SAURASHTRA UNIVERSITY RAJKOT



FACULTY OF RURAL STUDIES

(CBCS)

SYLLABUS FOR SEMESTER IV

FOR

MASTER OF RURAL STUDIES

(Amended rules as on June-2019)

Saurashtra University

University Road, Rajkot - 360005

MASTER OF RURAL STUDIES

THE FOLLOWING ARE THE SUBJECTS PRESCRIBED FOR

SEMESTER IV

Sr.	Course Code	Course	С	IM	EM	TM	Title of the Subject
No		Category					
	100=0100010100	101		20		100	
1	19070102040100	M.FND-404	2	30	70	100	Rural Industrialization
2	19070202040200	M. Core-404	2	30	70	100	1. Agronomy-4
	19070202040300		2	30	70	100	2. Horticulture & Forestry -4
	19070202040400		2	30	70	100	3. Animal Husbandry-4
	19070202040500		2	30	70	100	4. Rural Extension-4
	19070202040600		2	30	70	100	5. Rural Economics-4
3	19070302040700	M-M.D.C	2	30	70	100	1. Value Addition in
		410					Agriculture produce
	19070302040800		2	30	70	100	2. Theories of Economic
							Development
	19070302040900		2	30	70	100	3. Animal Care and Handling
4	19070402041000	M-M.D.C	2	30	70	100	1. Gandhian approach to rural
		411					development
	19070402041100		2	30	70	100	2. Agri. Business
							Management
	19070402041200		2	30	70	100	3. Managerial Economics
5	19070502041300	M-M.D.C	2	30	70	100	1. Biotechnology in Plants
		412					and Animals
	19070502041400		2	30	70	100	2. Integrated Insect
							Management
	19070502041500		2	30	70	100	3. Agriculture Processing And
							Marketing

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark s	External exam time duration
M.R.S.	IV	M . FND - 404	19070102040100	Rural Industrializati on	2	30	70		2.5 Hrs

Title: - Rural Industrialization

Objectives:-

- 1. To understand about importance of Rural Industrialization.
- 2. To Familiarize with government policy of rural industry.
- 3. To understand the Gandhian thought of rural Development.
- 4. To know the problems and remedial measures of rural industrialization.

Theory: 100%

- Unit: 1 Meaning, Importance and objectives of rural industrialization, importance Of Agriculture in Rural Industrialization. 20 %
- Unit: 2 Small and Rural Industries meaning, importance, Benefits, problems and Measures. 20 %
- Unit: 3 Gandhian Approach about Rural Industries and Rural Development. 20 %
- Unit: 4 Government policy about small and rural Industries, small sector industrial Policy. 20 %
- Unit: 5 Dimensions of the problems of Industrial sickness Factors responsible for Industrial sickness in small and medium enterprises. 20 %

References:-

- Ruddar Datt and K. P. M. Sundharam Indian Economics S. Chamd & Co. Ltd. Delhi.
- 2. C. M. Chaudhary Rural Economics Subline publications, Jaipur.
- 3. A. N. Agrawal, Khndan Lal Agri. Problems of India Vikas Publishing House Pvt. Ltd.

- 4. Vasant Desai Fundamentals of Rural Development.
- 5. Shree shreemannarayangi Relevance of Gandhian Economics.
- 6. Bhagwati J & P Desai India Planning for Industrialization.

7.

 $E\Phi ZT\Gamma] \therefore \ \Sigma \ni \lambda\Theta \Phi 1\Phi [+ \ \varpi \ \lambda \Theta \Sigma \Phi; \ \varsigma [\Sigma \ 50\Sigma \Phi Z\Phi [\ \varpi \ 0\Phi \ \forall \Pi \ E\Phi \Theta \Sigma Z \ H\Phi [\Theta \Phi \Lambda \ \varpi \ I] \Gamma \Lambda \Pi \ Y | \ \therefore \\ \Psi \ \Gamma \Lambda \Pi \ A\Phi [0 \forall \Pi$

