

MASTER OF RURAL STUDIES
THE FOLLOWING ARE THE SUBJECTS PRESCRIBED FOR
SEMESTER-I

Sr No.	Course Code	Course Category	C	IM	EM	TM	Course Title
1	19070102010100	M.FND-101	2	30	70	100	Rural Technology
2	19070202010200 19070202010300 19070202010400 19070202010500 19070202010600	M.Core-101	2 2 2 2 2	30 30 30 30 30	70 70 70 70 70	100 100 100 100 100	1.Agronomy 2. Horticulture & Forestry 3.Animal Husbandry 4.Rural Extension 5. Rural Economics
3	19070302010700 19070302010800 19070302010900	M.MDC-101	2 2 2	30 30 30	70 70 70	100 100 100	1. Water Resource Management 2. Pomology 3. Philosophy and Contents of Extension
4	19070402011000 19070402011100 19070402011200	M.MDC-102	2 2 2	30 30 30	70 70 70	100 100 100	1.Concept of social reconstruction 2.Rural development in India 3.Olericulture
5	19070502011300 19070502011400 19070502011500	M.MDC-103	2 2 2	30 30 30	70 70 70	100 100 100	1. Natural Recourses and Management 2.Sociology of Tribal Society 3.Reproduction in Farm Animals

MDC means Multi disciplinary course

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.FND-101	19070102010100	Rural Technology	2	30	70	--	2.5 Hrs

Title: Rural Technology

Objectives:-

1. Student aware with knowledge of resources in rural area
2. Student aware with knowledge of farm implements, so can use in his farming practices.
3. Student aware with knowledge of green house technology, so can use in his farming practices.

Course:

100%

Unit 1

Energy resources

30%

1.1 Energy Crisis

1.2 Conventional and non-conventional sources of energy.

1.3 Non conventional: Bio-Gas energy, Solar Energy, Wind Energy, Waves and tides, their development and utilization.

1.4 Energy saving in kitchen.

Unit 2

Farm implements: importance and use (in brief)

20%

2.1. Tractor

2.2. Spray pump

2.3. Plough

2.4. Hoe & Harrow

2.5. Rotavator

Unit 3

Green House technology

15%

3.1 Importance & Scope

3.2 Principles of green house

3.3 Types of green house

Unit 4

Use of Plastic in Horticultural Crop

20%

4.1 Plastic Bag in nursery.

4.2 Mulching

4.3 Pipe Line

4.5 Drip and Sprinkle irrigation.

4.6 Packing and Storage in fruit and flower.

4.7 Plastic House / Green House.

Unit 5

Nursery in Rural Area

15%

5.1 Fruit

5.2 Flower

5.3 Forest Tree

Selection of place, land preparation, aftercare, Marketing

References

- (1) “ Fal ane Ful ” (Gujrati edition- march 2015)
pub.: Directore of extension education, 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) Non conventional Enegy (Gujarati edition)- Anil K. Popat

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.Core -101	19070202010200	Agronomy	2	30	70	--	2.5 Hrs

Title: Research Design in Agriculture

Objectives:-

1. Students should know about the selection of site for experiments and uniformity trials
2. To aware the students about principles of experimental design
3. Students should be aware about the simple design of experiments
4. Students should know the methods and preparation of questionnaire.
5. The student should aware about to collect the sample, methods of sampling from the field and its analysis.

Theory:-

Unit:-1 Questionnaire: - 15%

- 1.1 Definition and meaning of questionnaire
- 1.2 Characteristics of questionnaire
- 1.3 Merits of demerits of questionnaire
- 1.4 kinds of questionnaire

Unit:-2 Sampling and observations 15%

- 2.1 What is sampling
- 2.2 Importance of sampling
- 2.3 Methods of sampling
- 2.4 observations & its importance
- 2.5 Importance observation taken during experimentation for major field crops

Unit:-3 Some important definitions used in field experiments design, objectives and types of field experiments, uniformity trial and principles of field experiments. 20%

