectives (I had done/ I had been doing)

Talking about future

  
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### UNIT III

#### Passives:

Assertive sentences and Interrogative sentences

Imperative sentences

Verbs with + *-ing* or *to*-infinitive

The case of intransitives

Using passives

#### Parts of Speech:

Noun, Pronoun, Adjective,

Adverb, Conjunction, Interjection

### UNIT IV

#### Prepositions:

The expression of time

The expression of place

Direction and manner

Cause and instrument

Idiomatic phrases

Composition:

Writing Email, Memo and Notices

Business Letters, Report Writing

#### Suggested Reading:

1. Eastwood, John. Oxford Guide to English Grammar. OUP, 1994.
2. Hewing, Martin. Advance English Grammar (reprint) CUP, 2009.
3. Iver, Michelle. Guide to Good Writing. Random House, 1993.
4. Leech, G and M Deucar. English Grammar for Today. Macmillan, 2009.
5. Asha Kaul, Business Communication. New Delhi: PHI, 2009.
6. Sethi and Dhamija. A Course in Phonetics and Spoken English. New Delhi: PHI 2009
7. Bhatnagar, Nitin and Mamta Bhatnagar, Communication English for Engineers and Professionals. Delhi Pearson, 2010



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## INDIAN ECONOMY-I

Code:-BHE-201

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This paper is designed to make students familiar with the basic concepts and working of Indian Economy besides a thorough understanding on planning process, Population characteristics, Agriculture issues, industrial policies and services sector in India.

**Course Outcome:** Students acquires extensive knowledge of Indian economy, issues related to population, agriculture and industry besides equipping the students to interdisciplinary skills and written argumentation and prepares them.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: Structure of Indian Economy-** Nature and Characteristics of Indian Economy; National Income of India: Structure, Measurement and Composition. Growth and Inclusive Growth; Planning in India; Rationale, Objectives and Evaluation; NITI Aayog.

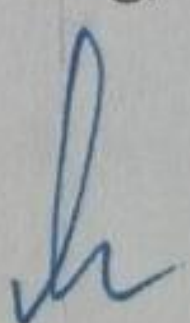
**Unit-II: Population and Human Development-** Demographic Features of Indian Population and their Trends and Issues, Demographic dividends; Issues in Education and Education policy, Health and Gender Related Issues.

**Unit-III: Issues in Indian Agriculture-** Role of Agriculture in Indian Economy, Land Reforms, Green Revolution; White Revolution ; Agricultural Price Policy in India; Doubling of Farm Income;; Agricultural Marketing and Warehousing, Food Security in India;.

**Unit-IV: Industrial Policy-** Industrial Development in India, Micro, Small and Medium Enterprises (MSMEs): Structure and Pattern of Growth; Labour Regulation; Growth and Pattern of Service Sector in India;

### Suggested Reading:

1. Aggrawal, A.N.(2014). Indian Econmoy- Problems of Development & Planning, New Age International Publishers, New Delhi.
2. Virmani , A. (2014). Accelerating Growth and Poverty Reduction: A Policy Framework for India's Development.
3. Bardhan, P.K. (2010). The Political Economy of Development in India, Edtion 9<sup>th</sup> Oxford University Press, New Delhi.
4. Dutt R. and Sunderam K.P.M (2016). Indian Economy, S Chand &Co. Ltd. New Delhi.
5. Mishra S.K & Puri V.K. (2016). Indian Economy and its development experience, Himalaya Publishing House, New Delhi.
6. Kapila, U. (2016). Indian Economy: Policies and Performances, Edition (27th), Academic Foundation, New Delhi.
7. Jalan, B. (1996). India's Economic Policy- Preparing for the Twenty First Century, Viking, New Delhi.

  
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## MONEY, BANKING AND FINANCIAL MARKETS

Code: BHE-203

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** The paper is designed to make an undergraduate student aware of functioning of banking system of the economy, including financial market, insurance, money and capital market.

**Course Outcome:** This course enables students to understand the banking, insurance and financial system of the economy besides increasing the knowledge of students of stock markets and the working of primary and secondary market.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: Basic Concept of Money:** Money: Evolution, types and functions; Different Measures of Money Supply: Monetary Aggregates; Barter System and Monetary System in Economy; Gresham Law of Money.


**Unit II: Banking System:** Central Bank: Instruments, Functions and Operations; Commercial Banks: Functions and Operations; Monetary Policy: Instruments and Operations of Monetary Policy; Monetary Policy of the (Current Year) India.

**Unit III: Money and Capital Market:** Money Market: Function and Instruments; Capital Markets: Types, Functions and Instruments; Non-Banking Financial Institution; Interest rate: Theories of Term Structure of Interest Rates; Introduction of Mutual Funds and Merchant Banking;

**Unit IV: Insurance and Stock Market:** Concept of Insurance, Need for Insurance, Globalization of Insurance Sector, Reinsurance, Co-insurance, Assignment; Regulation of Insurance Sector: Role, Power and Functions of IRDA; Stock Market: Stock Exchanges in India: BSE, NSE, MCX. Buying and Selling of Stocks: Using Brokerage and Analysts' Recommendations

### Suggested Readings:

1. Bhole L. M. and Mahukud, J. (2011). 5<sup>th</sup> ed. Financial Institutions and Markets, Tata McGraw Hill.
2. Fabozzi F. J., Modigliani, F., Jones, F. J. Ferri, M. G. (2009). 3<sup>rd</sup> ed. Foundations of Financial Markets and Institutions, Pearson Education.
3. Gupta S. K., Aggrawal N. and Gupta N. (2018). 5<sup>th</sup> ed. Financial Institution and Market, Kalyani Publications.
4. Khan M. Y. (2011). 7<sup>th</sup> ed. Indian Financial System, Tata McGraw Hill.
5. Mishkin F. S. and Eakins, S. G. (2009). 6<sup>th</sup> ed. Financial Markets and Institutions, Pearson Education.
6. Mishra M. N. 22<sup>nd</sup> ed. Principles and Practices of Insurance, S. Chand and Sons.
7. Crane, Frederick J. (1980). Insurance Principles and Practices, John Wiley and Sons, New York.
8. Vaughan E. J. and T. Vaughan (2013). 11<sup>th</sup> ed. Fundamentals of Risk and Insurance, Wiley & Sons.

  
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## DEVELOPMENT ECONOMICS-I

Code BHE-205

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This course introduces students to the basics of development economics, with in depth discussions of the concepts of development, growth, poverty, inequality as well as measures of economic development.

**Course Outcome:** Students will be able to understand various growth and development parameters, different indicators and measures. They will learn about the basic concepts of development, growth, poverty, inequality, as well as the underlying political institutions

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: Introduction to Economic Development:** -Economic Growth and Economic Development, Core Values of Development, Characteristics of Underdevelopment and Structural Change, Determinants of Development, Measurement of Development (PQLI, HDI).

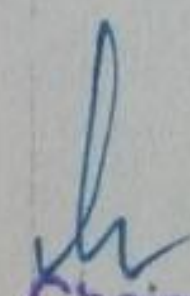
**Unit-II: Poverty Inequality and Development:** Measurement of Inequality, Measurements of Poverty; Vicious Circle of Poverty, Technical Progress (Neutral, Capital Saving and Labour Saving); Employment and Unemployment: Trends and Projections; Four Dimensions of the Employment Problem; Linkages between Unemployment, Poverty and Income Distribution.

**Unit-III: Demography and Development-** Demographic Concepts; Birth and Death Rates; Age Structure; Fertility and Mortality; Demographic Transitions During the Process of Development; Gender bias in Preferences and Outcomes and Evidence on Unequal Treatment within Households, Connection between Income, Mortality, Fertility Choices, Migration.