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark	External exam time duration
								S	
M.R.S.	IV	M .Core-404	19070202040200	Agronomy-4	2	30	70		2.5 Hrs

Title: Project Work and Dissertation / Thesis

Objectives:

- **1.**To study the preparation of project proposal
- 2.To understand the project execution
- 3.To develop the skill about data collection from the field of study
- **4.**To study about the analysis of data
- **5.**To study the preparation of dissertation / thesis and how to draw the conclusion

Syllabus:

- 1. Institutional training (Placement) programme of 15 days is compulsory for all students during this semester and "S" grade (Satisfactory Grade) have to be earned by all students.
- 2. Selection of project, preparation of proposal and sanction of project concerning the course teacher.
- 3. Implementation of project work and data collection.
- 4. Data analysis and preparation of dissertation or thesis.
- 5. Submission of thesis / dissertation to course teacher at least 15 days before the commencement of semester end examination.
- 6. Project work and the thesis / dissertation may be prepared by an individual student or in a group of 5 students maximally.
- 7. A term paper on the topic given by the course teacher has to be prepared by all students individually.

Distribution of marks:

1. Internal Assessment:

Internal assessment shall include following three criteria to evaluate a student:

Identification and selection of a problem for project work and preparation of project proposal
 10 Marks

2. Interest in work, devotion, progressiveness, sincerity and library work

-10 Marks

3. Term paper. -10 Marks

Above all three components will be evaluated by the respective course teacher.

2. External Assessment:

The external evaluation of a student shall be made by a panel of two teachers- One will be the course teacher and second will be a subject expert from the same or other college.

PANEL	VIVA- VOICE	DISSERTATION/THISIS	TOTAL
Member-1 (Course Teacher)	20	15	35
Member-2 (Subject Expert)	20	15	35

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark	External exam time duration
								S	
M.R.S.	IV	M .Core-404	19070202040300	Horticulture	2	30	70		2.5 Hrs
				& Forestry -4					

Title: Project Work and Dissertation / Thesis

Objectives:

- 1.To study the preparation of project proposal
- 2.To understand the project execution
- 3.To develop the skill about data collection from the field of study
- **4.**To study about the analysis of data
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-10 Marks

3. Term paper.

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								S	
M.R.S.	IV	M .Core-404	19070202040400	Animal	2	30	70		2.5 Hrs
				Husbandry-4					

Title: Project Work and Dissertation / Thesis

Objectives:

- 1. To study the preparation of project proposal
- 2. To understand the project execution
- 3. To develop the skill about data collection from the field of study
- 4. To study about the analysis of data
- 5. To study the preparation of dissertation / thesis and how to draw the conclusion

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Internal assessment shall include following three criteria to evaluate a student:

 Identification and selection of a problem for project work and preparation of project proposal
 10 Marks 2. Interest in work, devotion, progressiveness, sincerity and library work

-10 Marks

3.Term paper.

-10 Marks

Above all three components will be evaluated by the respective course teacher.

2External Assessment:

The external evaluation of a student shall be made by a panel of two teachers- One will be the course teacher and second will be a subject expert from the same or other college.

PANEL	VIVA- VOICE	DISSERTATION/THISIS	TOTAL
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								S	
M.R.S.	IV	M .Core-404	19070202040500	Rural	2	30	70		2.5 Hrs
				Extension-4					

Title: Project Work and Dissertation / Thesis

Objectives:

- 1.To study the preparation of project proposal
- 2.To understand the project execution
- 3.To develop the skill about data collection from the field of study
- 4. To study about the analysis of data
- 5. To study the preparation of dissertation / thesis and how to draw the conclusion

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Distribution of marks:

1.Internal Assessment:

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1.Identification and selection of a problem for project work and preparation of

project proposal - 10 Marks

2.Interest in work, devotion, progressiveness, sincerity and library work -10 Marks

3.Term paper. -10 Marks

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								S	
M.R.S.	IV	M .Core-404	19070202040600	Rural	2	30	70		2.5 Hrs
				Economics-4					