Unit:-4 Field experimental design: - 40%

- 4.1 Aims and classification of experimental design and uniformity trials
- 4.2 Simple designs of experiments
- 4.3 Paired design of experiment
 - 4.3.1 Completely Randomized Design
 - 4.3.2 Randomized Block Design
 - 4.3.3 Latin Square Design

Unit:-5 Care to be taken during field experiments 10%

References:-

1. “*Kshetra Prayog ni Karya Paddhati*” (Gujarati Edition)
- Dr. Ambalal Sendhabhai Patel & Shri Mahesh Ramnikbhai
Vaishnav
2. Agricultural Statistics in India
- P.C.Bansil
3. Field Experimental Deisng.
- Chandel R.S.
4. “*Samajik Sansodhan Paddhatio*” (Gujarati Edition)
- A.G. shah & J.K. Dave

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.Core -101	19070202010300	Horticulture & Forestry	2	30	70	--	2.5 Hrs

Title: Fruit production

Objectives:-

- (1) Student gets knowledge about recent production technology in fruits.
- (2) To know the principal of fruit production so useful in progressive farming.
- (3) Create self - employment source.

Theory: -

(100%)

Unit: 1 Defination, importance, scope, and problems of fruits (10 %)

Unit: 2 Planning of orchard (20 %)

- Planning of orchard, selection of plant ,
- Ideal orchard and planting method

Unit: 3 After care in fruit crops (25 %)

- Training and pruning in fruit
- Ferilizer requirement
- Weed and weed management
- Treatment of “Bahar”

Unit: 4 Irrigation methods in orchard (25%)

Unit: 5 -Varietal characteristic of fruits (20%)
- Integrated pest management in fruit crops.

References

- (1) “ Fal ane Ful ” (Gujrati edition- march 2015)
pub.: Directore of extension education, 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

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.Core -101	19070202010400	Animal Husbandry	2	30	70	--	2.5 Hrs

Title: Animal Genetics & Breeding

Objectives:

- (1) To understand the underlying truth of heritability and its application.
- (2) To know the importance of breeding for improvement of animals.
- (3) To get familiar with selection methods and to apply in practice.
- (4) To understand the importance of reproduction in profitability of animal husbandry.
- (5) To know various reproductive problem and how to overcome form them.
- (6) To know how one could help to villagers for improvement of their animals.

Unit-1: Heritability and Selection: 20%

1. Laws of Heritability: Mendel's experiment on peas and laws.
2. Selection: A tool to a breeder for improvement

Unit-2: Variations and Trait: 20%

1. Variation: Sources, effects and Implications of variation .
2. Choosing a trait for selection: affecting factors, degree of relationship

Unit-3 : Animal Selection: 20%

1. Animal Selection: Methods, Their merits and demerits
2. Selection criteria for breeding bulls at puberty and at adulthood

Unit-4 : Fertility and Breeding: 20%

1. Fertility affecting breeding efficiency and measures to promote breeding efficiency
2. Methods of Breeding and Their merits & demerits

Unit-5:Breeding and Pregnancy Diagnosis: 20%

1. Heat Detection and Breeding management for successful conception.
2. Pregnancy Diagnosis: Importance and Methods.

Reference Books:

1. Pashumadarog and Prasutivigyan Part - 1, 2, 3
- S. B. Kodagali, B. K. Bhavsar
2. Pashu Samvardhan - R. K. Shukal
3. A Text Book of Animal Husbandry - G. C. Banerjee.
4. Animal Genetics and Breeding - BAIF

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.Core -101	19070202010500	Rural Extension	2	30	70	--	2.5 Hrs

Title: ગ્રામ વિકાસનો ઈતિહાસ

Objectives:-

- (૧) વ્યક્તિ, જુથ, સમુહ ને તૈયાર કરવા.
- (૨) વિવિધ યોજનાઓથી અવગત કરવા.
- (૩) ગ્રામ વિકાસના બધાજ પરિબળોથી અવગત કરવા.
- (૪) સ્વૈચ્છીક સંસ્થાઓ થી વિદ્યાર્થીઓને જાગ્રત કરવા.