**Unit-IV: Planning Market and Role of State-** Nature of Development Planning; Basic Concepts of Planning; Rationale of Planning in Developing Economies; Characteristics of Planning Process; Planning in Stages; Plan Failure; Market Economy: Role and Limitations of Market in LDCs.

### Suggested Reading:

1. Thirlwall, A.P. (2011). 9<sup>th</sup> ed. Growth and Development, Palgrave Macmillan, New York.
2. Meire, G.M and Rauch, J. (2000), Leading Issues in Economic Development, Oxford University Press, New York.
3. Ghatak, S. (2003). 4<sup>th</sup> ed. Introduction to Development Economics. Routledge, London and New York.
4. Rist, G. (2009), 3<sup>rd</sup> ed. The History of Development: from western origins to global faith. Academic Foundation, New Delhi
5. Ray, Debraj (2004). 7<sup>th</sup> ed. Development Economics, Oxford University Press, New Delhi.
6. Lekhi, R. K. and Singh J. (2016). The Economy of Development and Planning. Kalyani Publications.

  
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## STATISTICAL METHODS –I

Code BHE-207

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** The objective of this paper is to train the students to use the techniques of statistical analysis which helps them to understand and analyze economic problems. The paper also deals with simple tools and techniques, which will help a student in data collection, presentation, analysis and drawing inferences.

**Course Outcome:** The students will be able to use various types of data, measures of central tendency, measures of dispersion and issues related to sampling and population.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit I: Data and Statistics:** Meaning, Scope and Importance in Economics; Primary data and Secondary Data: Methods of Collection; Quantitative and Qualitative Data; Time Series, Cross Section Data and Pooled Data; Presentation of Data.

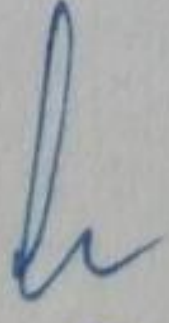
**Unit II: Sampling Fundamentals:** Basic Concepts: Sample Vs. Census; Sampling Techniques: Probability and Non-Probability Sampling; Sampling Errors; Central Limit Theorem: Statement and Significance

**Unit III: Measures of Central Tendency-** Meaning and Types of Average; Arithmetic Mean, Median, Mode, Geometric Mean, Harmonic Mean.

**Unit IV: Measures of Dispersion:** Objective of Dispersion Analysis; Properties of a Good Measure of Dispersion; Methods of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation and Variance (along with absolute measure, the relative measure or coefficient of each type of dispersion); Coefficient of Variation; Lorenz Curve;

### Suggested Readings:

1. Nagar A.L. and Das R.K. (1997). 2<sup>nd</sup> ed. Basic Statistics, Oxford University Press, New Delhi.
2. Gupta S.P. (2014). 43<sup>rd</sup> ed. Statistical Methods, Sultan Chand and Sons, New Delhi.
3. Spiegel, M.R (1992). 3<sup>rd</sup> ed. Theory and Problems of Statistics. McGraw Hill Publication London.
4. Croxton, F.E., Cowden, D.J and Klein, S.K (1973). Applied General Statistics. Prentice Hall, New Delhi.
5. Yates, Frank, Sampling Methods for Censuses and Surveys, Charles, Griffin Co., London.
6. Cochran, W. G., Sampling Techniques, John Willey, New York.
7. Hansen, Hurditz and Meadow, Sample Survey Methods and Theory, John Willey New York.
8. Gupta S. C. and Gupta I. (2018). 2<sup>nd</sup> ed. Fundamentals of Statistics, Himalaya Publishing House, New Delhi

  
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Approved in 22<sup>nd</sup> Meeting of Academic Council BPSMV (vide resolution No. 4) dated 21<sup>st</sup> July, 2020

## LAB WORK-II

Code: BHE-209

Max. Marks: 50

External: 10


Internal: 40

**Course Objective:** This paper is designed to equip students with the skill of questionnaire designing based on quantitative as well as qualitative data.

**Course Outcome:** The students will be able to develop questionnaire on various socio-economic-environmental issues.

**Task:** The students will prepare /draft questionnaire(s) on the topic assigned by the teacher/instructor and submit the same in the form of a file/activity file.

**Evaluation:** This paper is jointly evaluated by the external and internal examiner based on viva-voce in the first week of November every year.

  
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INDIAN ECONOMY-II

Code: BHE-202

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** The Paper is designed to make familiar to the students with the basic concepts of Indian Economy and deals with the problem of poverty, economic reforms, foreign trade and trade Agreements of India.

**Course Outcome:** This paper also exposes the students to the realities of the Indian Economy and teaches them to develop critical analysis in an integrated and broader Indian economy framework.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I : Growth, Distribution and Poverty-** Poverty: Problem of Poverty in India and Policies, Employment; Occupational Structure in Organized and Unorganized Sectors, Employment Schemes and their Impacts, Inequality and Unemployment.


**Unit-II: Indian Tax Structure-** Direct and Indirect taxation in India; Tax Revenue of Centre and State; Evaluation and Tax Reforms Since 1991; GST in India; Public expenditure in India: Role, growth and composition; Fiscal Federalism: Centre and State Relations..

**Unit-III Economic Reforms-** New Economic Policy (1991), Rational Economic Reforms; Liberalization, Privatization, Globalization and their Impact on Indian Economy; Banking sector reforms; Menace of Black money in India

**Unit-IV: Foreign Trade-** India's Foreign Trade: Composition and Direction of Trade; BOP Payment Scenario: FDI and its Role in Development of Indian Economy; WTO and Indian Economy; Recent Bilateral Trade Agreements of India.

**Suggested Readings:**

1. Aggrawal, A.N.(2014). Indian Economy- Problems of Development & Planning, New Age International Publishers, New Delhi.
2. Virmani, A. (2014). Accelerating Growth and Poverty Reduction: A Policy Framework for India's Development.
3. Bardhan, P.K. (2010). The Political Economy of Development in India, Edition 9<sup>th</sup> Oxford University Press, New Delhi.
4. Dutt R. and Sunderam K.P.M (2016). Indian Economy, S Chand &Co. Ltd. New Delhi.
5. Mishra S.K & Puri V.K. (2016). Indian Economy and its development experience, Himalaya Publishing House, New Delhi.
6. Kapila, U. (2016). Indian Economy: Policies and Performances, Edition (27th), Academic Foundation, New Delhi.
7. Jalan, B. (1996). India's Economic Policy- Preparing for the Twenty First Century, Viking, New Delhi.

  
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**COMPUTER APPLICATION IN ECONOMICS**  
**(Theory)**

**Code: BHE-204 A**

**Time: 3 Hrs.**

**Max. Marks: 50**

**Internal: 10**

**External: 40**

**Course Objective:** The paper is designed to make students familiar with the basic concepts of computers.

**Course Outcome:** Students acquires extensive theoretical knowledge about computer hardware and software.


**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 4 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the both of the two units, i.e., 4 questions from each of the units of 08 marks each. The examinees have to attempt two questions from each of units besides the compulsory question.

**Unit-I: Fundamentals of Computers:** Computers types (Analog, Digital and Hybrid); Characteristics and role of computers; Evolution of computers (Generation), Input and output devices of a Computer; Hardware and Software; Computer languages; Operating systems.

**Unit II: MS-Office:** Introduction to MS-Word, Excel & Power-Point; Memory and storage devices; Managing and organizing data: Steps in Data Storage, Organization and Cleaning, Visualization & Representation; Alternative Forms of Presentation Summarizing & Presentation Data.

