SAURASHTRA UNIVERSITY
P. G. (M.R.S.) CENTER
SAURASHTRA UNIVERSITY – RAJKOT
Choice Based Credit System (CBCS) Course
OF
MASTER OF RURAL STUDIES

VISION :-

The rural faculty of Saurashtra University receives inspiration for rural development in consonance with the vision of Mahatma Gandhi. The rural faculty is mandated to evolve, promote and impart higher education so as to take up emerging challenges for transformation of rural areas. It undertakes academic, research, extension and training programs for the empowerment of the people with a view to ensuring free flow of knowledge, techniques and technologies as a two-way process for betterment of rural life.

MISSION :-

(1) To encourage rural graduates to take challenges for transformation of rural areas.
(2) To build up villages by providing not only education but acquisition of knowledge, understanding and molding of individual through which economic social and cultural development of nation can be achieved.
(3) To unit educational activities with rural problems through training (placement) and project work.
(4) To provide youth leadership in relation to rural society with particular focus on extension, agriculture, animal husbandry, horticulture and rural cooperative services.
(5) To promote research in the area of alternative sources of energy, qualitative improvement in rural product, inventing new tools and equipments for agriculture and dairy farming, eradication of rural unemployment, conducting experiments in traditional knowledge and science, preservation and propagation of the regional folk art forms and inculcation of social value.
Ordinances and Regulations :-

O.M.R.S. – 1 :

The Candidate for the degree of M.R.S. must have passed any of the following degrees with minimum 48% marks or equivalent grade point

1. B.R.S. / B. A. (Rural Studies) from this or any other university recognized by the University.
2. B.S.W. from the recognized University.
3. Graduates from Govt. approved Gram Vidyapeeth.
5. B.A. (Economics / Sociology)
6. B. Com.
7. B. Sc. (Agriculture)
8. B. Sc. (Horticulture)
9. B. V. Sc. & A. H.
10. Other Graduates equivalent to B.A. (Rural Studies)

Conditions :

1. A candidate possessing B. A. (Economics) or B.Com. Degree could select only ‘Economics’ as his / her Core Course.
2. A candidate possessing B. A. (Sociology) or B.S.W. degree can select only Rural Extension as his/her Core Course.
3. A candidate will select his/her Core course in M.R.S. as per his/her Core subject at Bachelor’s degree only.
4. There will be a provision of one seat in each Core course of M.R.S. to get admission, which possesses the degree of B.R.S. (Rural Studies) or B.R.S. having Core Subject as English / Hindi / Gujarati.

O. M. R. S. – 2

Besides the candidates having the required qualifications as per O.M.R.S. – 1, sponsored candidate from Govt. / Semi Govt. / Grant – in – aid institutions and candidate from registered company or establishment, having any other qualification which can be considered as equivalent to graduation can be admitted provided that they fulfill the following conditions.
(1) Employer of the said candidate will permit him / her for M.R.S. full time regular course for two consecutive years.

(2) One who is second class / Grade graduate with 48% of marks or otherwise whose academic achievement is approved as equivalent to graduation by the Saurashtra University.

O. M. R. S. – 3

The M. R. S. (Master of Rural Study) programme being a full time course, a candidate can not join any other job or employment and cannot seek admission in any other courses / programme of this university or educational institution.

O. M. R. S. – 4

The candidates seeking admission in the M. R. S. (Master of Rural Study) have to participate in the labour work assigned to them.

O. M. R. S. – 5

The internal assessment for each semester will be conducted by the Head of the Department center and shall send the results of the same to the University, before commencement of the Semester End examination. The external (semester end) examinations of each semester will be conducted by the University.

O. M. R. S. – 6

The evaluation of each is divided into two parts: Internal and External evaluations. Out of total 100 marks for each course, the weightage of internal evaluation is 30% and that of external evaluation is 70%.

O. M. R. S. – 7

To complete a term (semester) student should remain present out of total teaching days; a candidate must have minimum 80% attendance and should have completed labor work in each semester, to appear in the external examination.

O. M. R. S. – 8

The passing standard for M.R.S. is 40% in each head separately, i.e. for internal as well as for external evaluation.
O. M. R. S. – 9 Rules of promotion shall be as under:

1. From semester I to semester II, if a student undergoes a regular course of study of the semester I and fulfills the required criteria of attendance and secures minimum 40% marks in the internal assessment component of each course of Semester – I.

2. From semester II to semester III, if a student undergoes a regular course of study of the semester II and fulfills the required criteria of attendance and secures minimum 40% marks in the internal assessment component of semester II.

3. From semester III to semester IV, if a student undergoes a regular course of study of the semester III and fulfills the required criteria of attendance and secures minimum 40% marks in the internal assessment component of semester III and has cleared all the courses of Semester – I.

A candidate who fails in a semester, he/she shall be allowed for admission in the next semester as well as to appear in the examination of the next semester.

O. M. R. S. – 10

The final grade of the M.R.S. will be calculated on the basis of Cumulative Grade Point and Overall Grade Point System of Saurashtra University – Rajkot.

Regulations for Master of Rural Studies

R.M.R.S. – 01: Internal Assessment

Internal assessment / evaluation will be made as per following:

The internal assessment would be made throughout the semester by the department. The continuous internal assessment may have components like written test, oral tests, quizzes, assignments, seminars, presentations, projects and institutional visits and / or any combination of these. Regularity and attendance may also be assessed for marking. The proposed internal evaluation would comprise following components:

1. **Written test** = 10 marks: A test of one hour duration for each course will be conducted during each semester.

2. **Assignment / Presentation / Institutional visits** = 10 marks: Each student will have to prepare an assignment or has to present on the topic
given by his/he course teacher or has to visit an institution and will be
evaluated by the teacher, during each semester.

3. **Written Quiz** = 10 marks: During each semester, one quiz test will be
conducted, during the respective period of subject only. This quiz test shall
objective type of question only.

**R.M.R.S. – 02 :**

The candidates seeking admission in the M. R. S. have to participate in labor work assigned to
them compulsorily during the tenure of their study.

**R.M.R.S. – 03 : Course structure :**

The syllabus of M. R. S. is divided in to four semesters and is of two years duration. Semester 1
and semester 2 are offered during first year and semester 3 and semester 4 are offered during
second year. M. R. S. will be offered in alternate year basis.

The course M. R. S. comprises of total of twenty (20) courses. Semester I to IV comprises a total
of five courses in each: one foundation course, one core course and three elective courses. The
total evaluation of M.R.S. comprises of 2000 marks where in each course carries 100 marks.

The detailed evaluation, weekly periods, courses & weight of each semester are given in the
course structure and in the respective courses.

**R.M.R.S. – 04 :**

The external evaluation of **Core – 4** will be done by a panel of two teachers: one of
them will be a course teacher and the other one will be subject expert from the same or other
college. The date and panel for the oral examination for above courses will be decided by the
course teacher only and shall be made known to the university to issue orders.

Distribution of Marks for Core-4 (Semester – IV) :

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<tr>
<th>(1)</th>
<th>Internal assessment :</th>
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<tbody>
<tr>
<td>(i)</td>
<td>Identification and Selection of a problem for project work and preparation of project proposal</td>
<td>= 10 marks</td>
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<td>(ii)</td>
<td>Interest in work, devotion, responsiveness, sincerity and library work</td>
<td>= 10 marks</td>
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<tr>
<td>(iii)</td>
<td>Term paper</td>
<td>= 10 marks</td>
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Above all three components will be evaluated by the respective course teacher.
only.