અભ્યાસક્રમ

- એકમ :- ૧** ગ્રામ વિકાસનો ખ્યાલ ગ્રામ વિકાસના કાર્યો ગ્રામ વિકાસનો ઈતિહાસ, અને ગ્રામ વિકાસના હેતુઓ. ૨૦ %
- એકમ :- ૨** ગ્રામ વિકાસની સંસ્થાઓ (એજન્સીઓ)નો ખ્યાલ, અર્થ અને મહત્વ ૨૦ %
- એકમ :- ૩** ગ્રામ વિકાસમાં NGO નો ફાળો, અર્થ, કાર્યો વિભાવના અને કાર્યક્ષેત્ર. ૨૦ %
- એકમ :- ૪** ગ્રામ વિકાસમાં સહકારીક્ષેત્રે યુવાનો, ખેડૂતો અને મહિલાઓ અને સરકારી બેંકોનું મહત્વ, રોલ અને કામગીરી. ૨૦ %
- એકમ :- ૫** ગ્રામ વિકાસ માટેની વિવિધ યોજનાઓ. ૨૦ %
- ૧ સહકારી સંસ્થાઓ.
૨ ટ્રાયસેમ યોજના
૩ SGSY યોજના
૪ નારેગા યોજના
૫ આદિવાસી વિકાસ યોજના
૬ વોટરશેડ યોજના

સદર્ભ ગ્રંથો:-

૧. ભારતની સામાજિક સંસ્થાઓ - પ્રો શાહ / જોષી
૨. ગ્રામ વિકાસ - લે. બાબુભાઈ અવરાણી.
૩. ભારત ગરીબી - લે. રોહિત શુક્લા.
૪. કૃષિ અર્થશાસ્ત્ર - સીદત / વ્યવહાર.

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.Core -101	19070202010600	Rural Economics	2	30	70	--	2.5 Hrs

Title: Agriculture Economics.

Objectives:

1. To know Basic Issue Of Agriculture Economics.
2. To Know About Cropping pattern.
3. To Know About Agri. Credit Structure
4. To Familiarise Student With Policy issue That are relevant to Indian agri. Ecomics & enable then to analyze the issue.

UNIT-1 Meaning and characteristics of agriculture economics The place of agriculture in the national economy 20%
trends of Agriculture production and productivity after independence
agri. productivity, causes of low Productivity, measures.

UNIT-2. Land use and cropping pattern in India since.1951 factors affecting cropping pattern. 20%

UNIT-3 Agriculture inputs, importance, progress & limitations - irrigation, fertilizers and manures, seeds, soil conservation and reclamation. animal husbandry and dairy development. 20%

UNIT-4. size of farms and productive efficiency - the meaning of Economic holding, size pattern of operational holding, farm size, productivity/profitability & farm efficiency. The problem of sub division and fragmentation of holding - causes and remedies 20%

UNIT-5.sources of credit for Indian farmers – institutional and non-institutional credit,limitations of non-institutional credit, importance of institutional credit, co-operative finance- structure, achievement and limitations. 20%

References:

1. A.N.Agrawal/ Kundanlal-Agricultural problems in India,-Vikash Pub. House
2. Ruddar Datt & KPM Sundharam-Indian Economy,- S.Chand & Co. Ltd. N. Delhi
3. Sadhu & Singh- Agriculture Problems in India,- Himalaya Pub. House, Mumbai
4. L. K. Wader & C. Murphy- Agri. Marketing And Co-operation, Indian Council of Agri. Res.
5. Bilgrami SAR – An Introduction To Agri. Economics, Himalaya Pub. House, Mumbai

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -101	19070302010700	Water resource management	2	30	70	--	2.5 Hrs

Title :- Water Resource Management

Objectives :-

1. Student should know theoretically as well as practically about water conservation.
2. Student should be aware about works done in Water Resource Management.
3. To know about the Water saving irrigation method.

Theory : **100%**

Unit : 1 **Introduction to water Resource Management.** 25 %

- 1.1 Best development of Resource Management proper use and management of water Resource.
- 1.2 Aspect of Water Resource Management.
- 1.3 Role of various agencies in water resource management.

