

# Veer Narmad South Gujarat University, Surat

## Structure of M.A. (Economics)

No	Course Code	Name of the course	Credits
1	CC-01	MICRO ECONOMICS – 1	4
2	CC-02	MACRO ECONOMICS – 1	4
3	CC-03	QUANTITATIVE METHODS FOR ECONOMICS-1	4
4	EC-01	INDUSTRIAL ECONOMICS-1/AGRICULTURAL ECONOMICS.-1/ ECONOMICS OF HUMAN RESOURCES (EDUCATION) -1 / ECONOMETRICS-1	4
5	ID-01	AGRIBUSINESS/ RESEARCH METHODOLOGY– 1	4
6	SOC-01	TERM PAPER-1	2
<b>Total</b>			<b>22</b>

No	Course Code	Name of the course	Credits
1	CC-04	MICRO ECONOMICS – 2	4
2	CC-05	MACRO ECONOMICS – 2	4
3	CC-06	QUANTITATIVE METHODS FOR ECONOMICS-2	4
4	EC-02	INDUSTRIAL ECONOMICS-2/ AGRICULTURAL ECONOMICS.-2/ ECONOMICS OF HUMAN RESOURCES (HEALTH) -1 / ECONOMETRICS-2	4
5	ID-02	FUNDAMENTALS OF ACCOUNTANCY/ INDIAN POLITICAL SYSTEM	4
6	SOC-02	TERM PAPER-2	2
<b>Total</b>			<b>22</b>

Veer Narmad South Gujarat University

Faculty of Arts

Syllabus for M.A. Semester-I (Economics)

Effective from the year 2016-2017

CC-01 Micro Economics-I

• PREAMBLE

This paper analyses the economic behaviour of individuals, firms and markets. It is mainly concerned with the objective of equipping the students in a rigorous and comprehensive manner with the various aspects of consumers' behaviour and demand analysis, production theory and concepts of costs, the theory of traditional markets and equilibrium of firm in modern non-profit maximizing framework. The paper also deals with the micro and macro theories of distribution, welfare economics, general equilibrium in closed and open systems and analysis of economic behaviour under uncertainty.

Weightage

**Unit-1 Demand Analysis**

25%

- Theory of Demand- Utility-law of diminishing marginal utility
- Indifference curve- Income and substitution effects, slusky theorem
- Revealed preference theory
- Revision of demand theory of Hicks
- Characteristics of goods approach
- Consumer's choice under risk

**Unit-2 Theory of production and costs.**

25%

- Production function
- Law of variable proportions and returns scale
- Isoquants- least cost combination of inputs
- Economics of scale
- Multi product firm
- Cobb-Douglas, CES Traditional and modern theories of cost-empirical evidence
- Derivation of cost functions from production functions
- Derived demand for factors

**Unit-3 : Game Theory** 25%

- Meaning of Game
- Payoff Matrix
- Nash equilibrium
- Mixed strategies
- The prisoner's Dilemma
- Repeated games
- Sequential games

**Unit-4 : Price and output Determination** 25 %

- Marginal Analysis as an approach to price and output determination
- Perfect competition- short and long run equilibrium of the firm and industry, price and output determination, supply curve
- Monopoly- Short run and long run equilibrium, price determination, welfare aspects, monopoly control and regulation

\* References :-

1. Kreps, David M (1990), A Course in Microeconomics Theory, Princeton University Press, Princeton.
2. Koutsoyianis A. (1979), Modern Microeconomics. (2<sup>nd</sup> Edition), Macmillan Press, London.
3. Layard, P.R.G. and A.W. Walters (1978), Microeconomic Theory, MacGraw Hill, New York.
4. Sen A. (1999), Microeconomics: Theory and application, Oxford University Press, New Delhi.
5. Stigler, (1996), Theory of Price, (4<sup>th</sup> Edition), Prentice Hall of India, New Delhi.
6. Varian, H.R. (2006), International Microeconomics, A Modern Approach, W.W. Norton, (EWP)
7. Baumol, W.J. (1982), Economics Theory and Operations analysis, Prentice Hall of India, New Delhi.
8. Hirshleifer, J and A Glazer. (1997), Price Theory and Applications, Prentice Hall of India, New Delhi
9. Henderson, J.M. and R.E. Quandt (1980), Micro Economic Theory: A Mathematical Approach, McGraw Hill, New Delhi.
10. Da Costa, G.C. (1980), Production, Prices and Distribution, Tata McGraw Hill, New Delhi.
11. Archibald, G.C. (Ed.) (1971), Theory of the firm, Pengiun, Harmondsworth.
12. Bain, J. (1958), Barriers to New Competition, Harvard University Press, Harvard.
13. Bronfenbrenner, M.(1979), Income Distribution Theory, MacMillian, London.
14. Broadway, R.W. and N.Bruce (1984) Welfare Economics, Basil Blackwell , London.
15. Graff, J.De.v. (1957), Theoretical Welfare Economics, Cambridge University Press, Cambridge.
16. Mishan E.J. (1969), Welfare Economics, an Assessment, North Holland, Amsterdam.
17. Weintrub, É.R. (1974), General Equilibrium Theory, Macmillian, London.
18. Borch K.H. (1968), the Economics of Uncertainty, Princeton University Press, Princeton.
19. Diamond and Rothschild (Eds.) (1970), Uncertainty in Economics, Academics Press, New York.