(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 with equal mark sharing.

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<th>PANEL</th>
<th>VIVA Voce</th>
<th>DISSERTATION / THESIS</th>
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<tr>
<td>Member – 1 (Course Teacher) :</td>
<td>20 + 15 = 35</td>
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<td>Member – 2 (Subject Expert) :</td>
<td>20 + 15 = 35</td>
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**R.M.R.S. – 05 :** The course structure, credits, maximum marks, course short code and title of
each course of Master of Rural Studies are given below:

5.1 Following are the subjects prescribed for M. R. S. programme teaching and
examination scheme.

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

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**SEMESTER-II**

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THE FOLLOWING ARE THE SUBJECTS PRESCRIBED FOR

**SEMESTER-III**

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**SEMESTER-IV**

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<tr>
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<td>Elective-12</td>
<td>2</td>
<td>30</td>
<td>70</td>
<td>100</td>
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<td>30</td>
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<td>100</td>
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<td></td>
<td>16070502041500</td>
<td></td>
<td>2</td>
<td>30</td>
<td>70</td>
<td>100</td>
<td>3. Agriculture Processing And Marketing</td>
</tr>
</tbody>
</table>

---

**R.M.R.S. – 06 : Awards of Grades, SGPA and CGPA**

Credits, Grade Letter, Grade Points and Credit Points

**6.1 Credit** means the unit by which the course work is measured. In these Regulations : One credit means one hour of teaching work.

**6.2 Grade Letter** is an index to indicate the performance of a student in a particular course (Paper). It is the transformation of actual marks secured by a student in a course/paper. It is indicated by a Grade letter O, A, B, C, D, E, and F. There is a range of marks for each Grade Letter.

**6.3 Grade Point** is weight allotted to each grade letter depending on the marks awarded in a course / paper.
Award of Grades:

<table>
<thead>
<tr>
<th>Range of % of Marks</th>
<th>Grade Letter</th>
<th>Grade Point</th>
</tr>
</thead>
<tbody>
<tr>
<td>90 to 100</td>
<td>O</td>
<td>10</td>
</tr>
<tr>
<td>80 to 89</td>
<td>A</td>
<td>9</td>
</tr>
<tr>
<td>70 to 79</td>
<td>B</td>
<td>8</td>
</tr>
<tr>
<td>60 to 69</td>
<td>C</td>
<td>7</td>
</tr>
<tr>
<td>50 to 59</td>
<td>D</td>
<td>6</td>
</tr>
<tr>
<td>40 to 49</td>
<td>E</td>
<td>5</td>
</tr>
<tr>
<td>1 to 39</td>
<td>F</td>
<td>4</td>
</tr>
</tbody>
</table>

6.4 Semester Grade Point Average (SGPA)

Credit Points for the course = No. of Credits assigned for the course x Grade Point secured for the course.

SGPA indicates the performance of a student in a given Semester. SGPA is based on the total credit points earned by the student in all the courses and the total number of credits assigned to the courses in a Semester.

Note: SGPA is computed only if the candidate passes in all the courses (gets a minimum ‘E’ Grade in all Courses)

The following examples illustrate the calculation of Grade Points, Credit Points and Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA). The percentage of marks shown in column III is the marks secured by the student in the Internal Evaluation and Semester End Examination put together.

Example: M. R. S. SEMESTER – I

<table>
<thead>
<tr>
<th>Course code</th>
<th>Credits</th>
<th>% of Marks</th>
<th>Grade Letter</th>
<th>Grade Point</th>
<th>Credit Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>16070102010100</td>
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<td>60</td>
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<td>2x7=14</td>
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<tr>
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<td>50</td>
<td>D</td>
<td>6</td>
<td>2x6=12</td>
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<td>2x8=16</td>
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<tr>
<td>16070402011000</td>
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<td>75</td>
<td>B</td>
<td>8</td>
<td>2x8=16</td>
</tr>
<tr>
<td>Course code</td>
<td>Credits</td>
<td>% of Marks</td>
<td>Grade Letter</td>
<td>Grade Point</td>
<td>Credit Points</td>
</tr>
<tr>
<td>------------------</td>
<td>---------</td>
<td>------------</td>
<td>--------------</td>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
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<td>70</td>
<td>B</td>
<td>8</td>
<td>2x8 = 16</td>
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<td>50</td>
<td>D</td>
<td>6</td>
<td>2x6 = 12</td>
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<tr>
<td>16070302020700</td>
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<td>70</td>
<td>B</td>
<td>8</td>
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<tr>
<td>16070402021000</td>
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<td>16070502021300</td>
<td>2</td>
<td>45</td>
<td>E</td>
<td>5</td>
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<td><strong>Total</strong></td>
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<td></td>
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<td><strong>70</strong></td>
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</table>

Total Credit Points = 70
Total Credits = 10

(M. FND = Foundation, M. Agro = Core Agronomy M. ELT = Elective)

Total Credit Points obtained for all the courses in the Semester – I = 72
Total Credit assigned to all the papers in the Semester – I = 10

**SGPA = Total Credit Points in the Semester – I / Total Credits in the Semester – I = 72/10 = 7.20**

SGPA for SEMESTER – I = 7.20

Example : M. R. S. SEMESTER – II

<table>
<thead>
<tr>
<th>Course code</th>
<th>Credits</th>
<th>% of Marks</th>
<th>Grade Letter</th>
<th>Grade Point</th>
<th>Credit Points</th>
</tr>
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<tbody>
<tr>
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<td>2</td>
<td>70</td>
<td>B</td>
<td>8</td>
<td>2x8 = 16</td>
</tr>
</tbody>
</table>

Total Credit Points = 70
Total Credits = 10

(M. FND = Foundation, M. AH = Core Animal Husbandry, M. ELT = Elective)

Total Credit Points obtained for all the courses in the Semester – II = 70
Total Credit assigned to all the papers in the Semester – II = 10

**SGPA = Total Credit Points in the Semester – II / Total Credits in the Semester – II = 70/10 = 7.0**

SGPA for SEMESTER – II = 7.0

Example : M. R. S. SEMESTER – III

<table>
<thead>
<tr>
<th>Course code</th>
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<th>Grade Letter</th>
<th>Grade Point</th>
<th>Credit Points</th>
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<td>8</td>
<td>2x8 = 16</td>
</tr>
<tr>
<td>Course code</td>
<td>Credits</td>
<td>% of Marks</td>
<td>Grade Letter</td>
<td>Grade Point</td>
<td>Credit Points</td>
</tr>
<tr>
<td>--------------</td>
<td>---------</td>
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<td></td>
<td></td>
<td><strong>68</strong></td>
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</table>

Total Credit Points = 68  
Total Credits = 10  
Total Credit Points obtained for all the courses in the Semester – IV = 68  
Total Credit assigned to all the papers in the Semester – IV = 10  
SGPA = \[
\frac{\text{Total Credit Points in the Semester – IV}}{\text{Total Credits in the Semester – IV}} = \frac{68}{10} = 6.80
\]  
SGPA for SEMESTER – IV = 6.80

### 6.5 Cumulative Grade Point Average (CGPA)

CGPA refers to the Cumulative Grade Point Average weighted across all the semesters (Four Semesters). CGPA is obtained by dividing the total number of Credit Points (CPts) in all the semesters by the total number of credits in all the Semesters. The final result at the end of all the semesters is declared in the form of CGPA.
Note: CGPA is calculated only when the candidate passes in all the courses of all the semesters.