Title: Project Work and Dissertation / Thesis

Objectives:

- 1.To study the preparation of project proposal
- 2.To understand the project execution
- 3.To develop the skill about data collection from the field of study
- 4.To study about the analysis of data
- 5. To study the preparation of dissertation / thesis and how to draw the conclusion

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Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark s	External exam time duration
M.R.S.	IV	M .M.D.C 410	19070302040700	Value Addition in Agriculture produce	2	30	70		2.5 Hrs

Title: - Value Addition in Agriculture produce

Objectives:-

- 1. To aware with importance of value importance
- 2. Student gets knowledge of different preservation techniques.
- 3. To study about export policy and quality of horticultural crops

Theory: -

Unit: 1. Value addition

20%

- 1. Importance
- 2. different method to value addition in product (a. grading, b. processing c. packing d. packing e. cold storage f. certification g. biotechnology)
- 3. Factor affecting in value addition
- a. technology b. quality c. demand and supply d. infrastructural facility e. processing unit f. market g. consumer h. government policy i. tax j.use of information technology

Unit: 2. Value addition in fruit crop

30%

- 1. Importance and different methods of fruit preservation
- 2. Value added product (a. Pickle, juice bottling, powder mango, date palm etc. b. Jam, jelly –guava, papaya apple etc. c. Wafer chiku banana etc.d. Dried fruit-grape)

Unit: 3. Value addition in vegetables

20%

- 1. Importance and different methods preservation
- 2. Value added product (pickles, souas, soup, ketchup, wafer, onion powder.) M.R.S. (RURAL FACULTY) 2019

Unit: 4. Value addition flower.

10%

- 1. importance and different method
- 2. value addition like; Cut flower, perfumes, dehydration, etc

Unit: 5. Export of horticulture crop.

20%

- 1. Importance.
- 2. Point to be note for export of fruit
- (A. Variety B. selection of garden C. Harvesting D. Transportation E. Sorting F. Grading G.Cleaning H. Treatment I. Packing J. Pre cooling K. Intermediate Storage. L. Container M. Shipping N. Process of export in some major fruit crops. (a) Chiku (b) Banana (c) mango.)

References

- (1) "Fal ane Ful" (Gujrati edition- march 2015)
 - pub.: Directore of extension education, S.S.K., J.A.U. Junagadh.
- (2) "Falpako" (Gujrati edition- march 2013)
 - pub.: Directore of extension education, A.A.U. Anand.
- (3) "Fal visheshank" (Gujrati edition)

pub.: "Krushigovidya", Anand Kendra, (G.A.U.) – Anand

- (4) "Shakbhaji pako ni kheti" (Gujrati edition- Dec. 2013)
 - pub.: Directore of extension education, S.S.K., J.A.U. Junagadh.
- (5) "Ful visheshank" (Gujrati edition –January 2004)

pub.: "Krushigovidya", Anand Kendra, (G.A.U.) – Anand

- (6) "Shakbhaji" (Gujrati edition may-2009)
 - pub.: Directore of extension education, A.A.U. Anand.

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M.R.S.	IV	M-M.D.C 410	19070302040800	Theories of Economic Development	2	30	70		2.5 Hrs

Title:- Theories of Economic Development

Objectives:-

- 1. To know the characteristics of Economic Development.
- 2. To know the various theories of Economic Development.
- 3. To know the factor effecting Economic Development.

Theory: 100%

- Unit: 1 Meaning and Definitions of Economic Growth and Development. IndicatorsOf Development factors of Economic Growth.20 %
- Unit: 2 Theories of Economic Development Adaw smith, ricardian theory,Schumpeterian theory.
- Unit: 3 Theories of Economic Development the Keynesian theory, Rostow's stages
 Of Economic Growth. 20 %
- Unit: 4 Economic Development population and institution Effect of population
 20 %

 Growth on Economic Development. The Theory of Demographic Transition.
- Unit: 5 Meaning and importance of human capital formation, problems of human capitalFormation. Criterion of investment in human capital. Entrepreneurship in

References:-

- 1. Adelman T. Theories of Economic growth and Development.
- 2. Ghatak S. Economic Development.
- 3. Myinl Economic Theory and Un Development Cowntries.
- 4. Thirwal A. P. Growth and Development.
- 5. Reo V. K. R. V. Essays in Economic Development.
- 6. Ruddar Datt, K. P. M. Sundharam Indian Economy S. Chand & Co. Ltd. Delhi.
- 7. Chatak S. An introduction to Development Economics.