## M.A. Sem – I

### CC-02 , Macro Economics : I ,

#### Unit 1 : Nation Income and Social Accounting [25%]

- Concept, importance, methods for calculations, limitations
- Circular flow of income – two ,three and four sectoreconomy
- Social accounting – concept, importance.
- House hold, firms , government, capital account

#### Unit 2 : Inflation & Deflation [25%]

- Demand pull and cost push inflation, inflationary and deflationary gap
- Phillips curve hypothesis, short run- long run Phillips curve, natural rate of unemployment hypothesis
- Stagflation –causes and measures. Friedman-Phelps model of stagflation
- Control of inflation

#### Unit 3 : Demand for money and supply of money [25%]

- Demand for money – concept , classical , Cambridge , Keynesian , Post Keynesian approaches
- Supply of money – concept , RBI approach to money supply , factors affecting money supply
- High powered money and money multiplier

#### Unit 4 : Rate of interest and policies [25%]

- Rate of interest - Concept, types.
- Theories : Classical , Cambridge , Keynes
- Macroeconomic policy –meaning, importance, objectives, instruments, limitations.

## REFERENCES :- MacroEconomics

1. Acharya Shankar: (2008) Essays on macroeconomic policy and growth in India. Oxford University press.
2. Agrawal V. (2010) Macro Economics: Theory and Policy, Dorling Kindersley (India) Pvt. Ltd.
3. Chick, V. (1977), The Theory of Monetary Policy, 2<sup>nd</sup> Ed. Basil Blackwell
4. Culbertson, J.M. (1971), Macroeconomic Theory and stabilization policy, McGraw-Hill, London.
5. Froyen, Richard (1998), Macroeconomics, Prentice Hall, International Editions.
6. Gupta G S: (2008) Macro Economics – Theory and Application, Tata McGraw Hill publication Company Limited, New Delhi.
7. Gupta G S: (2008), Macroeconomics: Theory and applications, Tata McGraw Hill, New Delhi.
8. Gupta S B :( 2005) Monetary Economics, Vikas Publishing House.
9. Harris Laurence: (1985) Monetary Theory. McGraw Hill, International edition.
10. Hajela T N: (2009) Macro Economic Theory, Ane book Pvt. Ltd., New Delhi
11. Jhingan M L(2010)12<sup>th</sup> edition, Macro Economic Theory,Vindra Publication ,Delhi
12. Mithani D M: (2005) Money, Banking International Trade, Public Finance, Himalaya publishing House New Delhi.
13. Money and Banking (2005) – The ICFAI University, Hyderabad.
14. Mukharjee Sampat: (1995) Modern Economic Theory. Wishwa prakashan New Delhi.
15. Samuelson Paul: (1997): Economics, Tata McGraw Hill, 17th Edition.
16. Reserve Bank of India, Bulletins.
17. Economics Survey, Government of India,

## SEMESTER - I

### CC- 03 QUANTITATIVE METHODS FOR ECONOMICS - I

1. **Introduction to Statistics & Measures of Central Tendency** [25%]  
Statistics: Measures of Central Tendency:  
Mean Median, Mode, Their Merits and Demerits.
2. **Dispersion and Skewness** [25%]  
Range; Mean Deviation, Variance, Standard Deviation, Properties and their merits and Demerits - Coefficient of Variation its uses. Skewness - examples
3. **Limit and Equations** [25%]  
Limit of function – Rules. Equations - Linear, Quadratic and Simultaneous- Their applications in Economics.
4. **Functions** [25%]  
Various types of functions, functions used in Economic Linear and quadratic functions- Graph, interpretation of parameters-applications- Homogeneous function- applications.