Example: Faculty of Rural Studies M. R. S.

<table>
<thead>
<tr>
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<th>Total Credit Points</th>
<th>Total Credit</th>
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<td>I</td>
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</tr>
<tr>
<td>II</td>
<td>7.00</td>
<td>10</td>
</tr>
<tr>
<td>III</td>
<td>6.20</td>
<td>10</td>
</tr>
<tr>
<td>IV</td>
<td>6.80</td>
<td>10</td>
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</tbody>
</table>

Total Credit Points Obtained From Semester – I to Semester – IV

CGPA = \[ \frac{72 + 70 + 62 + 68}{10 + 10 + 10 + 10} \] = \[ \frac{272}{40} \] = 6.80 i.e. SECOND CLASS

6.6 Description of Grade:

The result of the successful candidates shall be classified as follows:

1. First Division with distinction – CGPA from 8 to 10
2. First Division – CGPA from 7 to 7.99
3. Second Division – CGPA from 6 to 6.99
4. Pass Division – CGPA from 5 to 5.99
### MASTER OF RURAL STUDIES
THE FOLLOWING ARE THE SUBJECTS PRESCRIBED FOR
SEMESTER-I

<table>
<thead>
<tr>
<th>Sr No.</th>
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<td>30</td>
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<td>16070202010200</td>
<td>Core-1</td>
<td>2</td>
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<td>30</td>
<td>70</td>
<td>100</td>
<td>2. Horticulture &amp; Forestry-1</td>
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<td>16070202010400</td>
<td></td>
<td>2</td>
<td>30</td>
<td>70</td>
<td>100</td>
<td>3. Animal Husbandry-1</td>
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<td>100</td>
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<td>100</td>
<td>1. Water Resource Management</td>
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<td>70</td>
<td>100</td>
<td>2. Pomology</td>
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<td>16070302010900</td>
<td></td>
<td>2</td>
<td>30</td>
<td>70</td>
<td>100</td>
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<td>30</td>
<td>70</td>
<td>100</td>
<td>2. Sociology of Tribal Society</td>
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<td>2</td>
<td>30</td>
<td>70</td>
<td>100</td>
<td>3. Reproduction in Farm Animals</td>
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</tbody>
</table>
Faculty of Rural Studies

<table>
<thead>
<tr>
<th>Name of Course</th>
<th>Seme ster</th>
<th>Core/ Elective/ Foundation</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Internal marks</th>
<th>Extern al marks</th>
<th>Pract ical/ viva marks</th>
<th>External exam time duration</th>
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<tr>
<td>M.R.S.</td>
<td>1</td>
<td>Foundation-1</td>
<td>16070102010100</td>
<td>Rural Technology</td>
<td>2</td>
<td>30</td>
<td>50</td>
<td>20</td>
<td>2.5 Hrs</td>
</tr>
</tbody>
</table>

Title: Rural Technology

Objectives:-

1. Student aware with knowledge of resources in rural area
2. Student aware with voluntary organization so can use in his area development program

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 (in brief) 20%
  - 2.1. Spray pump
  - 2.2. Harrow
  - 2.3. Plough
  - 2.4. Loan mover
  - 2.5. Dibbler
  - 2.6. Spade
  - 2.7. Potato digger
  - 2.8. Rotavator etc.

**Unit 3**

- Green House technology 15%
  - 3.1 Importance, Scope & Types,
3.2 Cultivation in green house:  a. Rose b. Carnation c. Lilies d. Chrysanthemum
e. Gerbera

**Unit 4** Use of Plastic in Horticultural Crop  
- 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  
- 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)  
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 :- 15%
2.1 What is sampling
2.2 Importance of sampling
2.3 Methods of sampling

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

Unit:-4 Field experimental design: - 40%
1.1 Aims and classification of experimental design and uniformity trials
1.2 Simple designs of experiments
1.2.1 Paired design of experiment
1.2.2 Completely Randomized Design
1.2.2 Randomized Block Design
1.2.3 Latin Square Design

**Unit:-5** Care to be taken during field experiments

**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 Design
   - Chandel R.S.
4. “*Samajik Sansodhan Paddhatio*” (Gujarati Edition)
   - A.G. Shah & J.K. Dave
Faculty of Rural Studies

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
Definition, importance, scope, and problems of fruits (10 %)

Unit: 2
Planting (20 %)
- Care at the time of plantings
- Land preparation at the time planting
- Sowing distance

Unit: 3
Varietal characteristic of fruits (20%)

Unit: 4
After care in fruit crops (25 %)
- Training and pruning in fruit
- Fertilizer requirement
- Weed and weed management
- Treatment of “Bahar”

Unit: 5
Integrated pest management in fruit crops. (25%)

References

(1) “Fal ane Ful” (Gujrati edition- march 2015)
Pub.: Director 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)

Faculty of Rural Studies

<table>
<thead>
<tr>
<th>Name of Course</th>
<th>Seme</th>
<th>Core/ Elective/ Foundation</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Internal marks</th>
<th>External marks</th>
<th>Pract/ viva marks</th>
<th>External exam time duration</th>
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<tbody>
<tr>
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<td>1</td>
<td>Core-1</td>
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<td>Animal Husbandry-1</td>
<td>2</td>
<td>30</td>
<td>50</td>
<td>20</td>
<td>2.5 Hrs</td>
</tr>
</tbody>
</table>

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: 20%

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

Unit-2: 20%

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

Unit-3 20%

1. Methods of Breeding and Their merits & demerits
2. Animal Selection: Methods, Their merits and demerits

Unit-4 20%

1. Fertility affecting breeding efficiency and measures to promote breeding efficiency
2. Selection criteria for breeding bulls at puberty and at adulthood

Unit-5 20%

Reference Books:

1. Pashumadarog and Prasutivigyan Part - 1, 2, 3
   - S. B. Kodagali, B. K. Bhavsar
2. Pashu Samvardhan - R. K. Shukal
4. Animal Genetics and Breeding - BAIF
Faculty of Rural Studies

<table>
<thead>
<tr>
<th>Name of Course</th>
<th>Seme ster</th>
<th>Core/ Elective/ Foundation</th>
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<th>Credits</th>
<th>Internal marks</th>
<th>Extern al marks</th>
<th>Pract ical/ viva mark s</th>
<th>External exam time duration</th>
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<td>Core-1</td>
<td>16070202010500</td>
<td>Rural Extension-1</td>
<td>2</td>
<td>30</td>
<td>50</td>
<td>20</td>
<td>2.5 Hrs</td>
</tr>
</tbody>
</table>

**Title: ग्राम विकासनी ईलिटास्या**

**देयुः:-**

1. व्यक्तिगत अनेक संयुक्त जागरूकता तैयार कर्यावर.
2. सार्वजनिक पोषण अनेक कस्टमर विशेष विश्वासार्त विश्वास जागरूक कर्यावर.
3. ग्राम विकासनी अभ्यास परिभाषण मात्र विश्वासार्त विश्वास जागरूक कर्यावर.
4. स्वच्छ परिसंचार मात्र विश्वासार्त विश्वास जागरूक कर्यावर.