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark	External exam time duration
								S	
M.R.S.	IV	M-M.D.C	19070302040900	Animal Care	2	30	70		2.5 Hrs
		410		and Handling					

Title: - Care and Handling of animals

Objectives:-

- 1. To learn how to approach an animal.
- 2. To learn about how to control an animal
- 3. To understand the importance of routine procedures on the farm.
- 4. To understand the importance of care and management of different classes of animal.

Course:- 100%

Unit:-1. Casting of animals:

20%

- 1.1 Different casting methods.
- 1.2 Purposes of casting.

Unit:-2. Animal Handling and care:

25%

- 2.1 Dairy colt rearing: Systems and essential steps.
- 2.2 Care and management of at different stage like pregnancy, Lactation and Parturition.

Unit:-3. Routine Procedures of farm

25%

- 3.1 Castration
- 3.2 Training to young bulls.
- 3.3 Application of nose-ring.
- 3.4 Dehorning.

Unit:-4 Care during transportation.

15%

- 4.1 Transportation of chicks.
- 4.2 Transportations of broilers.

Unit:-5. Bull handling:

15%

-Handling, Casting, Training. And polishing of breeding bulls

Reference:-

- 1. A text book of animal husbandry -by G.C Banerjee
- 2. A text book of animal husbandry ICAR

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark s	External exam time duration
M.R.S.	IV	M .M.D.C 411	19070402041000	Gandhian approach to rural development	2	30	70		2.5 Hrs

Title: - Gandhian Approach to Rural Development

હેતુઓઃ-

- (૧)વિદ્યાર્થીઓ ગાંધીજીના ગ્રામોધ્ધારના ખ્યાલ વિશે માહિતી મેળવે.
- (૨) વિદ્યાર્થીઓ ગાંધીજીનું અર્થદર્શન સમજે.
- (૩) વિદ્યાર્થીઓ ગાંધીજીના આદર્શો અને વિચારો વિશેની સમજ કેળવશે.
- (૪) વિદ્યાર્થીઓ ગાંધીજીના કેળવણીના વિચારોથી પરીચિત થાય.

અભ્યાસક્રમ

એકમ :- ૧ ગ્રામોધ્ધાર માટે ગાંધીજીના પ્રયાસો.

२० %

- (૧) ગ્રામ્ય જીવનનું અવલોકન.
- (૨) સ્વચ્છતાની કેળવણી.
- (૩) ગ્રામ સેવકનો ધર્મ.
- (૪) સહકારી પશુપાલન.

એકમ :- ૨ ગાંધીજીનું અર્થદર્શન.

२० %

- (૧) પુર્ણ રોજગારી
- (૨) મજુર પ્રવૃતિ.
- (૩) જાત મહેનત.

એકમ :- 3 આર્થિક સમાનતા હારા ગરીબ નિવારણ.

२० %

- (૧) વાલીપણાનો (ટ્રસ્ટીશીપનો) સિધ્ધાંત.
- (૨) યંત્રો પ્રત્યેનો અભિગમ.

(૩) સ્ત્રી ઉન્નતિ.

એકમ :- ૪ ગાંધીજીના આદર્શો અને વિચારોનું ઘડતર.

२० %

- (૧) સ્વદેશીની ભાવના.
- (૨) પરદેશી કાપડનો બહિષ્કાર.
- (૩) ખાદી માટે પ્રચાર.
- (૪) ખાદી અને ગ્રામોઘોગ.

એકમ :- ૫ ગાંધીજીના કેળવણી વિષયક વિચારો.