**Suggested Readings:**

1. Dhunna M. and Dixit J.B.(2010). Information Technology in Business Management, University Science Press New Delhi (An imprint of Laxmi Publications, New Delhi)
2. Goyal A. (2013). Computer Fundamentals Programming In C, Publisher Pearson,
3. Jaiswal S. (1997). Computer science Question Bank Bible, Galgotia Publishers, New Delhi.
4. Raja R. (2007). Fundamentals of Computer, Prentice Hall of India, New Delhi.
5. Sinha, P. K (2016). Computer Fundamentals, 3<sup>rd</sup> ed., BPB Publications, New Delhi

  
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**COMPUTER APPLICATION IN ECONOMICS  
(Practical)**

**Code: BHE-204 B**

**Max. Marks: 50**

**Internal: 10**

**External: 40**

**Course Objective:** The paper is designed equip students with the practical applications of statistical tools by using statistical software such as SPSS and Excel on computer.

**Course Outcome:** Students will learn computer application in economics besides applying computer software on statistical data and analyses the same.


**Instructions for Examiners and Examinees:** *The computer practical examination will be conducted by the external and internal examiners jointly. A theory paper comprises of four question (two from each of the two units) will be set by the both examiners jointly on spot. The students are required to attempt two from questions sectioning one from each of the two units on answer sheet as well as on computers.*

**Unit-I: Data Analysis-** Diagram and graphical presentation of data, Calculation of central Tendency (Mean, Median, Mode, Harmonic Mean, and Geometric means); Standard Deviation and Coefficient of variation; Working with Charts, Graphs, Tables, pictures and Shapes.

**Unit-II: Correlation Regression-** Correlation and Regression Analysis, Plotting the Time Series Data and Calculation of Growth Rate (Annual and Compound);

**Suggested Readings:**

1. Dhunna M. and Dixit J.B.(2010). Information Technology in Business Management, University Science Press New Delhi (An imprint of Laxmi Publications, New Delhi)
2. Goyal A. (2013). Computer Fundamentals Programming In C, Publisher Pearson,
3. Jaiswal S. (1997). Computer science Question Bank Bible, Galgotia Publishers, New Delhi.
4. Raja R. (2007). Fundamentals of Computer, Prentice Hall of India, New Delhi.
5. Sinha, P. K (2016). Computer Fundamentals, 3<sup>rd</sup> ed., BPB Publications, New Delhi

  
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## DEVELOPMENT ECONOMICS-II

Code: BHE-206

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This course introduces students to the basics of development economics, with in depth discussions of the relationship of development theories with internal and external environment as well as the process of globalization.

**Course Outcome:** From this course students will learn about various theories of economic development, issues related to growth with the help of various growth models, role of institutions by studying different types of contracts in land, labor and microfinance markets and role of international trade and its pattern.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit I: Theories of Development:** Classical Theory of Economic Growth: Adam Smith, David Ricardo and Karl Marx; Schumpeterian Theory of Economic Development.


**Unit II: Growth Models:** The Harrod-Domar Model, the Solow Model; Endogenous Growth Models; Growth Theories: Low Level Equilibrium Trap, Balanced Growth Theory, Unbalanced Growth Theory.

**Unit III: Market in Agriculture:** The Distribution of Land Ownership; Land Reforms and its Effect on Productivity Contractual Relationship between Tenants and Landlords; Land Acquisition Informational Problems and Credit Contracts; Microfinance, Interlinkages between Rural Factor Markets.

**Unit IV: International Trade:** Globalization in Historical Perspective-Waves of Globalization, World Trading Pattern and Trade Policy; Import Substitution versus Export Promotion; Restricted Trade Policy; Issues in Trade Liberalization; Role of World Bank and its Subsidiaries in Developing Countries.

### Suggested Reading:

1. Thirlwall, A.P. (2011). 9<sup>th</sup> ed. Growth and Development, Palgrave Macmillan, New York.
2. Meire, G.M and Rauch, J. (2000), Leading Issues in Economic Development, Oxford University Press, New York.
3. Ghatak, S. (2003). 4<sup>th</sup> ed. Introduction to Development Economics. Routledge, London and New York.
4. Rist, G. (2009), 3<sup>rd</sup> ed. The History of Development: from western origins to global faith. Academic Foundation, New Delhi
5. Ray, Debraj (2004). 7<sup>th</sup> ed. Development Economics, Oxford University Press, New Delhi.
6. Lekhi, R. K. and Singh J. (2016). The Economy of Development and Planning. Kalyani Publications.

  
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## STATISTICAL METHODS-II

Code: BHE-208

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** The objective of this paper is to train the students to use the techniques of statistical analysis which helps them to understand and analyze economic problems. The paper also deals with simple tools and techniques, which will help a student in data collection, presentation, analysis and drawing inferences.

**Course Outcome:** The students will be able to use correlation and regression analysis, index numbers and time series analysis and their applications. These techniques they can use in applied research in economics and statistical analysis.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit I: Correlation Analysis:** Correlation: Types, Utility, Degree and its Techniques; Karl Pearson Coefficient of Correlation in Bivariate and Individual Series, Spearman's Rank Correlation Coefficient; Properties and Uses of Correlation; Concurrent Deviation Method; Coefficient of Determination;

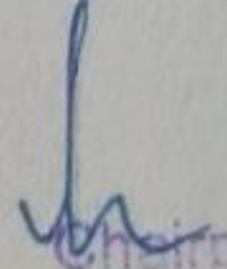
**Unit II: Regression Analysis:** Meaning and Types of Regression: Simple and Multiple Linear and Non-Linear Regressions; Concept and Method of Least Squares; Properties of Regression Coefficients; Regression Analysis in Economic Studies: Coefficient of Determination; Difference between Correlation and Regression

**Unit III: Index Numbers:** Meaning, Uses, Role and Importance of Index Numbers; Types of Index Numbers: Price Index, Quantity Index, Value Index, Simple Index Number, Weighted Index Number; Construction of Index Number, Problems in Construction; Methods in Construction of Index Numbers: Simple and Weighted Methods of Construction; Laspeyre's Price Index, Paasche's Price Index; Fisher's Ideal index, Time Reversal, Factor Reversal and Circular Test; Base Shifting, Splicing and Deflating of Index Number;

**Unit IV: Time Series Analysis:** Meaning and Types of Time Series Data; Method of Measuring Trend; Measurement of Seasonal Variation; Association of Attributes: Extrapolation and Interpolation

### Suggested Readings:

1. Nagar A.L. and Das R.K. (1997). 2<sup>nd</sup> ed. Basic Statistics, Oxford University Press, New Delhi.
2. Gupta S.P. (2014). 43<sup>rd</sup> ed. Statistical Methods, Sultan Chand and Sons, New Delhi.
3. Spiegel, M.R (1992). 3<sup>rd</sup> ed. Theory and Problems of Statistics. McGraw Hill Publication London.
4. Croxton, F.E., Cowden, D.J and Klein, S.K (1973). Applied General Statistics. Prentice Hall, New Delhi.
5. Yates, Frank, Sampling Methods for Censuses and Surveys, Charles, Griffin Co., London.
6. Cochran, W. G., Sampling Techniques, John Willey, New York.
7. Hansen, Hurditz and Meadow, Sample Survey Methods and Theory, John Willey New York.
8. Gupta S. C. and Gupta I. (2018). 2<sup>nd</sup> ed. Fundamentals of Statistics, Himalaya Publishing House, New Delhi

  
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## FIELD WORK-II

Code: BHE-210

Max. Marks: 50

Internal: 10

External: 40

**Course Objective:** This paper aims to prepare students for field experience by way of conducting small primary survey based on questionnaire designed in the III semester.