**अव्यासक्रम**

**अक्षेत्र :- १** ग्राम विकासनी प्रयास ग्राम विकासनी कार्यां ग्राम विकासनी ईलिटास्या, अनेक ग्राम विकासनी देयुः.

**अक्षेत्र :- २** ग्राम विकासनी संस्थान (अंजनीसह) रोजगार, 20%  
1. D.R.D.A.  
2. सार्वजनिक संस्थान.  
3. ट्रिजेम.  
4. आशिकाली योजनानाथ.

**अक्षेत्र :- ३** व्यक्तिगत अनेक सामुदायिक कार्य रोजगारी योजनानाथ. 20%  
1. SGSY  
2. नारेशा.  
3. पॉटरेंस.  
4. गृह मुझ. ग्राम योजना.

**अक्षेत्र :- ४** ग्राम विकासनी NGO नो क्राणो, क्राणो, विभागना तथा तेंदुः कार्यक्रम रोजगार, 20%  

**अक्षेत्र :- ५** ग्राम विकासनी सार्वजनिक क्षेत्रां सुवासने, महिला अनेक पेक्षातनो रोज तथा सार्वजनिक भेडिट्री, 20%  

**सादर्भ श्रेणी:-**

1. भारतीय सामाजिक संस्थानों - प्रो शाखा / शोधी  
2. ग्राम विकास - ले. शाखाच्या अवरणी.  
3. भारत गरीबी - ले. रोक्त गुडळा.
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<thead>
<tr>
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<td>Rural Economics-1</td>
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<td>30</td>
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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. Economics & enable then to analyze the issue.

UNIT-1 The place of agriculture in the national economy 20%
Agriculture growth since 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, 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. suorces of credit for Indian farmers – institutional and 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

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<td>16070302010700</td>
<td>Water Resource Management</td>
<td>2</td>
<td>30</td>
<td>50</td>
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<td>2.5 Hrs</td>
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</tbody>
</table>

**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 :**

<table>
<thead>
<tr>
<th>Unit :</th>
<th>Introduction to water Resource Management.</th>
<th>100%</th>
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<tbody>
<tr>
<td>1.</td>
<td>Best development of Resource Management proper use and management of water Resource.</td>
<td>25 %</td>
</tr>
<tr>
<td>1.1</td>
<td>Aspect of Water Resource Management.</td>
<td></td>
</tr>
<tr>
<td>1.2</td>
<td>Role of various agencies in water resource management.</td>
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<table>
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<th>Unit :</th>
<th>Ground Water</th>
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<tbody>
<tr>
<td>2.1</td>
<td>Introduction.</td>
<td></td>
</tr>
<tr>
<td>2.2</td>
<td>Ground water importance and Present situation.</td>
<td></td>
</tr>
<tr>
<td>2.3</td>
<td>Use of Ground Water.</td>
<td></td>
</tr>
<tr>
<td>2.4</td>
<td>Limitation of usages of Ground Water.</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Steps to Increase Ground Water.</td>
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<table>
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<tr>
<th>Unit :</th>
<th>Watershed Management</th>
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<tbody>
<tr>
<td>3.1</td>
<td>Introduction.</td>
<td></td>
</tr>
<tr>
<td>3.2</td>
<td>Points kept in mind while selecting watershed site.</td>
<td></td>
</tr>
<tr>
<td>3.3</td>
<td>Type of development works under water shade treatment.</td>
<td></td>
</tr>
<tr>
<td>3.4</td>
<td>Terms related with watershed.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Self held group.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Use group.</td>
<td></td>
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<tr>
<td></td>
<td>- Homogeneous group.</td>
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</tr>
<tr>
<td></td>
<td>- Watershed.</td>
<td></td>
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</tbody>
</table>
3.5 Characteristics of watershed.

Unit : 4  Water harvesting.  
10 %

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.
   5. Plantation tree.
   6. Well recharge.

Unit : 5  Advance Water Application Method  
25 %

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. Popat
3. नुसार संपत्ति - विकास अने व्यवस्थापन – बाणुनाई अवराळी
4. Rain water Harvesting – Arnold Racey.
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<table>
<thead>
<tr>
<th>Name of Course</th>
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<td>50</td>
<td>20</td>
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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: -

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

Unit: 2  Planting 20%
- Care at the time of plantings
- Land preparation at the time planting
- Sowing distance

Unit: 3  Varietal characteristic of fruits 20%

Unit: 4  After care in fruit crops 25%
- Training and pruning in fruit
- Fertilizer requirement
- Weed and weed management
- Treatment of “Bahar”

Unit: 5  Integrated pest management in fruit crops. 25%

References
(1) “Fal ame Ful” (Gujrati edition- march 2015)
(2) “Falpako” (Gujrati edition- march 2013)
   pub.: Directore of extension education, A. A. U., Anand
(3) “Fal visheshank” (Gujrati edition)
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<td>16070302010900</td>
<td>Philosophy and Contents of Extension</td>
<td>2</td>
<td>30</td>
<td>50</td>
<td>20</td>
<td>2.5 Hrs</td>
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</table>

**Title:** Philosophy and Contents of Extension

**हेतुः:-**
1. विद्यार्थीही विस्तारशिक्षणी महत्त्वनी भाषातील विषयांमध्ये जाग. 
2. विद्यार्थीही विस्तारशिक्षणी ऐतिहासिक अनेक सिद्धांतांतून परिचित बने. 
3. परंपरांनी विस्तारशिक्षण सेवांमध्ये महत्त्वाच बने. 
4. भारतीय ग्रामीण समाजात महत्त्व. 
5. सामुहिक विकास अर्थव्यवस्था क्षेत्रात महत्त्व.
અંકમ : - ૫  
સામુદ્રિક વિકાસ અધિકાર્કરણ કરતવો :  
1. ભોમિયા તરીકે  2. કર્યશાળાઓ તરીકે  3. નિવૃત્તિ તરીકે  4. ચિકિત્સક તરીકે.

સહાય અંગો:-
1. હૃદય વિસ્તરણ શિક્ષણ - ઈશ્વરબાઈ પટેલ
2. સામુદ્રિક વિકાસ અને હૃદય વિસ્તરણ - બાબુબાઈ અવરાણી
3. વિસ્તરણ શિક્ષણના મુખતાત્જી - પ્રો. ધીરજ પદ્યાં
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<tr>
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<td>16070402011000</td>
<td>Concept of Social Reconstruction</td>
<td>2</td>
<td>30</td>
<td>50</td>
<td>20</td>
<td>2.5 Hrs</td>
</tr>
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**Title:** Concept of Social Reconstruction

**Objectives:**

(1) विद्यार्थीयों समाजविश्लेषण विषयांमध्ये शाखा अभाष घडणे.
(2) विद्यार्थीयों परम्परा, तत्त्वसाठी अनेक विद्यार्थी समज केलं घडणे.
(3) विद्यार्थीयों क्रीडा अनेक अमेरिकन प्रतियोगी परीक्षणात घडणे.
(4) विद्यार्थीयों कालावधी, अभाषाचे दीक्षण अनेक महाराष्ट्रासाठी विषयांमध्ये शाखा अभाष घडणे.

**अभ्यासमाधी:**

**अभेकं - १** सामाजिकविश्लेषण ओटीटी थंड; त्या मात्र जमते घडडू नाही; सामाजिकविश्लेषणाच्या व्यापक अभ्यास २०% घडणे.

**अभेकं - २** सामाजिकविश्लेषणाच्या संकायात परिणामांच्या १.पर्यंत - पर्यंत ओटीटी थंड; त्या मात्र उपलब्ध घडणे. २. तत्त्वकाय - तत्त्वकायातील प्रतीतीले अनेक घडणे. ३. विज्ञान - विज्ञानातील प्रतीतीले अनेक घडणे.