#### References: (for Statistics)

1. A L Nagar And R K Das (1983): Basic Statistics, Oxford University Press, New Delhi, 2<sup>nd</sup> Ed.
2. Chandan J (1998): Statistics for Business and Economics, Vikas Publishing House, New Delhi
3. Dave M.B , Pandya K, Gaurang rami and Dilip Varsani ( 2014-15) *Quantitative Methods of Economics*, Popular, Surat (Gujarati)
4. G S Monga (2000): *Mathematics And Statistics For Economics*, Vikas Publishing House, New Delhi, 2<sup>nd</sup> Ed.
5. G V Shenoy & Late.Madan Pant (1994) *Statistical Methods In Business And Social Sciences*, Macmillan India Pvt. Ltd,New Delhi
6. Jaiswal M.C.; (1974) *Arthvishayak Ankadashastra, Uni. Granthnirman Board, Ahmedabad* (Gujarati)
7. K K Sharma & Sukhpal Singh (2000): *Introductory Economic Theory And Elementary Statistics*, Abhishek Publications, Chandigarh
8. Michael C Fleming & Joseph G Nellis(1997) : *The Essence Of Statistics For Business*, Prentice Hall of India Pvt. Ltd.,New Delhi,2<sup>nd</sup> Ed.
9. Nagar A L (1997): *Basic Statistics*, Oxford University Press, New Delhi,15<sup>th</sup> Ed.
10. Patel Balubhai; *Dhandhakiya Ankadashastra, Uni. Granthnirman Board, Ahmedabad.* (Gujarati)
11. Patel R.K. & Patel L.B.; *Business Statistic*, C. Jamanadas Co. Ahmedabad. (Gujarati)
12. R H Hooda (2000): *Statistics For Business and Economics*, Macmillan India Pvt.Ltd.,New Delhi
13. Richard I Levin & David S Rubin (2000) *Statistics For Management*, Prentice Hall of India Ltd, 7<sup>th</sup> Ed.

14. Richard J. Larsen and Morris L. Marx, An Introduction to Mathematical Statistics and its Applications, Prentice Hall, 2011.
15. Zala M.L.; (1996) *Arthshastrama Ganitshastra, Purbiti Prakashan, Vallabh Vidyanagar.* (Gujarati)

**References: (for Mathematics)**

1. A S Ramsastri (2000): Quantitative Methods for Valuation of Financial Assets, Response Books, New Delhi.
2. Anthony & Biggs (2000) : Mathematics For Economics and Finance, Cambridge Uni. Press
3. Berry Tanuj (1994): Mathematical Methods For Economists, Archetypal Publications, New Delhi
4. Edward T Dowling (1992): Theory and Problems of Introduction Mathematical Economics Schaum's Outline Series Mcgraw-Hill, New York.
5. Edward T Dowling(2001): Mathematical Methods For Business and Economics, Schaum. Outline Series Mcgraw-Hill, New York.
6. F M Wilkes (1999) : Mathematics For Business Finance and Economics, International Thomson Business Press, London; 2<sup>nd</sup> ed.
7. G S Monga (2000): Mathematics And Statistics For Economics, Vikash Publications, New Delhi 2<sup>nd</sup> ed.
8. H A Spooner & D A L Wilson (1997): The Essence of Mathematics For Business, Prentice Hall of India Pvt Ltd, New Delhi
9. Hooda R P (1994): Statistics for Business and Economics, Macmillan ., New Delhi
10. Martin Anthony And Norman Biggs (2000): Mathematics For Economics And Finance Methods and Modeling, Cambridge University Press, New York, 3<sup>rd</sup> Ed
11. R G D Allan (2000) : Mathematical Analysis For Economists, Macmillan, Delhi, 7<sup>th</sup> Ed.
12. R S Bharadwaj (2000): Mathematics For Economics and Business, Excel Books, New Delhi
16. Siegel S (1956) Nonparametric Statistics, Tata Mcgraw-Hill, New York

M.A. sem – I

**EC-01, Industrial Economics : I**

**Unit 1 : Scope and Subject matter of Industrial Economics**

**[25%]**

- Introduction – definition , scope of industrial economics
- Concept and types of firm
- Private proprietorship , partnership firms , corporate firms , multinational firms
- Objective of firms – Baumol, Yarrow, Williamson model
- Structure – conduct, performance of the firm

**Unit 2 : Market structure**

**[25%]**

- Seller's concentration
- Product differentiation
- Entry condition
- Economies of scale
- Market structure and profitability
- Market structure and innovation

**Unit 3 : Market Conduct**

**[25%]**

- Product pricing – marginal, average and cost plus theories
- Definition , types , importance of merger , Factors affecting mergers
- Theories of merger and acquisition, empirical evidence
- Investment expenditure – methods of evaluating investment expenditure
- Location theory : Weber, Sargent, Florence . Factors affecting location

**Unit 4 : Market Performance**

**[25%]**

- Theories of growth of firm
- Marris model
- Constraints of growth
- Productivity- meaning , measurement , factors affecting productivity