**Course Outcome:** The students will be able to develop the skill in fulfilling the questionnaire in the filed level data related to the various socio-economic-environmental issues.

**Field Work:** The students will do a household/microenterprises survey in a nearby village/locality based on the questionnaire prepared in the previous semester of at least 20 households/enterprises and submit the same in a activity file after employing some statistical tools for its analysis and interpretation.

**Evaluation:** This paper is jointly evaluated by the external and internal examiner based on viva-voce in the first week of April every year.



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## INTERNATIONAL ECONOMICS

Code: BHE-301

Time: 3Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This module introduce students to main theoretical and empirical concepts in international trade, equip students with a thorough analytical grasp of trade theory, familiarize students with main issues of trade policy and basic features of international trade regime.

**Course Outcome:** From this course students will learn theories of international trade, concepts of balance of payment and exchange rate, trade policy and various instruments such as tariff, Quotas, export subsidies etc and gain knowledge about international monetary system and gold standard.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: International Trade Theories:** What is International Economics About? The International Economy and Globalization; Historical Development of Modern Trade Theory; an Overview of World Trade; International Trade Theories: Theory of Absolute Advantage, Comparative Advantage & Opportunity Costs Heckscher-Ohlin Theory of Trade.

**Unit II: BOP and Exchange Rate:** Balance of Payments Approaches: Elasticity approach (J Curve), Absorption Approach and Monetary Approach; Demand for Foreign Exchange and Supply of Foreign Exchange; Equilibrium Exchange Rate; Foreign Trade Multiplier, Regional Trade Agreements.

**Unit-III: Trade Policy Analysis:** Instruments of Trade Policy; Tariffs Impact of Tariff on Host and Home Countries, Quotas, Export Subsidies, Voluntary Export Restraints; Dumping; Other Non-Tariff Barriers; Trade Reforms and Trade Policy for Developing Economics

**Unit-IV: International Monetary System:** The Gold Standard; The Interwar Period; The Bretton Woods System; International Monetary System (1973 to Present); Exchange Rate System; International Monetary Fund, World Trade Organization.

### Suggested Reading:

1. Feenstra R and Taylor A. (2014). 3<sup>rd</sup> ed. International Economics, Worth Publishers.
2. Salvatore, D. L. (2014). 11<sup>th</sup> ed. International Economics: Trade and Finance, Wiley Publication.
3. Soderston, B. O. (1999). 2<sup>nd</sup> ed. International Economics, Macmillan Press Ltd. London.
4. Krugman Paul R. and Maurice (2018). 11<sup>th</sup>ed. International Economics, Theory and Policy Obstfeld-Wesley Series in Economics.
5. Pugel, T. (2015). 16<sup>th</sup> ed. International Economics, McGraw-Hill.

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**PUBLIC FINANCE**

**Code: BHE- 303**

**Time: 3 Hrs.**

**Max. Marks: 100**

**External: 80**

**Internal: 20**

**Course Objective:** The paper deals with the nature of government intervention and its implications for allocation, distribution and stabilization. Inherently, this study involves a formal analysis of government taxation and expenditures.

**Course Outcome:** In this course students will learn about various roles of government such as allocation, distribution and stabilization process. It also provides insights about various concepts of budget and related documents. Students will also learn about various sources of revenue and expenditure of government.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I: Introduction to Public Finance:** Nature, Scope and Importance; Role of Government; Theory of Maximum Social Advantage; Private Goods; Public Goods and Merit Goods; Overview of Different Role of Government: Allocation, Stabilization and Distribution.


**Unit-II: Budgetary Deficits:** Concepts and Measures: Revenue Account; Capital Account; Budgetary Deficits: Fiscal deficit, Primary Deficit, Monetized Deficit, Revenue Deficit, Balanced Budget- Arguments; Zero Base Budgeting and Performance Budgeting.

**Unit-III: Public Revenue and Tax:** Sources of Public Revenue: Tax and Non-Tax Source, Ad Valorem and Specific Taxes, Progressive and Proportional Taxes, Direct and Indirect Taxes; GST (Goods and Services Tax): Meaning and Role of GST in Indian Economy, Approaches to Tax Equity: Benefit Principle; Ability to Pay Principle; Theory of Incidence of Taxes.

**Unit-IV: Public Expenditure and Public debts:** Public Expenditure: Classification and Effects; Cannon of Public Expenditure, Wagner's Law of Increasing State Activities; Peacock-Wiseman Hypothesis; Public Debts-External and Internal; Central-State Financial Relations, 14<sup>th</sup> Finance commission.

**Suggested Readings:**

1. Bhatia, H.L. (2018). 29<sup>th</sup> ed. Public Finance, Vikas Publishing House Private Ltd.
2. Cullis J. and Jones P. (1998) 2nd ed. Public Finance and Public Choice, University Press.
3. Hindriks J. and Myles G. (2013). 2<sup>nd</sup> ed. Intermediate Public Economics, MIT Press.
4. Stiglitz J. (2009). 3rd ed. Economics of the Public Sector, W. W. Norton.
5. Richard A Musgrave and Peppy B Musgrave (2009). 5<sup>th</sup> ed. Public Finance in Theory and Practice, Tata Mcgraw Hill.
6. Government of India: GST - Concept and Status - as on 3rd June, 2017, Central Board of Excise and Customs, Department of Revenue, Ministry of Finance (2017)

  
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## ENVIRONMENTAL ECONOMICS

Code: BHE 305

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This course focuses on economic causes of environmental problems and acquaints students with the methods for the valuation of environmental quality, assessment of environmental damages, and environmental impact assessments.

**Course Outcome:** This course equip students about economic causes of environmental problems, how economic principles are applied to environmental questions viewed as externalities and their management through various economic institutions, economic incentives and other instruments and policies.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit-I: Introduction to Environmental Economics-** Pareto Optimality; External Effects in Production and Consumption; Market Failure in case of Environmental Goods. Pigouvian Tax and Subsidy (Coase Theorem)


**Unit-II: Economic Incentives for Environmental Protection-** Price Rationing –Pollution Charges, Ambient Charges, Subsidies; Liability Rules, Non-Compliance Fees, Deposit Refund System, Performance Bonds; Quantity Rationing-Market Pollution Permits; Choice between Taxes and Quotas under Uncertainty

**Unit-III: Natural Resources-** Types, Classification and Scarcity; Economics of Sustainable Development; Solow/Hartwick Approach to Sustainability; Environmental Accounting; Global Efforts for Environmental Protection;

**Unit-IV: Environment policy framework in India-** Problems of Command and Control Regime; Environmental Legislation and Implementation; Development and Degradation; Poverty, Population and Political economy; Air and Water Pollution and their Existing Control Mechanism.

### Suggested Readings:

1. Kolstad, C. (2010). 2nd ed. Intermediate Environmental Economics, Oxford University Press
2. Chary S.N. and Vyasulu V. (2000). Environmental Management - An Indian Perspective, Macmillan, New Delhi.
3. Cropper M. (1999). Valuing Environmental Benefits, Edward Elgar.
4. Hanley N., Shogern J.F and White B. (1997). Environmental Economics in Theory and Practice, Macmillan.
5. Hussen A.M. (1999). Principals of Environmental Economics, Routledge London.
6. Jeroen C.J.M. and Berg Van den (1999). Handbook of Environmental and Resource Economics, Edward Elgar Publishing Ltd., U.K.
7. Pearce D.W. and Turner R. (1991). Economics of Natural Resource Use and Environment, John Hopkins University Press, Baltimore
8. Perman R., Ma Y., McGilvray J. and Common M. (2011). 3<sup>rd</sup> ed. Natural Resource and Environmental Economics, Pearson Education
9. Shankar, U. (2001): Environmental Economics, Oxford University press, New Delhi.