**अभेकं - ३** ईश्वर अनेक अमेरिकन प्रतीतीले घडणे; अनेक असतील सामाजिक पूर्व; निर्माणाच्या अंदांना व्यापक अभ्यास २०% घडणे.

**अभेकं - ४** सत्यांच्या सामाजिक प्रतीतीले मॅर्टिन ल्युएर्डिंग जूनियर, मॅर्टिन ल्युएर्डिंग जूनियर.

**अभेकं - ५** अभाषाचे दीक्षण अनेक महाराष्ट्रासाठी उपयुक्त अनेक भूमिकांचं.

**सहलङ्गेशी:**

१. विद्यार्थीय तत्त्वसाठी - डॉ. धारे  
२. अमेरिकन प्रतीतीले - विद्यार्थीय दलवाता  
३. अमेरिकन प्रतीतीले - डॉ. भार.म.धुं  
४. संयोजन प्रतीतीले - डॉ. अं.ज. साप अनेक गं. के के के.
Title: Rural Development in India

Objectives:

Course: 

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.

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
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<table>
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</table>

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 variety in vegetables 20 %

Unit: 3  Seedling and seed production in vegetables 20%

Unit: 4  Weed and weed management, Integrated pest management in vegetables. 20%

Unit: 5  - Fertilizer requirement in vegetables.
          - Importance of plant growth regulator in vegetables 20%

References

(1) “Shakbhaji vigyan” (Gujrati edition) – Babubhai Avarani.
(2) “Shakbhaji pako ni kheti” (Gujrati edition dec. -2013)
(3) “Shakbhaji” (Gujrati edition may-2009)
    pub.: Directore of extension education, A. A. U., – Anand.
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<td>2.5 Hrs</td>
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**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:**

**Unit: - 1 Environment and natural resources.**
1.1 Definition of environment, Environment on the earth.
1.2 Definition cycles which keep the environment in balance.
1.3 Manmade and natural environment.

**Unit: - 2 Pollution**
2.1 Definition of pollution, Types, Cause and effects.
2.2 Effect of pollution on human life.

**Unit: - 3 Major Elements of natural resources (water, soil, forest, air)**
3.1 Effect of polluted elements on global environment.
3.2 Effect of natural disaster on public life.

**Unit: - 4 Energy**
4.1 Definition of energy, types.
4.2 Merits and demerits of renewable sources of energy.

**Unit: - 5 Natural resources**
5.1 Place and importance of natural resources of India.
5.2 Care of natural resources
5.3 "Eco-Friendly" Approach for conservation and protection of natural resources
5.4 Nation sanctuaries and natural parks.
5.5 Environmental laws.
5.5.1 The air act 1981
5.5.2 The Water act 1974
5.5.3 The Environment (protection act) 1986

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
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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:-

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 Samajhashtra- 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
Faculty of Rural Studies

<table>
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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

Unit-2 Hormones related to Reproduction.

Unit-3 Mechanism of Female Reproduction

- Gametogenesis: Oogenesis, Spermatogenesis

Unit-4 Estrus Cycle and Ovulation

Unit-5 Mammary Gland and Milk Secretion

- Structure and Functioning of udder.
- Milk Secretion: Factors and Mechanism.

Reference Books:

1. Pashumadarog and Prasutivigyan Part - 1, 2, 3
   - S. B. Kodagali, B. K. Bhavsar
2. Pashu Samvardhan - R. K. Shukal
4. Animal Genetics and Breeding - BAIF
THE FOLLOWING ARE THE SUBJECTS PRESCRIBED FOR

SEMESTER-II

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Title :- Rural Development

Objectives :-

1. The students will aware with the basic problems of rural areas.
2. To aware the Rural peoples about the govt. scheme Related to Rural area.
3. To appraise the students with Rural society.

Theory :

Unit : 1  Economics Development and Economic growth.  20 %
- Meaning and Definition and difference of Economic Development and Economic Growth.
- Indicators of Economics Development.
- Difference between Economic Growth and Economic Development.
- Determination of Requirements of Economic Growth.

Unit : 2  Economic system in Rural India  20 %
- Rural Economic and Rural satisfaction.
- Factors of change in Rural Economy.
- Characteristics of under developed Economy.

Unit : 3  Community Development Programme  20 %
- Meaning of community. Development projects.
- Objectives of community. Development projects.
- Administrative structure of community. Development projects.
- Programmers of community. Development projects.
- Impact on Rural Society.

Unit : 4  Sustainable Developments  20 %
- Sustainable Development’s meaning and Defination.
- Sustainable Development’s indicators.
- Sustainable Development and Growth.

Unit : 5  Government approach policies and programs for Rural
Development.

20%

References :-
2. Rural Sociology – Jagdish Dave.
Faculty of Rural Studies

<table>
<thead>
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<th>Name of Course</th>
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Title: Advance Agronomy

Objectives:

1. To know the advance technique in Agronomy
2. Create sets employment source.
3. To provide knowledge of progressive farming.

Unit: 1 Organic farming. 20%
- Define & Meaning
- Principles of organic farming
- Factor affecting organic farming.
- Merits & demerits of organic farming.

Unit: 2 Hydroponics 20%
- Definition & Meaning
- History of Hydroponics
- Types Of Hydroponics
- Merits & demerits.

Unit: 3 Bio - fertilizer 20%
- Definition & Meaning
- Classification of bio-fertilizers
- Preparation and application of bio-fertilizer

Unit-4 Mushroom Cultivation 20%
- Introduction
- Food value of mushroom
- Cultivation practices of different types of mushroom
Unit-5 Tissue Culture

- Meaning & importance
- Methods of tissue culture

References:

1. Pragatisil Kheti (Gujarati Edition)
   - SSK, JAU- Junagadh
2. Mushroom Cultivation
   - J.N. Kapoor
3. Hydroponics
   - Nagendra Vijay
4. Bacterial Fertilizer
   - B.R. Tilak
Faculty of Rural Studies

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Title: Production Technology in vegetable

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 variety in vegetables 20%

Unit: 3 Seedling and seed production in vegetables 20%

Unit: 4 Weed and weed management, Integrated pest management in vegetables. 20%

Unit: 5 - Fertilizer requirement in vegetables. 20%

- Importance of plant growth regulator in vegetables 20%

References

1. “Shakbhaji vigyan” (Gujrati edition) – Babubhai Avarani.
Faculty of Rural Studies

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Title :- Animal Feeds and Nutrition

Objectives :-
1. To learn Importance of Feed’s and Nutrition.
2. To understand the concentrates.
3. To understand the Animal Nutrition.

Theory :

Unit : 1 Composition and classification of feed stuffs :- Roughages : Dry and Succulent.

Unit : 2 Concentrates :- Energy rich and protein rich :- Energy rich concentrates

Unit : 3 Protein rich concentrates : Plant, Animal & NPN feed stuffs.

Unit : 4 Unconventional Livestock feeds in India
- Vegetable protein sources.
- Animal protein sources.
- Energy sources.
- Miscellaneous feeds.

Unit : 5 Nutrients of feeding stuffs and animal body : water, carbohydrates, protein, Lipids and minerals.
- Feed supplements and buy pass proteins.