Unit : 2 **Ground Water** 25 %

- 2.1 Introduction.
- 2.2 Ground water importance and Present situation.
- 2.3 Use of Ground Water.
- 2.4 Limitation of usages of Ground Water.
- 2.5 Steps to Increase Ground Water.

Unit : 3 **Watershed Management** 15 %

- 3.1 Introduction.
- 3.2 Points kept in mind while selecting watershed site.
- 3.3 Type of development works under water shade treatment.
- 3.4 Terms related with watershed.
 - Self held group.
 - Use group.
 - Homogeneous group.
 - Watershed.
- 3.5 Characteristics of watershed.

Unit : 4	Water harvesting.	15 %
4.1	People's participation in watershed management.	
4.2	Necessity of rain water harvesting.	
4.3	Methods of rain water harvesting.	
	1. Check dam.	
	2. Percolation Tank.	
	3. Khet Talavadi.	
	4. Underground water storage.	
	5. Plantation tree.	
	6. Well recharge.	
	7. Bore recharge.	

Unit : 5	Advance Water Application Method	20 %
5.1	Function of irrigation water.	
5.2	Sprinkler irrigation system Classification of irrigation system Advantages of irrigation system Disadvantages of irrigation system	
5.3	Drip irrigation system. Part of Drip irrigation system. Advantages of drip irrigation system. Disadvantages of drip irrigation system.	
5.4	Visit to a farm and practical. Study of drip irrigation.	
5.5	Collect the information related to motivation of drip irrigation system about Government policy.	

References :-

1. Water resources management (Gujarati Edition) – Anil K. Papat
2. Manuals on Irrigation Agronomy – R. D. Misra and M. Ahmed
3. કુદરતી સંપત્તિ - વિકાસ અને વ્યવસ્થાપન - બાબુભાઈ અવરાણી
4. Rain water Harvesting – Arnold Racey.

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -101	19070302010800	Pomology	2	30	70	--	2.5 Hrs

Title: Pomology

Objectives:-

- (1) Student gets knowledge about recent production technology in fruits.
- (2) To know the principal of fruit production so useful in progressive farming.
- (3) Create self - employment source.

Theory: -

(100%)

Unit: 1 Defination, importance, scope, and problems of fruits (10 %)

Unit: 2 Planning of orchard (20 %)
-Planning of orchard, selection of plant ,
- Ideal orchard and planting method

Unit: 3 After care in fruit crops (25 %)
- Training and pruning in fruit
- Fertilizer requirement
- Weed and weed management
- Treatment of “Bahar”

Unit: 4 importance of watering in fruit crops & Irrigation methods in orchard (25%)

Unit: 5 Varietal characteristic of fruits & Integrated pest management in fruit crops. (20%)

References

- (1) “ Fal ane Ful ” (Gujrati edition- march 2015)
pub.: Directore of extension education, 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

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -101	19070302010900	Philosophy & contents of extension	2	30	70	--	2.5 Hrs

Title: Philosophy and Contents of Extension

Objectives:-

- (૧) વિદ્યાર્થીઓ વિસ્તરણ શિક્ષણની મહત્વની બાબતો વિશે જાણે.
- (૨) વિદ્યાર્થીઓ વિસ્તરણ શિક્ષણનો ઈતિહાસ અને સિધ્ધાંતોથી પરિચિત બને.
- (૩) પરદેશની વિસ્તરણ સેવાઓથી માહિતગાર બને.
- (૪) ભારતીય ગ્રામીણ સમાજને સમજે.
- (૫) સામુદાયિક વિકાસ કાર્યકરનું કર્તવ્ય જાણે.