२० %

- (૧) કેળવણી વિષયક વિચારોનો વિકાસ.
- (૨) ૠણ અવસ્થા
- (૩) પ્રથમ અવસ્થામાં ટોલ્સટોય ફાર્મ, ઘરશાળા, ઉત્પાદકશ્રમ, બૌધ્ધિક કેળવણી, અક્ષરજ્ઞાન અને ચારિત્ર ગઠન,
- (૪) બીજી અવસ્થામા વિદ્યાપીઠ, અસહકાર અને શિક્ષણ, સા વિધ્યા વિમુકત્યે ઉદ્યોગ, સ્વાવલંબન, શિક્ષણકળા, રચનાત્મક કળાનો સમય વગેરે.
- (પ)ત્રીજી અવસ્થામા ઉદ્યોગ દ્વારા શિક્ષણ, બાળ સ્વભાવ અને કામ, મન વચન કર્મ એકતા, વ્યક્તિત્વ વિચાર કળા ઈન્દ્રીય કેળવણી, સત્યમ્ શિવમ્ સંદરમ્ વગેરે

સદર્ભ ગ્રંથોઃ-

- ૧. ગાંધીજીનું અર્થદર્શન વિકલદાસ મગનલાલ કોઠારી
- ૨. ગાંધીવાદી જીવનદર્શન અને અર્થ વ્યવસ્થા રમેશભાઈ બી. શાહ
- ૩. ગાંધીજીનું ધર્મદર્શન મગનભાઈ જો. પટેલ
- ૪. સમાજ સુધારણામાં ગાંધીજીનું પ્રદાન અંજના બી.શાહ
- ૫. ક્રાંતિકારી ગાંધી રામનારાયણ નાગરદાસ પાઠક

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark s	External exam time duration
M.R.S.	IV	M .M.D.C 411	19070402041100	Agri. Business Management	2	30	70		2.5 Hrs

Title: - AGRI BUSINESS MANAGEMENT

Objectives

- 1. To develop an understanding of the underlying concept
- 2. To develop an understanding of the strategies and the issues involved in the exchange of products and services between the companies and rural markets
- 3. To develop an understanding of the strategies and the issues involved rural products to consumers.

Course: 100%

UNIT-1 Soils and Crop Management:

30%

- -Soil Testing and Fertilizer use
- -Integrated Plant Nutrition Management (IPNM)
- -Integrated Pest Management (I.P.M.),
- -Seed Production and Seed Technology
- -Bio Composting: Nadep, C.P.P. Vermi-Compost, C.H.M. Heap Compost, P.S.B.Culture, Rhizobium Culture, B.G.A., Azotobuctor,
- -Bio Agents, Trico derma, Viveria Vasiana, Trico cards, Neem cake, Pheromantrape,

Horticultural Crop Management: Advance Farming Systems:

Nursery Management, Machan Farming, Staking, Mushroom Cultivation, Post Harvest, Zero Energy Cool Chamber, Onion Storage, IPM & IPNM in major fruit and vegetable crops. Animal Husbandry and Dairy Management:

Green Fodder, Urea Treatment of Straw, Beekeeping, Goatory UNIT, Milk Group, Hygienic Milk Production, Milk Cooperative.

UNIT -2 Agricultural Marketing:

20%

-Agro Marketing: Definition and Meaning, Marketing System, Importance of Agricultural Marketing, Advantages of Agri Marketing, Marketing Functions and Channels.

- Classification of Marketing:
 - i. Regulated Markets,
 - ii. Cooperative Markets.