References :-
1. पशु आहार - भी. अं. पटेल
   - अं. अं. राधिका
2. पशु आहार (प्रायोजिक) - भी. अं. पटेल
   - अं. अं. राधिका
3. Animal Nutrition - Maynard & Loosli
4. **Animal Nutrition** - A. C. Chaudhari
5. **Gondh** - पंजुपोषण विषयात

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<table>
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**Title:** History of rural Development

1. ग्राम विकासमार्ग पूर्वी प्राकृतिक रुपांतरण.
2. ग्राम विकासमार्ग पूर्वी निर्देशनांक प्राकृतिक रुपांतरण.
3. कृषि पहाडी रुपांतरण.
4. ग्रामीण जनगणना अने आचरण.

**Marks Distribution:**

- **अंकन:** 40%
- **विद्यार्थीसाठी विकासमार्ग पूर्वी प्राकृतिक रुपांतरण:** 20%
- **निर्देशनांक प्राकृतिक रुपांतरण:** 20%
- **प्राकृतिक विलोकन:** 10%
- **विकासमार्ग पूर्वी जनगणना अने आचरण:** 10%

**Additional Notes:**

1. कृषि विकासमार्ग - पूर्वी प्राकृतिक रुपांतरण
2. कृषि विकासमार्ग पूर्वी प्राकृतिक रुपांतरण - प्राकृतिक विलोकन
3. कृषि पहाडी रुपांतरण - पंजुपोषण, ग्रामीण जनगणना
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**Title :-** Banking & Rural Finance

**Objectives :-**
1. To become aware about banking system.
2. To understand importance of credit in Rural Aria.
3. To think about how get easily finance in the Rural Aria.

**Theory :** *100%*

**Unit : 1**  
Importance of Credit in Agricultural, classification of Agricultural Finance.  
Principles of sound Agricultural Credit. *20 %*

**Unit : 2**  
Commercial Bank – Functions, Credit creation – Achievement and problems In Rural Finance.  
Regional Rural Banks (RRBS) – Progress & limitations. *20 %*

**Unit : 3**  
Co-operative credit structure in India.  
Short term structure – objectives, functions & limitations.  
Long term structure – objectives, functions & limitations. *20%*

**Unit : 4**  
NABARD – objectives, functions & limitations  
Concept of micro finance and its relevance for Rural Development. *20%*

**Unit : 5**  
Central Bank – Meaning & Functions  
Instrument of credit creation. *20%*

**References :-**
1. Mitogs – Money and Banking.
2. C. M. Chaudhari – Banking & Finance.
4. S. B. Gupta – Monetary Planning in India.
5. S. S. Tarapoor – Indian Financial Policy.
Title: - Poultry Production

Objective:-
1. To understand the importance of management skills for poultry industries.
2. To Learn about care and management of layer birds and broiler birds.
3. To understand how to make poultry business profitable.
4. To understand the importance of disease control in birds.

Course:

Unit 1 Terminology related to poultry 
- Poultry rearing
- Different methods, merits-demersits

Unit 2 Incubation, hatching and brooding
- Types of Hatching, care during hatching
- Brooding of chicks and types of brooders

Unit 3 Principles of Light requirement and management of birds
- Methods of application,
- Care and management of Layer birds and Broiler birds

Unit 4 Eggs:
- The structure and nutritive value of eggs
- Egg marketing, and wrong beliefs about eggs

Unit 5 Poultry Development Projects
- Different government schemes to establish different poultry businesses
- Institutions engaged in poultry business of the state

Reference:-
1. A text book of animal husbandry - by G.C Banerjee
3. Margha Palan NT Maheta and Ghasura, University Granth Nirman Board- Gandhinagar

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Title: - Leadership in extension Education

Objective
1. Students know about the different types of leaders.
2. Students know about the different methods of leaders working with the people.
3. Students will get information regarding function of leader.
4. Students become aware about the benefits of using local leaders in extension activities.

Course:-

Unit; - 1 Meaning leaders, Leadership
Types of leadership
Style of leadership
1.1 Authoritative
1.2 Democratic.
1.3 laissez faire leadership

Unit; - 2 Method of leader's working
2.1 Use of authority
2.2 Paternalism.
2.3 To help each other.

Unit; - 3 Principles of group dynamics

Unit; - 4 Function of leader

Unit; - 5 Leaders
5.1 Advantage of using local leader
5.2 points to be keep in mind of while work by local leader.
5.3 Use of leader in extension activity.
5.4 Recognition of leader services.
5.5 Qualities of leader, Selection and training.
5.6 Training camp for rural leaders.

Reference:
1. Krish vistran sikshan - Ishwarbhai patel
2. Vistran sikshan na multalv - Pro.Dhiraj Dhakan.

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Title :- Forestry

Objective
(1) Student gets knowledge about forest
(2) To aware with laws of forest and wild life animal
(3) To aware with social forestry and help in forest conservation.

Theory:
100%

Unit: 1 Social forestry
1. Importance
2. Scheme
3. Conservation of forest

Unit: 2 Apiculture (Honey bee keeping)
1. Importance
2. Types of bee
3. Structure of comb
4. Method of honey bee rearing
5. Centers of bee rearing

Unit: 3 Wild life century and national park in Gujarat state
- Introductoty information about wild life animals like; lion, tiger, monkey, deer, leopard, peacock, snake, birds.

Unit: 4 Medals awards of forest department
- the environmentprotection act
- forest conservation act
- the wildlife protection act
20%

Unit: 5 Forest trees and its medicinal use:
1. Satavari
2. Ardusi (Adhatoda vasaca)
3. Nagod
4. Brahmi (Centella asiatica)
5. Kaucha (Mucuna pruita)
6. Arjun (Terminalia anjuna)
7. Harde (Terminalia chebula)
8. Karanj (Pongamia pinnata)
9. Amla
10. Garmalo
11. Galo
12. Jethimadh
13. Mahudo
14. Neem (Azardica indica)

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Title :-  Computer Application

Objectives :-

Unit: 1 Computer Fundamental
- Introduction, History, Characteristics, Functions
  Basic Structure, Generations, Types, Hardware
  Software, Input-Output-Storage Device

Unit: 2 What is Virus?
- Introduction
- How it harms the computer
- Virus Solutions

Unit: 3 MS Office
- MS-world,
  - MS-excel,
  - MS-PowerPoint

Unit: 4 Internet
- Introduction, -
- Use of internet
- E-mail, - merits and limitation
- net -banking

Unit: 5 Uses of Computer in Everyday Life

Reference Books
1. Basic Computer Application
   - H. B. Bhadka, Dr. N. N. Jani, Dr. G. R. Kulkarni
2. Computer Parichay - Computer Jagat
3. Computer Fundamentals

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Title :- Floriculture

Objectives:-
Design a course with objectives of
Student gets theoretical as well as practical knowledge of Flower cultivation practices so useful in progressive farming
Create self - employment source.

Course

Unit - 1 Floriculture
1.1 Definition
1.2 Importance
1.3 Salient future

Unit - 2 introductory information about Flowers
2.1 Annual (Seasonal)
2.2 Biannual

Unit - 3 Cultivation practices of major flowers of Gujarat state .
3.1 Rose
3.2 Marigold
3.3 Chrysanthemum
3.4 Aster and others.

Unit - 4 Greenhouse technology for flower crops.