અભ્યાસક્રમ

એકમ :- ૧	વિસ્તરણ શિક્ષણ: ૧. વિસ્તરણ શિક્ષણના તત્વો. ૨. વિસ્તરણ શિક્ષણનું મહત્વ. ૩. વિસ્તરણ શિક્ષણનું કાર્યક્ષેત્ર.	૨૦ %
એકમ :- ૨	વિસ્તરણ શિક્ષણના સિધ્ધાંતો: ૧. વિસ્તરણ શિક્ષણનો ઈતિહાસ. ૨. વિસ્તરણ શિક્ષણ પ્રક્રિયાના સોપાન. ૩. વિસ્તરણ શિક્ષણનું તત્વજ્ઞાન.	૨૦ %
એકમ :- ૩	પરદેશમાં વિસ્તરણ શિક્ષણ સેવાઓ : ૧. અમેરીકા ૨. ફિલીપાઈન્સ. ૩. જાપાન ૪. બર્મા	૨૦ %
એકમ :- ૪	ભારતીય ગ્રામીણ સમાજ ૧. ભારતય ગ્રામરચના. ૨. ગ્રામ વ્યવસ્થાના પ્રકાર. ૩. જ્ઞાતિપ્રથા. ૪. ગ્રામ સમાજના લક્ષણો.	૨૦ %
એકમ :- ૫	સામુદાયિક વિકાસ કાર્યકરનું કર્તવ્ય : ૧. ભોમિયા તરીકે ૨. કાર્યસહાયક તરીકે ૩. નિષ્ણાંત તરીકે ૪. ચિકિત્સક તરીકે.	૨૦ %

સદર્ભ ગ્રંથો:-

૧. કૃષિ વિસ્તરણ શિક્ષણ - ઈશ્વરભાઈ પટેલ
૨. સામુદાયિક વિકાસ અને કૃષિ વિસ્તરણ - બાબુભાઈ અવરાણી
૩. વિસ્તરણ શિક્ષણના મુળતત્વો - પ્રો. ધીરજ ધકાન

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -102	19070402011000	Concept of social reconstruction	2	30	70	--	2.5 Hrs

Title: Concept of Social Reconstruction

Objectives:-

- (૧) વિદ્યાર્થીઓ સમાજનવનિર્માણ વિશેનું જ્ઞાન પ્રાપ્ત કરે.
- (૨) વિદ્યાર્થીઓ ધર્મ, તત્વજ્ઞાન અને વિજ્ઞાનની સમજ કેળવે.
- (૩) વિદ્યાર્થીઓ ફ્રેચ અને અમેરીકન ક્રાંતિથી પરિચિત થાય.
- (૪) વિદ્યાર્થીઓ કાલમાર્ક્સ, અબ્રાહમ લીકન અને માર્ટીન લ્યુથરકિંગ વિશેનું જ્ઞાન પ્રાપ્ત કરે.

અભ્યાસક્રમ

- એકમ :- ૧ સમાજનવનિર્માણ એટલે શું? તે શા માટે જરૂરી છે ? સમાજનવનિર્માણનું સ્વરૂપ અને ક્ષેત્ર ૧૦%
- એકમ :- ૨ સમાજનવનિર્માણના સહાયક પરિબલોમાં ૨૫%
૧. ધર્મ - ધર્મ એટલે શું તેના ઉદભવના કારણો.
માનવ જીવનમાં ધર્મનું મહત્વ
૨. તત્વજ્ઞાન - તત્વજ્ઞાનની વ્યાખ્યા અને લક્ષણો.
તત્વજ્ઞાનની જુદી - જુદી શાખાઓ.
૩. વિજ્ઞાન - વિજ્ઞાનની વ્યાખ્યા અને લક્ષણો.
- એકમ :- ૩ ફ્રેચ અને અમેરિકન ક્રાંતિ તેના કારણો અને તેની અસરો સમાજ પૂન: નિર્માણની એક પ્રક્રિયાના ભાગરૂપે ક્રાંતિ ૨૦%
- એકમ :- ૪ સત્તા દ્વારા સામાજિક ક્રાંતિ માર્ટીન લ્યુથરકિંગ જુનિયર, જહોન કેલ્વીન. ૨૫%
- સોક્રેટીસનું જીવન અને તેનું ચિંતન
- એકમ :- ૫ અબ્રાહમ લીકન અને કાલમાર્ક્સની ઉપયુક્તતા અને મૂલ્યાંકન. ૨૦%
- પ્લેટોનું જીવન અને તેનું આદર્શ નગર રાજ્ય.