## References: Industrial Economics

1. Ahluwalia, I. j. (1985), *Industrial Growth in Indian*, Oxford University Press, New Delhi
2. Barthwala, R. R. (1994), *Industrial Economics*, Wiley Eastern Ltd, New Delhi.
3. Bernadette Anderson, David Jacobson (2005) *Industrial Economics and Organisation*. McGraw-Hill Publishers
4. Cherunilam, F. *Industrial Economics, Indian Perspective (3rd) Edition* Himalaya Publishing House, Mumbai.
5. Desai B (1999), *Industrial Economics, Indian (3rd) Edition* Himalaya Publishing House, Mumbai.
6. Divine P. j. and R. M. Jones ct. Al. (1996) *An Introduction to Industrial Economics*, George Allen and Unwin Ltd, London.
7. Government of India, *Economics Survey (Annual)*
8. Hay, D. and D. j. Morris, (1979), *Industrial Economics, Theory of Evidence*, Oxford University Press, New Delhi.
9. Kuchhal S.C. (1980), *Industrial Economics, Indian (5rd) Edition* Chaitany Publishing House, Allahbad.
10. Reserve Bank of India, *Report on Currency and Finance (Annual)*
11. Singh A. and A.N. Sadhu (1988), *Industrial Economics*, Himalaya Publishing House, Mumbai.
12. Bains, J. S. (1996), *Industrial Organization*, Cheltenham, U. k.
13. Harndeen, J.B. (1975), *The Economics of Corporate Economy*, Dunelle Publishers, New York.
14. Wiles P.G.D. (1963), *Price, Cost, and Output*, Praeger, New York.
15. Brahmaananda, P. R. and V.R. Panchamukhi (Eds.). (1987), *The Development Process of The Indian Economy*, Himalaya Publishing House, Bombay.
16. Chakravarty, S. (1987), *Development Planning. The Indian Experience*, Oxford University Press, New Delhi.
17. Dhameeja, N. and K.S. (1998), *Privatization. Theory and Practice*, A. F. Wheeler New Delhi.
18. Jalan, B. (1996), *India' Economic Policy*, Viking, Mew Delhi
19. Joshi, V and I.M D.Little (1999) *India : Macro Economics and Political Economic 1964-1991*, Oxford University Press, New Delhi.
20. Sandesara, J.C. (1992), *Industrial Policy and Planning -1947-1991. Tendencies*
21. *Interpretations and Issues*, Sage Publication, India Pvt. Ltd New Delhi.
22. Gupta, L.C. (1969) *The Changing Structure of Industrial Finance in India*, Oxford University Press, New Delhi
23. Khan, M.Y. (1981) *Indian Financial Systems*, Allied Publishers, New Delhi.

## SEMESTER - I

### EC- 01 AGRICULTURAL ECONOMICS - I

#### **1: Introduction to Agricultural Economics [25%]**

Nature and Scope of Agricultural Economics – Role of Agriculture in Economic Development – Special Characteristics of the Primary Sector – Interdependence Between Agriculture and the Rest of the Economy.– Agricultural Statistics in India: Coverage, Sources and Reliability.

#### **2: Models of Agricultural Development [25%]**

Transformation of Traditional Agriculture : The Schultzian Theory – Mellor's Theory of Agricultural Development – Boserup's Theory of Agricultural Development – Lewis Model of Economic Development – Ranis-Fei Model of Economic Development – Nelson's Low Level Equilibrium Trap Theory.

#### **3: Analysis of Agricultural Market & the Economics of Agricultural Production [25%]**

Introduction – Economics of Market Demand – Basic Demand Relationship – The Market Demand Curve – The Market Demand Function – Shifts in Market Demand Curve – Elasticities of Demand – Role of Intermediaries – Factor of Effect Agricultural Production and Demand. Agricultural Production Function – Input - Output Relationship – Factor - Factor Relationship and Product-Product Relationships – Farm Budgeting.

#### **4: Topic of Production Economics; Cost & Farm Management [25%]**

Introduction – Efficiency of Resource use – Technical, Allocative and Economic Efficiency – Technological Change – Adoption & Diffusion of New Technology – Risk and Uncertainty – Duality - Cost Concept – Farm Management. Farming Organisation: Corporate Agriculture – Contract Farming - Farm size and Productivity Debate