Unit - 5 Government scheme to motivate flower cultivation & production

Reference:-
1. Floriculture in India
2. Advances in horticulture vol. 12
   -edited by chadhu, K.L and Bhattacharya
   -Malhotra publishing house New delhi
3. Beautiful gardens
4. Creating small gardens
   - Roy Strong
   - Conran Octopus Ltd, London

**Faculty of Rural Studies**

<table>
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<th>Name of Course</th>
<th>Semester</th>
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**Title:** Personality Development

**Objective:**

1. To acquire ability of self development and
2. To develop a protection personality and bring the dreams to a truth.
3. To develop understand about one self as a center self of the globe.
4. To develop self confidence in own work and play an importance role.

**Course:**

**Unit: - 1**  
Personality development (P.D)-  
1.1 Definition, internal qualities,
1.2 Characteristic of P.D-
1.3 To bring importance among human correspondence.
1.4 Internal at steps for efficient personality.

**Unit: - 2**  
Influence of self development.
2.1 Identification of own goals
2.2 suggestions for self development
2.3 keys for self development
2.4 knowledge requirement for P.D
2.5 Three importance dimensions of P.D
2.6 Slogans for successful life.

**Unit: - 3**  
Positive self image
3.1 Types hurdles & evaluations, of self image.
3.2 Factors affects of self image.
3.3 positive effects of self image

**Unit 4**
Self affections & self impression

4.1 characteristics of excessive self affection
4.2 Factors of self realization.

**Unit 5**
Frame of reference.

5.1 Possibility of values of life and its concept
5.2 concept of "myself as a complete personality"
5.3 Fundamental thought & values of modern management.
5.4 Ten styles of management.

**Reference:-**

1. Personality development kevi rite? - Raju Andharia
2. Safalata kem melvaso?
3. Mahiti personlity
### Faculty of Rural Studies

<table>
<thead>
<tr>
<th>Name of Course</th>
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**Title :-** Gujrati

**कृतिः**:-

(1) 'जय सोमनाथ' - कर्मचारी मुनशी.
(2) 'पुष्यमेधानी' श्रेणि वातांश - गोरी शंकर शोभी.

**केन्द्रिः**:-

(1) विद्यार्थियों नववक्ष्य साहित्यस्वरूपनां आस्यान माले.
(2) विद्यार्थियों नवविद्याक्योंना आस्यान माले.
(3) विद्यार्थियोंना कल्पना शक्ति विस्तरे
(4) विद्यार्थियोंं नीतिपत्ता, प्रभावितता, लागणी, संवेदनशीलता जेवा मानवीय गुणो विकसे.

**अन्व्यासंक्रम**

**अक्षम :- 1** नववक्ष्य साहित्य स्वरूपानु पृष्ठभ किकस 10 %

**अक्षम :- 2** कर्मचारी भारेक मुनशीना ज्यान - क्रान्तो परिचय 10 %

**अक्षम :- 3** 'जव सोमनाथ' नववक्ष्यांना समाज लल्ली मुख्यांकन, क्रान्ताव, पात्रलेखन, संवारक्षण, वार्ता, वर्तनक्षण नववक्ष्यांना आरंभ - अंत, शीर्षक वागेनां संदर्भ 30 %

**अक्षम :- 4** नववक्ष्य (हूडीवातिः)ना विकाशविकाश अने सर्व गोरीशंकर जोशीनु - ज्यान - क्रान्त 15 %

**अक्षम :- 5** पुढेेंदुनी श्रेष्ठवातीले नुः समाज लल्ली मुख्यांकन. 35 %

1 श्रेणी रत्र - वातांश - क्रान्ती वातांश स्वतंत्र स्वतन्त्र पाज्या संदर्भां मुख्यांकन. - संदर्भ समाजता वागेने ध्यानांना लल्ली मुख्यांकन.
સહ્યન્યો:-

1. રાજ્ય અને રાજ્યકાર શ્રેષ્ઠી - ગુજરાત સાહિત્ય પરિષદ
2. ગુજરાતી સાહિત્ય ભાગ - ૧ થી ૪ - સં ઉમાશંકર જોશી
3. ગુજરાતી સાહિત્યનો તિરિકોત - રામજાલાલ શૈલ
4. ગુજરાતી સાહિત્યની તૃપ્રવૃત્તિ ભાગ ૧ - ૨ -વિજ્ઞાના સ. વેધ
5. ગુજરાતી સાહિત્યની વિકાસ રેપેટ - ઘીરુમાલી કાઠર
6. નવકાસારા: શિવાય અને સજાક - ધો. નરેશવેલ, પ્રકાશક પ્રવિષ્ટ પુલલા વંભાર, રાજકોટ પ્ર.આ. ૧૯૮૩
7. નવકાસારા સ્વતંત્ર - પ્રભીલ હરેશ ગુજલ. વંબનિમાજન બોર્ડ અભિયાન - પ્ર.આ. ૧૯૮૫
8. ઉમેશિયારા - વિજ્ઞાનાસની, ચંદ્રમાલી પ્રકાશન અમદાવાદ - પ્ર.આ. ૧૯૮૪
9. 'જીયમ સોમનાથ' - કુમા મુન્યાઈ
10. 'પૃમડેતુંગી શ્રેષ્ઠ વાતાવ્રણો' - ગૌરી શંકર જોશી
Faculty of Rural Studies

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**Subject:- English**

Objectives:
1. To strengthen the vocabulary of students.
2. To strengthen the grammar capacity, ability of the students.
3. To introduce the students to English Literature.
4. To generate interest of the students for English Literature.
5. To generate the structural capacity of students for grammar.

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<td>Application writing</td>
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**Reference Books**
- Wren and Martin English Grammar
- Essentials of English Grammar
- Communication Skills Basic Theories by – Ms. Krupa Purohit, Dr. I.G. Purohit
Faculty of Rural Studies

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Title: Economics of Cooperation

Objectives:

1. To understand the philosophy and principles of coop.
2. To know the values of coop. and realize it
3. To understand the importance of cooperatives in agri. and rural development
4. To get introduction of different cooperative societies

Course:

Unit – 1 Origin, Meaning and definition co-operation, Principles, values and characteristics of co-operation, Role of Co-operatives in agri. and rural development. 20%

Unit – 2 Comparison of Cooperation with other economic system like Capitalism, socialism, communism and mixed economy. 20%

Unit – 3 Nature, importance, objectives, function and limitation of – PACS, District central coop. banks, state coop. banks. Processing co – Operative Marketing co – Operative 30%

Unit – 4 Roll of the state in development of co – Operative sector, government controls and its effects on co – Operative activity 15%

Unit – 5 Evaluation of Indian co-operative movement. Successes and limitations 15%

Reference Books

1. Theory, history and practice of co-operative. Bedi .R.D
2. Co-operative movement in India
3. Rural Development co-operation.
   Mathur B.L
4. What is co-operation?
   War buss
5. The law and principles of co-operation.
   Haverl. Calvert
6. Factors Affecting liabilities
   Rao S.B
7. Co-operative in agriculture.
8. Co-operative and rural development.
   Kanitha
THE FOLLOWING ARE THE SUBJECTS PRESCRIBED FOR

**SEMESTER-III**

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**Title:** - Scientific and Technical Writing

**Objective:**

1. To study and use the scientific and technical methods of writing.
2. To study methods of thesis writing and reference citation.
3. To understand different experimental designs and their uses.
4. To know how to write a research proposal and research paper.