સદર્ભ ગ્રંથો:-

૧. વિશ્વનો ઇતિહાસ - ડૉ. ધારૈયા
૨. સમુળી ક્રાંતિ - કિશોરલાલ મશરૂવાલા
૩. આપણો ધર્મ - ડૉ. આ.બા.ધૃવ
૪. સંશોધન પદ્ધતિઓ - ડૉ. એ.જી. શાહ અને જે. કે દવે
૫. ધર્મોનું મિલન - ડૉ. રાધાકૃષ્ણન
૬. ભારતીય તત્વજ્ઞાન - ડૉ. સી.વી. રાવળ
૭. જગતના ધર્મો - જે.એ યાજ્ઞિક

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -102	19070402011100	Rural development in india	2	30	70	--	2.5 Hrs

Title: Rural Development in India

Objectives:

Course:

100%

UNIT-I

20%

- Antiquity of the term Gramin (rural)
- The meaning the term development
- Rural life in India through the ages – Ancient India, Medieval India and Modern India.
- Impact of Modern World on Indian Rural Life in early 20 Century.
- Rural life in post independent India.

Unit-II

20%

- The ‘why’ of Rural Development in India.
- The dimensions and approaches of Rural Development.
- Indian Government Rural Development Administration and Approach.
- Plans and Schemes of Rural Development in India.

Unit-III

20%

- Characteristics of Indian Rural Life.
- Agricultural Scenario in Independent India.
- National Agriculture Policy
- Problems of Indian Agriculture.
- Experiments in Rural Development Planning – Nelokheri experiment, Firkka experiment, Itwa Pilot Project, Gurgaon Planning, Sri Niketan experiment.

UNIT-IV

20%

- Studies in Contemporary Models of Rural Development- Ralegaon experience, Tarun Bharat Gangh, SEWA, Chipko movement, Growth Centres, Krishi Vigyan Kendra, Gramodaya Model
- Christian Missionary experiments in tribal communities.

UNIT-V

20%

- Rural Reconstruction – ‘Gramin Punarachana’ – Its conceptual frame-work
- Rural Reconstruction in India

References:

1. An Introduction to Agricultural Economics - Bilsrami SAR
2. Agricultural Problems in India - Sadhu and Sing
3. Rural Development - Sundharam I.S.
4. Indian Agricultural Economics - Rudra A

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -102	19070402011200	Olericulture	2	30	70	--	2.5 Hrs

Title: Olericulture

Objectives:-

- (1) Student gets knowledge about vegetable production
- (2) To know the principal of vegetable production so useful in progressive farming.
- (3) Create self - employment source.

Theory: -

100%

Unit: 1 Defination, importance, scope, and problems of vegetable growing 20 %

Unit: 2 Importance of Hybrid varieties and seed production in vegetables 20 %

Unit: 3 Seedling and Bordeaux mixture in seedling in vegetables 20%

Unit: 4 Plant growth regulator, Weed and weed management 20 %

Unit: 5 Crop protection & Fertilizer requirement in vegetables. 20%

References

- (1) “ Shakhaji vigyan ” (Gujrati edition) – Babubhai Avarani.
- (2) “ Shakhaji pako ni kheti ” (Gujrati edition dec. -2013)
pub.: Directore of extension education, J. A.U., – Junagadh.
- (3) “ Shakhaji ” (Gujrati edition may-2009)
pub.: Directore of extension education, A. A. U., – Anand.

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -103	19070502011300	Natural resources & Management	2	30	70	--	2.5 Hrs

Title: Natural Resources Management

Objectives:-

1. Students identify the environment and natural resources.
2. Students will become aware about different kinds of pollution.
3. Students understand the importance of energy.
4. Students become aware about the global problem of the environment laws.