  
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**TERM PAPER-I**

**Code: BHE-307**

**Max. Marks: 50**

**Internal: 10**

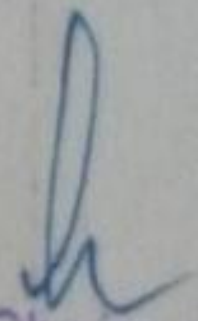
**External: 40**

**Course Objective:** This paper intends to develop some advanced skills in data analysis using statistical tools for economic inference.

**Course Outcome:** The students will be able to apply various statistical tools on primary and secondary data related to the various socio-economic and environmental issues.

**Task:** Based on the field survey and secondary data mining and primary data recording in previous years; students will use statistical tools and do the analysis of their data and make a summary of the results in the form of tables, charts and graphs. The students will submit the summary of their results in an activity file.

**Evaluation:** The term paper is jointly evaluated by the external and internal examiner based on viva-voce in the first week of November every year.

  
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**ECONOMIC HISTORY OF INDIA**  
(1857-1947)

**Code: BHE 309**

**Time: 3 Hrs.**

**Max. Marks: 100**

**External: 80**

**Internal: 20**

**Course Objective:** This course will make students familiar about key aspects of Indian economic development during the second half of British colonial rule. It also investigates the mechanisms that linked economic development in India to the compulsions of colonial rule.

**Course Outcome:** Students will learn about Indian economic development during the second half of British colonial rule. They will learn about cause and consequences of British rule on Indian Economy and its various sectors such as agriculture, industry and foreign trade.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit-I: Colonial India:** Background and Introduction; Indian Economy on the Eve of British Rule; Trends in National Income and its Sectoral Distribution; Economic Drain from India.

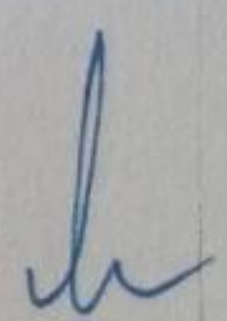
**Unit-II: Population and labour:** Transition in India's Social Structure: India's Economic Backwardness; Demographic Transition; Population Growth, over Population and Poverty.

**Unit-III: Indian Agriculture:** Agrarian Structure and Land Relations, Famines and Food Problem, Co-operative Movement in India, Agricultural Policy, Commercialization of Agriculture.

**Unit-IV: Economic Transition in India:** Industry, trade and railways: Industrial backwardness under British rule, India's major industries, Industrial policy, India's foreign trade, India and world depression.

**Suggested Readings:**

1. Washbrook, D. (2012). The Indian economy and the British empire, in D. Peers, N. Gooptu (eds.): India and the British Empire, Oxford University Press
2. Krishnamurty, J. (1982). Occupational structure, in D. Kumar, T. Raychaudhari (eds.): Cambridge Economic History of India 1757-c.1970 2, Orient Longman
3. Parthasarathi, P. (2009). Historical issues of deindustrialization in nineteenth century South India, in T. Roy, G. Riello (eds.): How India Clothed the World: The World of South Asian Textiles, 1500-1850.
4. Ray, R. (1994). Introduction, in R. Ray (ed.): Entrepreneurship and Industry in India 1800-1947, Oxford University Press.
5. Guha, S. (1991). Mortality decline in early 20th century India, Indian Economic and Social History, Review 28(4), 371-87.
6. Kaushal, G. Economic History of India, Kalyani publications, New Delhi.
7. Singh V.B. Economic History of India, Allied publications private limited, Bombay

  
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## INDUSTRIAL ECONOMICS

Code: BHE 311

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This course provides knowledge to the students on the basic issues of industrial economics such as problem of industrial productivity, efficiency, capacity utilization etc.

**Course Outcome:** Having successfully completed this module student will be able to demonstrate knowledge and understanding of the nature of strategic competition and its implications for policy. Demonstrate knowledge and understanding of a set of analytical techniques which can be applied to a variety of economic (and non-economic) problems.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The ninth question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit-I Industrial Economics:** Scope, Framework and Problems; Concepts and Organization of a Firm-Ownership, Control and Objective of the Firm, Industrial Efficiency: Concepts and Measurement, Market Structure, Product Differentiation, Economies of Scale.


**Unit-II Theories of Industrial Location** - Weber and Sergant Florence, Factors Affecting Location; Product Pricing- Theories and Evidence; Profitability- Concept, Measurement and Theory of Profitability; Market Structure and Innovation; Sales Concentration.

**Unit-III Growth of the Firm:** Theory of Growth of the Firm; Behavioristic model of the Firm, Motives and Measurement of Diversification, Vertical Integration and Merger; Advertising Strategy and its Role,

**Unit-IV Industrial Productivity-** Measurement and Total Trends, Role and Performance of Small Scale & Large Scale Industries, Industrial Sickness in India; Role and Performance of Public Sector and Private Sector in India.

### Suggested Readings:

1. Ahluwalia (1985). Industrial Growth in India, Oxford University Press, New Delhi.
2. Barthwal, R.R. (1985). Industrial Economics, Wiley Eastern Ltd. New Delhi.
3. Desai, B. (1999). 3<sup>rd</sup> ed. Industrial Economy in India, Himalaya Publishing House Mumbai.
4. Divine, P.J. and Jones (1985). 4<sup>th</sup> ed. An Introduction to Industrial Economics, Routledge publication.
5. Economic Survey, Government of India, (Annual)
6. Hay D. and Morris D.J. (1976). Industrial Economics: Theory and Evidence University Press, New Delhi.
7. Kuchal, S.C. (1989). 19<sup>th</sup> ed. Industrial Economy of India, Chaitanya Publishing House Allahabad.
8. Seth, R. (2010). 1<sup>st</sup> ed. Industrial Economics, Anne books Pvt. Ltd.

  
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## AGRICULTURAL ECONOMICS

Code: BHE 313

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This paper acquaints students about the issues in agrarian structure of Indian economy in addition to land systems, peasantry farming, role and pattern of agriculture development.

**Course Outcome:** Students will learn about the various issues related to agriculture and its development such as agriculture price policy, agriculture markets and infrastructure, agriculture trade and WTO.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit-I: Introduction to Agriculture-** Definition, Scope and Nature of Agriculture Economics; Role of Agriculture in Economic Development; Agriculture Markets: Aim, Types, and Functions, Interdependence between Agriculture and Industry.

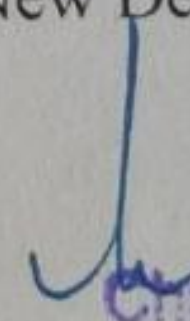
**Unit-II: Agricultural Growth in India-** Recent Trends in Agricultural Growth in India; Investment & Capital Formation in Indian Agriculture; Land Reforms: Meaning, Objectives of Land Reforms; Green Revolution.

**Unit-III: Agriculture Finance and theories of development-** Agriculture Credit System in India, Role of Institutional and non-institutional credit in Agricultural Development, Agricultural Development in Five Year Plans; Transformation of Agriculture: Schultz, Mellor and Boserup.

**Unit-IV: Agriculture Price Policy-** Objectives Need and Instrument of Agriculture Price Policy, Commission of Agricultural Costs and Prices: Fixing MSP and Costs for Various Crops, India's Foreign Trade in Agriculture, WTO and Indian Agriculture.