#### References:

1. Bhaduri, A. (1984), *The Economic Structure of Backward Agriculture*, Macmillan, Delhi.
2. Bilgrami, S.A.R. (1996), *Agricultural Economics*, Himalaya Publishing House, Delhi.
3. Bilgrami, S.A.R. (1996), "An Introduction to Agricultural Eco.", Himalaya, New Delhi.
4. Chaudhary, P. (1972), "Reading in Indian Agricultural Development", Gerge Allen & Unwin, London.
5. Cohen, R., "The Economics of Agriculture", Cambridge University Press.
6. Dantwala, M.L. (1996), "Dilemmas of Growth The Indian Experience", Sage Pub., Delhi.
7. Dantwala, M.L. et.al (1991), *Indian Agricultural Development Since Independence*, Oxford & IBH, New Delhi.
8. Desai S. A. and Vansiya Yogesh N. (2013), "Agriculture Economics-I", New Popular Prakashan, Surat.
9. Ghstak, S. and K.Ingerscent (1984), "Agriculture and Economic development Select books", New Delhi.
10. Government of India (1976), *Report of the National Commission on agriculture*, New Delhi.
11. Government of India, *Economic Survey (Annual)*, New Delhi.
12. Gulati, A. and T. Kelly (1999), *Trade Liberalisation and Indian Agriculture*, Oxford University Press, New Delhi.
13. Heady E.O. and J.Dhillon, "Agricultural Production Functions", Kalayni
14. Heady E.O., "Economics of Agricultural Production and Resource use", PHI Learning
15. Joshi B.H. (1992), "An Analytical Approach to Problems of Indian Agriculture : A Theoretical and System Approach", B.R. Publishing Corporation, Delhi.
16. Joshi G.N. (1992), "A Study of Resource Transfers from Agriculture", Commonwealth Publishers, New Delhi.
17. Joshi, P.C. (1975), *Land Reforms in India: Trends and Prospects*, Allied Publishers, Bombay.
18. Kahlon, A.S. and Tyagi D.S. (1983), *Agriculture Price Policy in India*, Allied Publishers, New Delhi.
19. R.G.Desai, (2001), "Agriculture Eco.Models Problem and Policy Issue", Himalaya Publishing House, Mumbai.
20. Rao, C.H. Hanumantha (1975), *Agricultural Growth, Rural Poverty and Environmental Degradation in India*, Oxford University Press, New Delhi.
21. Rao, C.H. (1979), "Farm Size, Resource Use Efficiency and Income Distribution", Allied Publishers, New Delhi.
22. Rao, C.H. Hanumantha (1994), "Agricultural Growth, Rural Poverty and Enivronmental Degradation in India", Oxford University Press, New Delhi
23. Reserve Bank of India, *Report on Currency and Finance (Annual)*, Mumbai.
24. Rudra, A. (1982), *Indian Agricultural Economics : Myths and Reality*, Allied Publishers, New Delhi.
25. Saini, G.R. (1979), *Farm Size, Resource Use Efficiency and Income Distribution*, Allied Publishers, New Delhi
26. Desai S. A. & Vansiya Y.N. (2013), "Agriculture Economics", Popular Prakashan, Surat.
27. Schultz, T.W., "The Economics Organisation of Agriculture", McGraw Hill
28. Soni R N. (2009), "Agricultural Economics (Leading Issues in Agricultural Economics)", Vishal Publlishing Co. Jalandhar.
29. Srivastara A K.; Chand Mahesh, (1978), *Economics Analysis and Management in Agriculture*, Oriental Publishers & Distributor. Allahabad.
30. Thamarajakshi R. (1994), "Inter sect oral Relationship in a Developing Economy", Academic Foundation, Delhi

## SEMESTER -I

### EC- 01 ECONOMICS OF HUMAN RESOURCES (EDUCATION) - I

#### 1: Concept of Human Capital and Human Resources

[10]

Concept of human resources and human capital - Characteristics of Human capital - Human capital versus physical capital - Measure of Human Capital and Methods - Human and other forms of capital - Evolution of the concept of Human Development Index - Other indices related to human development - Sustainable Development Goals and UN - Multidimensional Poverty Index.

#### 2: Education and economic development [10]

Investment in Education - Returns of investment in Education - (Benefits of taxation, public cost of education. Private and public returns to education- Evaluating Educational investments - Costs and benefits of education - Issues regarding the measurement of costs and benefits- Social and private costs - Types of training - general v/s specific - on the job training - determinants of On-the-job-training - costs of training

#### 3: Human resources development

[10]

Indicators of Human resources development - Educational indicators - Planning for Human resources - Objectives and strategy - Manpower assessment and forecasting - Techniques and methods of manpower assessment - Brain-drain - Concept, Magnitude, classification and factors affecting the brain-drain -

#### 4: Educational Finance

[10]

Educational Finance ; trends in Growth and financing of education - Challenges faced (Access, equity, privatization - Sources and state of Educational finances - Funding of higher education - State v/s private funding - factors affecting - Educational reforms and About National Knowledge Commission - WTO and challenges for Reforms in Education - Education during Plan Period

#### References:

1. Ansari, M.M.(1987) Education and Economic Development, New Delhi, AIU Publication.
2. Bhattacharya, R. N. (Ed.) (2001), Environmental Economics : An Indian Perspective, Oxford University Press, New Delhi.
3. Blaug, M. (1970). An Introduction to Economics of Education, Cambridge University Press, Cambridge.
4. Blaug, M. (1972), Introduction to Economics of Education, Penguin, London.
5. Blaug, Mark (1987) Economics of Education & the Education of an Economist New York, University Press.
6. Blaug Mark (1980) An Introduction to Economics of Education. Penguin Books Ltd., England.