UNIT- 3 Agri. Cooperatives

20%

Cooperation: Introduction, Meaning, Definition, Need and Importance, Principles, Development of Agricultural Co-operation and its Role and Importance and functions. Structure of Cooperation in India: Kinds of cooperative societies and Self Help Groups, Farmers' Interest Group

Critical Analysis of Indian Cooperative Movement; Advantages of cooperative Movement, Weakness of Cooperative Movement, State Aid Control and Cooperative Movement, Efforts of Central Government for the Improvement of co-operative Sector

UNIT-4 Agro Export

20%

- Concept of Export as Agro Business.
- Agri Export Policies
- Versus Export Value of cereals and other Agricultural Commodities

UNIT –5 Agro Business Management Case Studies

10%

Books:

1. Rural Marketing Mgt.: Raja Gopal (Discovery Publications)

2.Marketing Mgt: Philip Kilter
3.Marketing Mgt: T.N.Chhabra
4.Principles of Marketing: Armstrong & Kotler

Name	Seme	Core/	Course Code	Course Title	Cre	Inte	Exte	Pract	External
of	ster	Elective/			dits	rnal	rnal	ical/	exam
Course		Foundation				mar	mar	viva	time
						ks	ks	mark	duration
								s	
M.R.S.	IV	M .M.D.C	19070402041200	Managerial	2	30	70		2.5 Hrs
		411		Economics					

Title: - Managerial Economics

OBJECTIVE:

- 1. To provide the students an appreciation of the use of the concepts and tools of economic analysis in relation to managerial decision-making.
- 2. To enable them to understand the economic forces governing industry and business.
- 3. To develop managerial decision-making power.

Course: 100%

UNIT-1 INTRODUCTORY:

20%

Scope and Method of Managerial Economics, Five Fundamental concepts, The Incremental concept, Time perspective, and Discounting Principle, Role and responsibilities of Managerial Economist

UNIT-2 DEMAND ANALLYSIS:

20%

Basic concepts of Demand Utility Analysis, Budget Line, Price, Income and substitution effects, Law of Demand, Demand Function, Elasticity of Demand, Demand Forecasting

UNIT-3 PRODUCTION AND COST ANALYSIS

20%

Production Function, Laws of Variable Proportions, Returns to Scale, Iso-product curves, Classification of costs.

UNIT-4 MARKET STRUCTURE AND PRICING

20%

Perfect competition, Monopoly, imperfect Competition, Pricing under different Market structure Price discrimination

UNIT-5 PROFIT MANAGEMENT:

20%

Nature and concept of Profit, Measurements of Profit, Concept of Risk and uncertainty Theories of Profit Planning and Forecasting Profit Policies.

Suggested Reading:

1. G.S.Gupta. Managerial Economics

M.R.S. (RURAL FACULTY) 2019

2. D.N.Dwivedi Managerial Economics

3. Salvatore Dominick Managerial Economics in global Economy

Adhikari Managerial Economics
 Peterson and Levis Managerial Economics

Faculty of Rural Studies

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark s	External exam time duration
M.R.S.	IV	M .M.D.C 412	19070502041300	Biotechnolog y in Plants and Animals	2	30	70		2.5 Hrs

Title: - Biotechnology in Plants and Animals

Objectives:

- 1. the student make familiar to tissue culture technique and its use in agriculture
- 2. students should know about biotechnology and also about B.T. cotton
- 3. students should aware about cloning technique and also about multiple ovulation and E.T.

Unit:-1 Tissue culture

20%

What is tissue culture?
Methods of tissue culture
General procedure to raise a plant by cell culture
Use of tissue culture in agriculture

Unit:-2 B.T. Seeds

30%

What is B.T Seeds?

Use of B.T Seeds in Crop Production

Merits and demerits of B.T Seeds

Use of Bio – technology in crop Production

Unit:-3 Bio – technology in Animal Husbandry

10%

Introduction and definition and its uses in Animal Husbandry.

Unit: - 4 Cloning:

15%

Methods of Clonning,

Uses of Clonning methods in animal reproduction

Clonning method of "Dolly" sheep production

Unit:-5 Multiple ovulation and embryo transfer (MOET)

25%

Detailed methodology of Multiple ovulation, embryo collection, evaluation, and transfer of embryos.