### Suggested Readings:

1. Black, J.D. (1945). Introduction to Economics of Agriculture, MacMillan, New York.
2. Cohen, R.L. (1948). Economics of Agriculture, Nisbet, London.
3. Dantwala, M.L. et al. (1991). Indian Agricultural Development since Independence, Oxford and IBH, New Delhi.
4. Drummond H. Evan and Goodwin W. John (2006). Agricultural Economics, Pearson Education, New Delhi.
5. Eicher Carl and Lawrence Witt (Eds.) (1964). Agriculture in Economic Development, New York, McGraw Hill Co.
6. Forster, G.W. and Leoger, M.C. (1959). Elements of Agricultural Economics, Prentice Hall.
7. Goodwin, H.G. (1977). Economics of Agriculture, Reston Publishing Co. Halcrow.
8. Heady, E.O (1964). Economics of Agriculture Production and Resources, Prentice Hall of India Pvt. Ltd., New Delhi.
9. Soni, R.N. (2015). 12<sup>th</sup> ed. Leading Issue in Agriculture Economics, Vishal Publication.
10. Vaidyanathan, A. (1994). Performance of Indian Agriculture since Independence, Oxford University Press.
11. Bilgrami, S.A.R. (1996). Agricultural Economics, Himalaya Publishing House, Delhi.
12. Lekhi, R.K. and Singh, J. (2010). Agricultural Economics, Kalyani Publishers, New Delhi.

  
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## PUBLIC POLICY ANALYSIS

Code: BHE 315

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** The course will enable the student to understand the operations of public policy besides understanding the role of various stakeholders in policy formation and its effective implementation.

**Course Outcome:** This paper make students learn about the role of public policy in economic development. Its making, implementation, monitoring and evaluation.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit I: Introduction to Public Policy-** Nature, Scope and Significance of Public Policy; Types of Public Policy: Regulatory, Welfare, Distributive and Re-distributive; Evolution of Public Policy Studies– Public Policy Cycle, Models of Public Policy: Systems Model,

**Unit II: Public Policy Implementation-** Public Policy Delivery Agencies and Implementers: Aspects of Policy Design for Implementation, Modes of Policy Delivery and Implementers, Enforcement Modes; Problems in Public Policy Implementation: Conceptual, Political and Administrative Problems, Conditions for Successful Implementation

**Unit III: Public Policy Monitoring and Evaluation-** Policy Monitoring: Approaches and Techniques, Constraints in Policy Monitoring, Measures for Effective Policy Monitoring; Policy Evaluation: Role, Process and Criteria, Types of Evaluation, Evaluating Agencies, Problems in Policy Evaluation Unit.

**Unit IV: Public Policy in India-** Constitutional framework for Policy Making – Institutional Factors: Legislature, Executive, Judiciary, NITI Ayog – Other Forces in Policy Making: Public Opinion, Political Parties, Pressure Groups, Media and Professional Bodies - External Influencing Agencies.

### Suggested Readings:

1. Kumar De, P. (2012). Public Policy and Systems, Pearson Education India, New Delhi;
2. Sapru, R.K. (2010). Public Policy – Formulation, Implementation and Evaluation, Sterling Publishers Pvt. Limited., New Delhi;
3. Vaidyanatha Ayyar R.V. (2009). Public Policy Making in India, Pearson Education India, New Delhi;
4. N Dunn, W. (1994). Public Policy Analysis – An Introduction, Prentice Hall, New Jersey;
5. Dye, T. (1995). Understanding Public Policy, Prentice Hall, New Jersey;
6. Anderson, J. (2003). Public Policy Making: An Introduction, Houghton Mifflin.
7. Michael Hill and Peter Hupe (2002). Implementing Public Policy, Sage.



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## INTRODUCTORY ECONOMETRICS

Code: BHE-302

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** - The objective of this course is to acquaint the students with the basic tools of econometrics which students can apply while doing statistical analysis and applied research.

**Course Outcome:** Students will learn to estimate linear models using ordinary least squares and make inference about population parameters. They will also understand the biases created through mis-specified models, such as those that occur when variables are omitted.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The 9<sup>th</sup> question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit-I: Introduction to Econometrics:** Nature, Meaning, Scope and Methodology; Types of Econometrics Models: OLS with Assumptions, Estimation and Properties; Estimation of Regression with one and two Explanatory Variables;

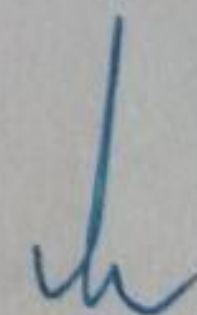
**Unit-II: Statistical Tests of Significance of the Estimates:** Tests of Goodness of Fit with  $R^2$  Adjusted  $R^2$ ; Sampling Distribution of the Least Square Estimates, Standard Error Test of Least Square Estimates, Confidence Interval of Least Square Estimates, Z test, T test.

**Unit-III: Econometric Problems:** Dummy Variables; Uses of Dummy Variables; Nature, Causes, Consequences of, Detection and Remedial Measure; of the Problems of Multicollinearity, Heteroscedasticity and Autocorrelation and their applications.

**Unit-IV: Test Procedures and Model Selection:** Econometric Modeling: Model Specification and Diagnostics testing; Tests of Specification and Mis-Specification, Error of Measurement; Measurement, Criteria for Model Selection,

### Suggested Readings:

1. Amemiya, T. (1985). Advanced Econometrics, Harvard university Press, Cambridge, Mass.
2. Dougherty, C. (2011). 4<sup>th</sup> ed. Introduction to Econometrics, Oxford University Press
3. Wiilliam, G. (2000). 5<sup>th</sup> ed. Econometrics Analysis. Prentice Hall.
4. Goldberder, A.S (1998). Introductory Econometrics, Harvard University Press, Cambridge.
5. Gujarati, D. (2002). 4<sup>th</sup> ed. Basic Econometrics, Mc Graw Hill.
6. Intrilligator, M.D. (1978). Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.
7. Johnson, J. (1991). Econometric Methods, Mcgraw Hall Book Co. London
8. Kmenta, J. (1998). Elements of Econometrics, University of Michigan Press, NewYork
9. Koutsoyiannis, A. (1977). Theory of Econometrics, The Macmillan Press Ltd. London
10. Wooldridge, J. (2014). 5<sup>th</sup> ed. Introduction to Econometric: A Modern Approach. Cengage Learning.
11. Patterrson Kerry.P (2000). An Introduction to Applied Econometrics, Vol.1, Oxford U.K, Blackwell Publishing.



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Somnath, Gujarat, India



## HISTORY OF ECONOMIC THOUGHT

Code: BHE-304

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This course would enable the student to understand how contemporary economics came to be what it is. The evolution of economic ideas in each instance was as much a response to immediate economic problems and policy issues as much as it was a self-conscious attempt to refine our understanding of economic phenomenon.

**Course Outcome:** Students will understand the evolution of economic thought over a period of time, the background of emanation of thoughts and approaches, as acts of balancing and counter balancing events and criticism besides the contributions of the Galaxy of Economists.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit-I: History of Economic Thought:** Early Period Economic thought: The Greek Thought: Plato and Aristotle; Roman thought; Islamic thought (Ibn Khaldun), Main Ideas of Mercantilism and Physiocracy.

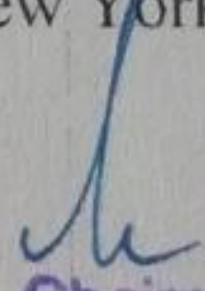
**Unit-II: Classical and Neo-classical Economic thoughts-** Economic thought of Adam Smith, Ricardo, Malthus and Mill; Robinson, Pigou, Karl Marx and J.M. Keynes (Effective Demand, MEC)

**Unit-III: Nobel Laureates in Economics-** Contributions of Nobel Laureates in Economics: Samuelson, Kuznets, Friedman, Amartya Sen-(Poverty); Economic thought of recent two Nobel Laureates.