8. Garg, V.P.(1985) The Cost Analysis in Higher Education, Metropolitan Book Co., New Delhi.
9. Harbison & Myers (1968) Education, Manpower and Economics growth, Oxford & IBH. New Delhi,
10. Kneller, G. F. Education & Economic Growth, New York, John Wiley, 1968.
11. Mehta, M.M (1976): Human Resources Development Planning - With special Reference to Asia and Far-east; MacMillan, Delhi
12. Nagpal C.S. & Mittal A.C.(eds)(1993)Economics of Education, Anmol Publications,New Delhi
13. Pandit, H. N Measurement of cost Productivity & Efficiency of Education, NCERT, 1969 New Delhi
14. Prakash S & Choudhury, S (1994). Expenditure on Education: Theory, Models And Growth, NIEPA Delhi,
15. Pscharopoulos, G. &Woodhall, M(1985)Education for Development- An Analysis of Investment choices, World Bank Publisher, London,
16. Schultz, T. W (1963) The Economic Value of Education, Columbia University Press, Columbia
17. Sethi, Vinita (1977) Educational Development and Resource Mobilization, Kanishka Publication New Delhi
18. Sodhi, T. S (1978) Education and Economics Development, Mukand Publications, Ludhiana,
19. Tilak, J.B.G. (1987) Economics of Inequality in Education, Sage Publications, 1987. New Delhi, .
20. Vaizey John (1962) Economics of Education, London, Faber & Faber

**SEMESTER I**  
**EC- 01 ECONOMETRICS – I**  
(Statistics for Economics)

**Unit 1: Theory of Probability - I** [25%]

Definition – Methods – Finite and Infinite Set – Equality of Sets – Null Sets – Subset – Universal Set – Complement of a set – Venn diagram – Set operations – Union of two sets – Intersection of Sets – Difference Sets – Examples

**Unit 2: Theory of Probability - II** [25%]

A priori definition – Theorem on total probability – Addition and Multiplication Theorems – Conditional Probability – Random variable – Mathematical Expectation – Applications

**Unit 3: Hypotheses** [25%]

Meaning – Types of hypotheses – Critical region – Two types of error – Level of significance – Test of significance – Parametric test and Non parametric tests (theory) – Students t-test (examples)

**Unit :4 Chi-square test** [25%]

Chi-square distribution – Features of Chi-square distribution – Chi-square test for 2\*2 table – Chi-square test for 2\*K or K\*2 table – Examples

**References:**

1. A L Nagar And R K Das (1983): Basic Statistics, Oxford University Press, New Delhi, 2<sup>nd</sup> Ed.
2. Chandan J (1998): Statistics for Business and Economics, Vikas Publishing House, New Delhi
3. Dave M.B , Pandya K, Gaurang Rami and Dilip Varsani ( 2014-15) *Quantitative Methods of Economics*, Popular, Surat (Gujarati)
4. G S Monga (2000): Mathematics And Statistics For Economics, Vikas Publishing House, New Delhi, 2<sup>nd</sup> Ed.
5. G V Shenoy & Late.Madan Pant (1994) Statistical Methods In Business And Social Sciences, Macmillan India Pvt. Ltd,New Delhi
6. Jaiswal M.C.; (1974) *Arthvishayak Ankadashastra, Uni. Granthnirman Board*, Ahmedabad (Gujarati)
7. K K Sharma & Sukhpal Singh (2000): Introductory Economic Theory And Elementary Statistics, Abhishek Publications, Chandigarh
8. Michael C Fleming & Joseph G Nellis(1997) : The Essence Of Statistics For Business, Prentice Hall of India Pvt. Ltd.,New Delhi,2<sup>nd</sup> Ed.
9. Nagar A L (1997): Basic Statistics, Oxford University Press, New Delhi,15<sup>th</sup> Ed.

10. Patel Balubhai; Dhandhakiya Ankadashastra, Uni. Granthnirman Board, Ahmedabad. (Gujarati)
11. Patel D G, Padnya Kiran, Rami Gaurang and Varsani Dilip (2011), *Ankadashastra* (Statistics for Economics), Popular Prakashan, Surat
12. Patel R.K. & Patel L.B.; Business Statistic, C. Jamanadas Co. Ahmedabad. (Gujarati)
13. R H Hooda (2000): *Statistics For Business and Economics*, Macmillan India Pvt.Ltd., New Delhi
14. Richard I Levin & David S Rubin (2000) *Statistics For Management*, Prentice Hall of India Ltd, 7<sup>th</sup> Ed.
15. Richard J. Larsen and Morris L. Marx, *An Introduction to Mathematical Statistics and its Applications*, Prentice Hall, 2011.
16. Zala M.L.; (1996) *Arthshastrama Ganitshastra*, Purbiti Prakashan, Vallabh Vidyanagar. (Gujarati)

## SEMESTER – I

### ID: 01 RESEARCH METHODOLOGY

#### UNIT 1: NATURE AND SCOPE OF SOCIAL SCIENCE RESEARCH [25%]

Nature and scope of Social Science research, Types of research, Steps of research process, Criteria in Social Research, Research Design, Review of Literature