Advantage and disadvantages of M.O.E.T

Transgenic animas, methods and uses of transgenic animals

Introduction of genetic engineering

References:-

- 1. Jamin Vigyan and Vyavastha (guj. Ed.)
 - Babubhai Avarani.
- 2. Pragatishil kheti (guj. Ed.)
 - Pub. By Sardar Smruti Kendra,
 - Junaghdh Agri. Uni . Junaghdh
- 3. Veterinary Obstetrics and Gynecology.
 - Kodagali and Bhuj.
- 4. Bio technology vishheshnk (Godarshan)
 - Guj .Ed.

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark s	External exam time duration
M.R.S.	IV	M .M.D.C 412	19070502041400	Integrated Insect Management	2	30	70		2.5 Hrs

Title:- Integrated Insect Management

Objectives:-

- 1. Students should be aware about insects, its structure, lifecycle and control measure
- 2. Introduction to plant diseases, its causes, symptoms in plants and principles of disease control to the students
- 3. The student should know about weed, its disadvantages, dispersal, classification and control measures.

Courses:- 100%

Unit-1 Structure of insect, lifecycle of insect, classification and its feeding habit. 10%

Unit-2 Characteristics for survival of insects on the earth.

Unit-3 Methods of insect control:

40%

- 3.1 Natural methods of insect control
- 3.2 Artificial methods of insect control
 - 3.2.1 Physical and mechanical methods of insect control
 - 3.2.2 Cultural methods of insect control
 - 3.2.3 Legal methods of insect control
 - 3.2.4 Biological methods of insect control
 - 3.2.5 Chemical methods of insect control
 - 3.2.6 Integrated insect management
- Unit-4 Classification, characteristics, formulations trade names of Insecticides. 20%
- Unit-5 Marks of identification, nature of damage, host range, metamorphosis, life cycle and integrated insect control of insects like; Heliothis, Prodenia, Pink ball worm, Aphids, jassids, Thrips, Surface grass-hopper, Whitegrub, Termites, whitefly and Fruitfly.

20%

References:-

- 1. Principles and procedures of plant protection
 - -S.B. Chattopadhyay
- 2. Insect-pest of crop
 - -S.Pradhan
- 3. Biology of insect
 - -S.C. Saxena
- 4. General Entomology
 - M.S. Mani

Name of Course	Seme ster	Core/ Elective/ Foundation	Course Code	Course Title	Cre dits	Inte rnal mar ks	Exte rnal mar ks	Pract ical/ viva mark s	External exam time duration
M.R.S.	IV	M .M.D.C 412	19070502041500	Agriculture Processing And Marketing	2	30	70		2.5 Hrs

Title:- Agri. Processing & Marketing

Objectives:-

- 1. To know the relationship between the Agri. Products and price.
- 2. To Acquire knowledge about the Agri. Marketing mechanism.
- 3. To understand the importance of Agri. Products processing.
- 4. To identify the limitations of Agri. Marketing & Processing and to think About the remedial measures.

Theory: 100%

Unit: 1 Market – meaning and types, contribution Agri. Marketing in
 Agri. Development.

Unit: 2 Present state of Agricultural Marketing in India, Different between
 Agri. Product and Industrial product market, limitation of Agriculture marketing in India.

Unit: 3 Step taken to improve Agri. Marketing, Regulated Market, Co. Operative

Marketing. 20 %

Unit: 4 Determination of Price of Agri. Product, Market Mechanism, cobweb theorem,

Unit: 5 Contribution of Agri. Prosessing in Agri. Development, scope and problems of
 Agro – industry, remedial measured.

References:-

- Ruddar Datt, K. P. M. Sundharam, Indian Economics S. Chamd & Co.
 Ltd. Delhi.
- 2. Sundhram I. S. Rural Development.
- P. C. Bansal Economic problems of Indian Agri CBS public shers & Dist. Delhi.
- 4. A. N. Agarwal / Khndawal Agri. Problems of India Vikas Publishing Tiouse Pvt. Ltd.
- 5. ડી. ભાષ્કર જોષી ભારતનું કૃષિક્ષેત્ર, વિકાસ અને પડકારો યુનિ. ગ્રંથ ની. બોર્ડ.