**Unit-IV: Indian Economic Thought-** Kautilya, Thiruvallur, Naoroji, Gandhi; Mahalanobis, Vinobha Bhave, Din Dayal Upadhyay, Swaminathan.

### Suggested Readings:

1. Barber, W. (1977). A History of Economic Thought, Penguin Books.
2. Bell, John F. (1967). A History of Economic Thought, Ronald Press.
3. Black, R.D.C. (1986). Ideas in Economics, Barnes and Noble.
4. Blackhouse, R. (1985). A History of Modern Economic Analysis, Basil Blackwell, Oxford.
5. Blaug, M. (1992). Economic Theory in Retrospect, Cambridge University Press.
6. Dasgupta, A. K. (1986). Epochs of Economic Theory, Oxford University Press New Delhi.
7. Ganguli, B.N. (1977). Indian Economic Thought: A 19th Century Perspective, Tata McGraw Hill, New Delhi;
8. Gide, C. and G. Rist (1956). 2<sup>nd</sup> ed. A History of Economic Doctrines. George Harrop & Co., London;
9. Grey, A. and A.E. Thomson (1980). 2<sup>nd</sup> ed. The Development of Economic Doctrine. Longman Group, London;
10. Kautilya (1992). The Arthashastra, Edited, Rearranged, Translated and Introduced by L.N. Rangarajan, Penguin Books, New Delhi;
11. Paul .R.R, History of Economic Thought. Kalyani publication, New Delhi.
12. Roll, E. (1973). A History of Economic Thought, Faber, London.
13. Schumpeter, J.A. (1954). History of Economic Analysis, Oxford University Press, New York;
14. Seshadri, G.B. (1997). Economic Doctrines, B.R. Publishing Corporation, Delhi.

  
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## RESEARCH REPORT

Code: BHE-306

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This paper is designed to acquaint student about the skill of report writing in addition to application of various statistical and econometrics tools.

**Course Outcome:** The skill of the students will be enhanced in report writing besides the use of various tool and techniques report on data collected or mined by them.

**Instructions for Examiners and Examinees:** All the students of 6<sup>th</sup> Semester are required to write a research report on topics approved by Departmental Committee/Staff Council and three copies of the same must be submitted by 31st March of the every academic year. The research report can be submitted with a late fee of ₹ 1000/- with the permission of the chairperson till 15<sup>th</sup> April of every academic year.

**Note:** The Research Report will be submitted on prescribed format and will contain 40-50 pages including references and annexures etc.

**Evaluation:** The Research Report will be jointly evaluated by the external and internal examiner based on viva-voce in the last week of April every year.

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**TERM PAPER-II**

**Code: BHE-308**

**Max. Marks: 50**

**External: 40**


**Internal: 10**

**Course Objective:** This paper is designed to analyze the comprehensive knowledge and understanding of the subjects acquired through out the total degree span through Group Discussions/Quiz contests/ Opinion Polls.

**Course Outcome:** The students will be able to participate skillfully in Group Discussions/Quiz/ Opinion Polls related to various socio-economic and environmental issues.

**Task:** The students will be given topics for discussion, quiz, opinion etc. for discussion and presentation in the class. The students will also make activity file.

**Evaluation:** The term paper is jointly evaluated by the external and internal examiner based on viva-voce in the first week of April every year.

  
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## ADVANCED STATISTICS

Code: BHE-310

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** The emphasis of this paper is on understanding economic concepts with the help of statistical methods rather than learning statistics itself. The paper also deals with simple tools and techniques and drawing inferences about various statistical hypotheses.

**Course Outcome:** At the end of the course, the students will learn the concept of correlation and regression analysis, probability distributions and Hypothesis testing as well as statistical inference analysis. They will also be able to estimate population parameters based on random samples and test hypotheses about these parameters.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit I: Skewness, Kurtosis and Moments:** Skewness: Meaning, Skewness and Frequency Distribution, Difference between Dispersion and Skewness, Tests of Skewness, Measures of Skewness: Absolute and Relative Measure – Karl Pearson, Bowley's, Kelly Method; Moments- Definition, Utility, Kurtosis –Types, Measures of Kurtosis.

**Unit II: Correlation and Regression-** Partial and Multiple Correlations; Regression Estimation of Growth rate; Forecasting with OLS; Statistical Estimation Theory.

**Unit III: Probability-** Basic Concepts, Addition and Multiplication; Bayes Theorem Theoretical Probability Distribution: Binomial, Poisson and Normal Distribution.

**Unit IV: Hypothesis Testing-** Null hypothesis, Alternative hypothesis, Simple and Complex Hypothesis, Standard Error: Type-I and type-II; Level of Significance, Critical Region; Large and Small Sample Test: t, F, Z Tests and Chi- Square Test. ANOVA (One Way and Two Way)

### Suggested Readings:

1. Nagar A.L. and Das R.K. (1997). 2<sup>nd</sup> ed. Basic Statistics, Oxford University Press, New Delhi.
2. Gupta S.P. (2014). 43<sup>rd</sup> ed. Statistical Methods, Sultan Chand and Sons, New Delhi.
3. Spiegel, M.R (1992). 3<sup>rd</sup> ed. Theory and Problems of Statistics. McGraw Hill Publication London.
4. Croxton, F.E., Cowden, D.J and Klein, S.K (1973). Applied General Statistics. Prentice Hall, New Delhi.
5. Yates, Frank, Sampling Methods for Censuses and Surveys, Charles, Griffin Co., London.
6. Cochran, W. G., Sampling Techniques, John Willey, New York.
7. Hansen, Hurditz and Meadow, Sample Survey Methods and Theory, John Willey New York.
8. Gupta S. C. and Gupta I. (2018). 2<sup>nd</sup> ed. Fundamentals of Statistics, Himalaya Publishing House, New Delhi



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## ADVANCED ECONOMETRICS

Code: BHE-312

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** - The objective of this course is to acquaint the students with the econometrics methods which have proved particularly useful for understanding the interrelationship between various economic disciplines as Mathematics, Statistics and Economic Theory.

**Course Outcome:** This course will enable students to learn about applied econometric analysis and develop skills required for empirical research in economics besides the gaining knowledge of specification analysis and selection of regression models, dynamic econometric models, advanced methods in regression analysis and panel data models.

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The 9<sup>th</sup> question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit-I: Auto-Regressive and Distributed Lag Models**--Almon Approach to Distributed Lag Models; Koyak's Model, Partial Adjustment Model; Adaptive Expectations ; Instrumental Variable, Error Correlation Mechanism, Causality Test, Granger Test and Sim's Test.

**Unit-II: Simultaneous Equation**- Simultaneous Equation Bias and Inconsistency of OLS Estimators; Identification Problem; Rule of Identification-Order and Rank Condition; Reduced form and Recursive Models; ILS (Indirect Least Squares); Two Stage Least Square (2SLS); Three Stage Least Square (3SLS) Limited Information Maximum Likelihood (LIML); Model of Simultaneous-Structural Model.

**Unit-III: Time Series Analysis**- Stationary and Non Stationary Process, Random Walk Model with Drift and without Drift, Unit Root Stochastic Process, Trend Stationary and Difference Stationary, Stochastic Process, Concept of Integration, Spurious Regression, Unit Root Test Regression Dickey Fuller test, Forecasting with ARIMA Modelling; Dummy Variables in Dependent Variables: LPM, Logit, Probit, Tobit Model.