#### UNIT 2: TYPE OF DATA AND SCALE OF MEASUREMENTS [25%]

Types of Data: Primary and Secondary Data, Source of Secondary data in India, Cross sectional data, Time series data, Panel data, Quantitative data and Qualitative data, Scale of Measurement: Ratio scale, Interval scale, Nominal scale, Ordinal scale (Likert scale)

#### UNIT 3: QUALITATIVE & QUANTITATIVE DATA COLLECTION [25%]

Methods for primary data collection: Interview methods (personal interview, long interview, in-depth interview), Observation method (Direct observation, Indirect observation), Group discussion (focus group, peer group) method, Questionnaire method (Steps for preparing questionnaire)

#### UNIT 4: SAMPLING TECHNIQUES & WRITING A RESEARCH REPORT [25%]

Population and sample, Probabilistic sample: (a) Simple random sample (b) Systematic random sample (c) Stratified sample (d) Cluster sample (e) Multistage cluster, Non-probabilistic sample: (a) Quota sample (b) Convenience sample (c) Judgmental sample (d) Snow-ball sample, Steps of writing a good research report, Writing a research proposal, Preparing a bibliography (APA style and MLA style): Citation, foot-note, end-note

#### References:

- 1) Ahuja Ram (2001), Research Methods; Rawat Publications, Jaipur.
- 2) Beri G.C. (2004), Marketing Research (3<sup>rd</sup> Ed.); Tata McGraw-Hill Publishing Company Ltd, New Delhi.
- 3) Bryman Alan (2012), Social Research Methods (4th Ed), Oxford University, Press, New York
- 4) Bryman Alan; Bell Emma (2007), Business Research Methods (2<sup>nd</sup> Ed.); Oxford University Press, New York.
- 5) Cauvery R & Sudha Nayak U.K. (2005), Research Methodology; S.Chand & Company Ltd., New Delhi.

- 6) Cooper Donald R; Schindler Pamela S.(2003), Business Research Methods (8<sup>th</sup> Ed.); Tata McGraw-Hill Publication, New Delhi.
- 7) Desai Haribhai G and Desai Krushnkant G (2013) *Sansodhan Paddhatio ane Pravidhio*, University Granth Nirman Board, Ahmedabad
- 8) Kothari C.R. (2004), Research Methodology: Methods & Techniques (2<sup>nd</sup> Ed.); New Age International Pvt. Ltd, New Delhi.
- 9) Kumar Ranjit (2008), Research Methodology- A Step by Step Guide for Beginners, Pearson Education, New Delhi
- 10) Nargundkar Rajendra (2010), Marketing Research (3<sup>rd</sup> Ed.); Tata McGraw Hill Education Pvt. Ltd, New Delhi.
- 11) Panneerselvam R. (2010), Research Methodology (8<sup>th</sup> Ed.); Prentice-Hall of India Pvt. Ltd, New Delhi.
- 12) Popper, K.R. (1959), The Logic of Scientific Discovery, New York, NY: Basic Books.
- 13) Popper, K.R. (1972) Objective Knowledge, Oxford, U.K.: Clarendon.
- 14) Sekaran Uma (2006), Research Methods for Business; Wiley India Pvt. Ltd, New Delhi.
- 15) Shah A G and Dave J K (2007), *Samajik Sansodhan Padhhatio* (Social Research Methods), Anada Prakashan, Ahmedabad
- 16) Shajahan.S. (2006), Research Methods for Management, 3rd Ed.: Jaico Publishing House, Mumbai.
- 17) Sharma K.R (2002), Research Methodology; National Publishing House, Jaipur.
- 18) Shukla Gajendra B and Naik R K (2013), *Sansodhan Paddhatio* (Research Methodology), Popular Prakashan Surat
- 19) Tripathi P.C.(2003), A Textbook of Research Methodology in social sciences (4<sup>th</sup> Ed.); Sultan Chand & Sons, New Delhi.
- 20) Uchat D A (2012), *Shikshan ane Samajik Vigyanoma Sansodhamni Paddhatishastra* (Research Methodology in Education and Social Sciences), Paras Prakashan, Rajkot
- 21) William M.K. (2003), Research Methodology (2nd Ed.); Biztantra, New Delhi.
- 22) Zikmund William G. (2004), Business Research Methods (7<sup>th</sup> Ed.); Thomson Asia Pvt. Ltd, Singapore.

## SEMESTER – II

### AGRIBUSINESS

#### UNIT 1: Rural Marketing

[25%]

Features, Significance, Scope and Limitations Segmentation in rural marketing – Classification of products and services in Rural marketing –Marketing Mix for rural products. Innovative Distribution Channels like ITC E-choupal, Godrej Adhar, HUL Shakti - **Agriculture Marketing** : Definition, Scope, Concept and Objectives, Differences in Agricultural and Consumer Marketing, Constraints in Agricultural marketing. Role of Agriculture in Economics Development: APMCS: Agricultural Marketing in India.