Course: **100%**

Unit: - 1 Environment and natural resources. 20%

- 1.1 Definition of environment, Environment on the earth.
- 1.2 Cycles which keep the environment in balance.
- 1.3 Manmade and natural environment.

Unit: - 2 Pollution 20%

- 2.1 Definition of pollution, Types, Cause and effects.
- 2.2 effect of pollution on human life.

Unit: - 3 Environment & Society 20%

- 3.1 "Eco-Friendly" Approach for conservation and protection of natural resources.
- 3.2 "Chipko Andolan".
- 3.3 Environmental acts: air, water & protection

Unit: - 4 Energy 20%

- 4.1 Definition of energy, types.
- 4.2 Merits and demerits of renewable sources of energy.

Unit: - 5 Environment Conservation 20%

- 5.1 Soil
- 5.2 Energy
- 5.3 Forest

Reference

1. Paryavaran sath. - Ramesh Savaliya
2. Environment and seismic engineering - Dr.M.B Gohil
3. Paryavaran shastra - Bipinbhai joshi
4. Paryavaran - Dr.M.B.Gohil
5. Chalo jagiyre paryavaran bachaviye - Dr.Rameshchandra J. Bhayani.
6. Kudarat Sampati vikat andvyavasthapan - Babubhai avarani

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -103	19070502011400	Sociology of tribal society	2	30	70	--	2.5 Hrs

Title: Sociology of Tribal Society

Objective:-

1. To study the sociology of tribal society
2. To Study the Economics classification of tribal
3. To know the problems of tribal society
4. To know about Tribal life style of Tribal Society.

Course:-

100%

Unit: - 1 Sociology of Tribal Society.

20%

- 1.1 Meaning, Concept, usefulness of Tribal Society.
- 1.2 Definition and character of schedule tribes.

Unit: - 2 Economic Classification of S.T

20%

Unit: - 3 Sociological and cultural outlines of S.T

20%

- 3.1 Forms of marriage
- 3.2 Status of women in tribal society
- 3.3 Religions beliefs and returns.
- 3.4 Dimensions of cultural.

Unit: - 4 Problems of tribes

20%

Poverty, dept, illiteracy and agriculture problems lifestyle of various

Unit: - 5 Introduction to Tribes in Gujarat

20%

-Bhil, Dubala, Sidi,

Reference:-

1. Adivasi Samajnu Samajshashtra- A G Shah and J K Dave
2. Gujaratna Adivasio_ Shah Vimal
3. Adivasiona Prashno_ Shah Vimal
4. Bhartiya Adivasi Samaj- A G Shah and J K Dave
5. Gujaratna Dubala_ P G Shah

Faculty of Rural Studies

Name of Course	Sem.	Core/ MDC/ Foundation	Course Code	Course Title	Credits	Int. marks	Ext. marks	Prac./ viva marks	Ext. exam time duration
M.R.S.	I	M.MDC -103	19070502011500	Reproduction in farm animals	2	30	70	--	2.5 Hrs

Title: Reproduction in Farm Animals

Objectives:

- (1) To understand Fertilization and Implantation
- (2) To understand Fetal Development and Parturition to understand the basic mechanism of Reproduction.
- (3) To understand How the Reproduction is involved in animal production.
- (4) To understand estrus cycle.
- (5) To know udder and milk secretion.

Course:

Unit-1 Reproductive System - Male Reproductive System: Organs - Female Reproductive System: Organs	30%
Unit- 2 Hormones related to Reproduction.	10%
Unit- 3 Mechanism of Female Reproduction - Gametogenesis: Oogenesis, Spermatogenesis	20%
Unit- 4 Estrus Cycle and Ovulation	10%
Unit- 5 Mammary Gland and Milk Secretion - Structure and Functioning of udder. - Milk Secretion: Factors and Mechanism.	30%

Reference Books:

1. Pashumadarog and Prasutivigyan Part - 1, 2, 3
- S. B. Kodagali, B. K. Bhavsar
2. Pashu Samvardhan - R. K. Shukal
3. A Text Book of Animal Husbandry - G. C. Banerjee.
4. Animal Genetics and Breeding - BAIF