**Unit-IV: Estimation and Interpretation of Function**- Production Function: Introduction to Cobb Douglas, CES, Estimation Interpretation, and problems; Demand and Cost function. Panel Data Techniques: Random Coefficient Model, Fixed Effect Model, Random Effect Model.

### Suggested Readings

1. Amemiya, T. (1985). Advanced Econometrics, Harvard University Press, Cambridge, Mass.
2. Dougherty, C. (2011). 4<sup>th</sup> ed. Introduction to Econometrics, Oxford University Press
3. Wiilliam, G. (2000). 5<sup>th</sup> ed. Econometrics Analysis. Prentice Hall.
4. Goldberder, A.S (1998). Introductory Econometrics, Harvard University Press, Cambridge.
5. Gujarati, D. (2002). 4<sup>th</sup> ed. Basic Econometrics, Mc Graw Hill.
6. Intrilligator, M.D. (1978). Econometric Methods, Techniques and Applications, Prentice Hall Englewood Cliffs, New Jersey.
7. Johnson, J. (1991). Econometric Methods, Mcgraw Hall Book Co. London
8. Kmenta, J. (1998). Elements of Econometrics, University of Michigan Press, NewYork
9. Koutsoyiannis, A. (1977). Theory of Econometrics, The Macmillan Press Ltd. London
10. Wooldridge, J. (2014). 5<sup>th</sup> ed. Introduction to Econometric: A Modern Approach. Cengage Learning.

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## BEHAVIOURAL ECONOMICS

Code: BHE-314

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This course will provide students with a clear introduction to the principles and methods of Behavioral Economics. Behavioral economics considers the ways that people are more social, more impulsive, less adept at using information, and more susceptible to psychological biases than the standard economic models assume

**Course Outcome:** Students will learn about the effects of psychological, cognitive emotional, cultural and social factors on the economic decisions of individuals and institutions and how those decisions vary from those implied by classical theory

**Instructions for Examiners and Examinees:** *There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.*

**Unit I: Introduction to the Themes and Methods of Behavioral Economics:** History and Evolution of Behavioral Economics, Relationship of Behavioral Economics with Other Disciplines; Objectives, Scope and Structure of Behavioral Economics; The Methodology regarding Theories and Evidence.

**Unit II: Values, Preference, Choices, Beliefs, Heuristics and Biases:** The Standard Model; Axioms, Assumptions and Definitions; Evolutionary Biology of Utility; Broadening Rationality and Types of Utility.

**Unit III: Consumer Behavior:** Decision Making under Risk and Uncertainty: Conventional Approach; Prospect Theory; Shape of Utility Function, Decision-Weighting; Loss-Aversion; Measurement of Endowment Effect: The Theory of Nudges, and Happiness as an Outcome.

**Unit IV: Mental Accounting:** Framing and Editing; Budgeting and Fungibility; Choice Bracketing and Dynamics, Discounted Utility Model, Alternative Inter-Temporal Choice Models: Time Preference, Time Inconsistent Preference; Modifying the Instantaneous Utility Function.

### Suggested Readings:

1. Wilkinson, Nick and Matthias Klaes (2012). An Introduction to Behavioral Economics.
2. Richard H. Thaler, Misbehaving (2016). The Making of Behavioral Economics. Palgrave Macmillan.
3. Akerlof G. and Shiller R. Animal Spirits (2009). Princeton University Press.
4. Akerlof G. (2001). Behavioral Macroeconomics and Macroeconomic Behaviour, Nobel Prize Lecture.
5. Kahneman, Daniel, Paul Slovic, and Amos Tversky (1982). Judgment under Uncertainty: Heuristics and Biases, Cambridge University Press.
6. Kahneman, Daniel and Amos Tversky (eds.) (2000). Choices, Values and Frames, New York: Russell Sage Foundation: Cambridge University Press.
7. Ross, Lee and Richard E. Nisbett. (1991). The Person and the Situation: Perspectives of Social Psychology, Philadelphia: Temple University Press.
8. Cialdini, Robert B. (1993). Influence, the Psychology of Persuasion, New York: William Morrow Publishing Co.
9. Kahneman, Daniel. (2011). Thinking, Fast and Slow, New York: Farrar, Straus and Giroux.
10. Bazerman, Max and Don Moore. (2012). 8<sup>th</sup>ed. Judgment in Managerial Decision Making. John Wiley & Sons.

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## FINANCIAL ECONOMICS

Code: BHE-316

Time: 3 Hrs.

Max. Marks: 100

External: 80

Internal: 20

**Course Objective:** This course provides a strong theoretical foundation and an economic framework to understand the economics finance.

**Course Outcome:** Students will learn about the economics of finance and its applications in various fields besides more understanding of portfolio analysis, capital market and its functioning.

**Instructions for Examiners and Examinees:** There will be 9 questions in all. The last question is compulsory consisting of 8 short answer type questions (30-35 words) of 2 marks each, set from the whole syllabus. The remaining 8 questions shall be from the four units, i.e., 2 questions from each of the four units of 16 marks each. The examinees have to attempt one question from each unit besides the compulsory question.

**Unit I: Basic theory of Interest;** Discounting and Present value; Internal Rate of Return; Evaluation Criteria; Fixed-Income Securities; Bond Prices and Yields; Interest Rate Sensitivity and Duration; Immunization; the Term Structure of Interest Rates; Yield Curves; Spot rates and Forward rates.

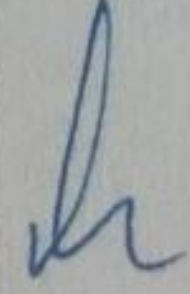
**Unit II: Portfolio Analysis** (Single-period random cash flows): Random Asset Returns; Portfolios of Assets; Portfolio Mean and Variance; Feasible Combinations of Mean and Variance; Mean-Variance Portfolio Analysis: the Markowitz Model and the Two-fund Theorem; Risk-free Assets and the one-Fund Theorem.

**Unit III: CAPM-** The Capital Market Line; the Capital Asset Pricing Model; The Beta of an Asset and of a Portfolio; Security Market Line; use of the CAPM model in investment analysis and as a pricing formula.

**Unit IV: Options and Derivatives-** Introduction to Derivatives and Options; Forward and Futures Contracts; Options; Forward and Future Prices; Stock Index Futures; Interest Rate Futures; The Use of Futures for Hedging.

### Suggested Readings:

1. David G. Luenberger (1997), Investment Science, Oxford University Press, USA.
2. Hull, John C. (2005). 6<sup>th</sup> ed. Options, Futures and Other Derivatives, Pearson Education.
3. Thomas E. Copeland, J. Fred Weston and Kuldeep Shastri, (2003). 4<sup>th</sup> ed. Financial Theory and Corporate Policy, Prentice Hall.
4. Richard A. Brealey and Stewart C. Myers, (2002). 7<sup>th</sup>ed. Principles of Corporate Finance, McGraw- Hill.
5. Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan (2005). 7<sup>th</sup> ed. Fundamentals of Corporate Finance. McGraw-Hill.
6. Burton G. Malkiel (2003). A Random Walk Down Wall Street, W.W. Norton & Company.
7. William, S. (2003). 6<sup>th</sup> ed. Gordon Alexander and Jeffery Bailey, Investments, Prentice Hall of India.
8. Hull, J. and Basu, B. (2017) 9<sup>th</sup> ed. Options, Futures, and Other Derivatives, Pearson Education.
9. Luenberger D. (2015). Investment Science, Indian edition.

  
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