#### UNIT 2: Agribusiness

[25%]

Need for Agribusiness Mode - Size of Indian Agribusiness - Emerging Areas of Agribusiness - Agribusiness Opportunities - Important Features of Agribusiness - Export potential for farm products- Supporting Services. Cooperative Marketing- Concept, History, Functions- Reasons for slow progress of Cooperative Sector - Advantages & Limitations of Organized retailing in Agri Inputs and Outputs- Agribusiness center; National Horticultural Mission.

#### UNIT 3: Scope for Agribusiness in India

[25%]

India is Endowed with varied ago-climate – Growing demand for Agricultural Inputs – Biotechnology Applications –Scope for Secondary and Tertiary Processing of Agricultural Commodities – Scope for Production of Marine and Inland Fish and ornamental Fish Culture – Scope for Production of Meat, Milk and milk Products, Poultry Products etc. – World Trade – Entry of Global Agribusiness Firms

#### UNIT 4: Agribusiness in India

Major areas of Agribusiness (Farm Supplies – Production – Processing – Marketing – Research & Extension – Govt. Policies & Programmes) - Agriculture in India – Indian Agriculture Strength – Inefficiencies of Indian Agriculture – Food Processing Industry in India –Major Challenges – Shortcomings – Food Industry Division – Shifting Consumer Preferences – Opportunity for India – Required Interventions - Organic Farming in India

## References:

- 1) Ahuja Ram (2001), Research Methods; Rawat Publications, Jaipur.
- 2) Beri G.C. (2004), Marketing Research (3<sup>rd</sup> Ed.); Tata McGraw-Hill Publishing Company Ltd, New Delhi.
- 3) Bryman Alan (2012), Social Research Methods (4th Ed), Oxford University, Press, New York
- 4) Bryman Alan; Bell Emma (2007), Business Research Methods (2<sup>nd</sup> Ed.); Oxford University Press, New York.
- 5) Cauvery R & Sudha Nayak U.K. (2005), Research Methodology; S.Chand & Company Ltd., New Delhi.
- 6) Cooper Donald R; Schindler Pamela S.(2003), Business Research Methods (8<sup>th</sup> Ed.); Tata McGraw-Hill Publication, New Delhi.
- 7) Desai Haribhai G and Desai Krushnkant G (2013) *Sansodhan Paddhatio ane Pravidhhio*, University Granth Nirman Board, Ahmedabad
- 8) <http://gimt.edu.in>
- 9) <http://papers.ssrn.com>
- 10) <http://www.zenithresearch.org.in>
- 11) <https://www.ifama.org>
- 12) <https://www.researchgate.net>
- 13) Kothari C.R. (2004), Research Methodology: Methods & Techniques (2<sup>nd</sup> Ed.); New Age International Pvt. Ltd, New Delhi.
- 14) Kumar Ranjit (2008), Research Methodology- A Step by Step Guide for Beginners, Pearson Education, New Delhi
- 15) Nargundkar Rajendra (2010), Marketing Research (3<sup>rd</sup> Ed.); Tata McGraw Hill Education Pvt. Ltd, New Delhi.
- 16) Panneerselvam R. (2010), Research Methodology (8<sup>th</sup> Ed.); Prentice-Hall of India Pvt. Ltd, New Delhi.
- 17) Popper, K.R. (1959), The Logic of Scientific Discovery, New York, NY: Basic Books.
- 18) Popper, K.R. (1972) Objective Knowledge, Oxford, U.K.: Clarendon.
- 19) S.S.Acharya (2007), "Agribusiness in India: Some Facts and Emerging Issues", Agricultural Economics Research Review Vol. 20 (Conference Issue) pp 409-424
- 20) Sekaran Uma (2006), Research Methods for Business; Wiley India Pvt. Ltd, New Delhi.
- 21) Shah A G and Dave J K (2007), *Samajik Sansodhan Padhhatio* (Social Research Methods), Anada Prakashan, Ahmedabad
- 22) Shajahan.S. (2006), Research Methods for Management, 3rd Ed.; Jaico Publishing House, Mumbai.
- 23) Sharma K.R (2002), Research Methodology; National Publishing House, Jaipur.
- 24) Shukla Gajendra B and Naik R K (2013), *Sansodhan Paddhatio* (Research Methodology), Popular Prakashan Surat
- 25) Tripathi P.C.(2003), A Textbook of Research Methodology in social sciences (4<sup>th</sup> Ed.); Sultan Chand & Sons, New Delhi.
- 26) Uchat D A (2012), *Shikshan ane Samajik Vigyanoma Sansodhannu Paddhatishastra* (Research Methodology in Education and Social Sciences), Paras Prakashan, Rajkot
- 27) William M.K. (2003), Research Methodology (2nd Ed.); Biztantra, New Delhi.
- 28) Zikmund William G. (2004), Business Research Methods (7<sup>th</sup> Ed.); Thomson Asia Pvt. Ltd, Singapore.