**Theory:**

1. **Unit 1:** Dissertation and thesis:
   - Introduction and Detail methodology of thesis writing 20%

2. **Unit 2:** Reference citations:
   - Introduction and methods of reference writing 20%

3. **Unit 3:** Research proposals: its importance and method, points to be considered before implementation of projects 20%

4. **Unit 4:** What is Research and what is Discovery?
   - Types of research and types of discoveries with examples 20%

5. **Unit 5:** Research paper and Proof reading marks
   - Detail methodology of research paper writing and different proof reading marks and their uses 20%
Reference Books:-

1. A text book of animal husbandry - G. C. Banerjee
2. Animal genetics and breeding - BAIF
3. Animal management: introduction animal science - James J. Kiser
4. Dairying in India a review - D.N. Kharady
5. “Kshetra Prayog Ni Karya Paddhati”
   Dr. Ambalal Sendhabhai Patel & Shri Mahesh Ramaniklal Vaishnav
6. Agriculture Statistics in India - P.C. Bansil
7. Field Experimental Design - Chandel R.S.
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**Title:** Techniques For Higher Crop Production

**Objectives:**

1. Students will become aware with advance technology in agriculture
2. Students get knowledge which useful in progressive farming
3. To create self employment

**Unit-1** Soil conservation:
- Introduction
- Types of soil conservation
- Problems & Remedies

**Unit-2** Soil fertility:
- Introduction
- Factors affecting soil fertility
- Management of soil fertility

**Unit-3** Soil reclamation:
- Introduction
- Types of problematic soils
- Types and characteristics of saline soil
- Reclamation of saline soil

**Unit-4** Tillage:
- Introduction
- Objectives of tillage
- Types of tillage
- Merits & Demerits of tillage

**Unit-5** Micro irrigation

---

Rural Faculty (P.G.) -2016
- Concept of sprinkler irrigation
- Concept of drip irrigation

References:

1. Jamin Vigyan ane vyavastha (Gujarati Edition)
   - Babubhai Avarani
2. Jamin Vigyan ane pak utpadan (Gujarati Edition)
   - Dr. A.S. Patel & Dr. R. S. Joshi
3. Water resource management
   - Anil K. Popat
4. Manures and Fertilizer
   - R. S. Yawalkar, J.P. Agrawal and S. Bokde
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Title: Applied Forestry

Objectives:

(1) Student gets knowledge about forest
(2) To aware with laws of forest and wild life animal
(3) To aware with social forestry and help in forest conservation.

Theory: - 100%

Unit: 1 Social forestry

1. Importance
2. Scheme
3. Conservation of forest

Unit: 2 Apiculture (Honey bee keeping)

1. Importance
2. Types of bee
3. Structure of comb
4. Method of honey bee rearing
5. Centers of bee rearing

Unit: 3 Wild life century and national park in Gujarat state

- Introductory information about wild life animals like; lion, tiger, monkey, deer, leopard, peacock, snake, birds.

Unit: 4 Medals awards of forest department

- The Environment protection act.
- The wildlife protection act.
- Forest conservation act

Unit: 5 Forest trees and its medicinal use:

1. Satavari
2. Ardusi (Adhatoda vasaca)
3. Nagod
4. Brahmi (Centella asiatica)
5. Kaucha (Mucuna pruita)
6. Arjun (Terminalia anjuna)
7. Harde (Terminalia chebula)
8. Karanj (Pongamia pinnata)
9. Amla
10. Garmalo
11. Galo
12. Jethimadh
13. Mahudo
14. Neem (Azardica indica)

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<td>30</td>
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</table>

**Title :-** Dairy Industry

**Objectives :-**

1. To understand the importance of dairy industry.
2. To know various dairy industry problems and how to overcome from them.
3. To know how one could help to villagers for preservation of milk and milk products.

**Theory :**

**Unit : 1**
- Importance of Dairy Industry.
  - Milk Production in the world : An overview. 20 %

**Unit : 2**
- Milk consumption & availability per capita.
  - Milk types and their specifications. 20 %

**Unit : 3**
- Sources of Contamination of Milk and control measures.
  - Milk testing : society level & dairy level. 20 %

**Unit : 4**
- Storage of Milk : methods and advantages : Heating.
  - Chilling & by adding preservatives. 20 %

**Unit : 5**
- Diseases transmitted through milk and their preventive measures.
- Adulteration in milk and its test: Adulterants used and their testing methods.

References:

1. Dairy Vigyan - C. H. Joshi
2. Dudh and Dudhni Banavato (Gujarati) - B. M. Patel
3. Text Book of Dairy Science - Henny, Judkin
4. Dairying in India – Review - D. N. Kharady
5. Dairy Microbiology - K. C. Mahanta
# Faculty of Rural Studies

<table>
<thead>
<tr>
<th>Name of Course</th>
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**Title:** Rural Extension

**हेतुमा:-**

1. विद्यार्थीहरू सामुदायिक विकास योजनालाई उदेश्याधीन परिवर्तन गर्नुहोस्।
2. विद्यार्थीहरू सामुदायिक विकास योजनालाई कार्यक्रममा माध्यमिक जगाउनु हुनेछ।
3. विद्यार्थीहरू सामुदायिक विकास योजनालाई पहिलो माध्यम सम्म पाइँदै।
4. विद्यार्थीहरू ग्राम अर्थ व्यवस्थाहरूमा परिवर्तन लागाउनु लाई परिषद विश्व राष्ट्रीय गर्नुहोस्।

**अथवाप्रमाणम्**

- **अेकम : 1** सामुदायिक विकास योजनालाई अर्थ
  - सामुदायिक विकास योजनालाई हेतुमा (उदेश्य)
- **अेकम : 2** सामुदायिक विकास योजनालाई कार्यक्रम
  - सामुदायिक विकास योजनालाई ग्रामीण समाज पर असार
- **अेकम : 3** सामुदायिक विकास योजनालाई विभिन्न विभाग
- **अेकम : 4** ग्रामीण अर्थव्यवस्थाहरूमा परिवर्तन लागाउनु परिषद
- **अेकम : 5** ग्रामीण अर्थव्यवस्था पर ब्रिटिश अभावर असार

**सहर्षम ग्रंथिका:-**

1. ग्रामीण समाजशासन - ने. भ. शाखा
2. अवधिक विस्तारित विकास - उन्नतस्वरूप प्रदेश
3. विस्तारित विकासमा सुगमताहरू - प्रो. प्रीत पक्का
Faculty of Rural Studies

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**Title :-** Rural Economic Development

**Objectives :-**

1. To aware about importance of rural Economy.
2. To get informed about – rural Economic problems.
3. To think about the remedial measures of rural Economic Development.

**Theory :**

**Unit : 1**
Meaning and salient features of Rural Economy.
Significance of Rural Development.

15 %

**Unit : 2**
Negative factors and rural Development.

20 %

**Unit : 3**

25 %

**Unit : 4**

15 %

**Unit : 5**
Food security in India – concept of Food security, Food self – sufficiency and Food security in India – Public Distribution system (PDS) and its impact on
References :-

Faculty of Rural Studies

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**Title :** Environmental Economics

**Objectives :**

1. To acquaint student with. The basic Theories of Environment Economics.
2. To appraise and sensitive student about major Environmental issues of India.
3. Develop skill to analyze them with the help of appropriate theoretical frames.

**Theory :**

**Unit : 1**

Meaning of environment Economics, various definition and nature of Environment economics meaning, Definition and features of planning. 20 %

**Unit : 2**

Relation between environment and development. Theory of sustainable Development and problems of operationalising this theory. 20 %

**Unit : 3**

Agriculture development and environment problems. Changing land use and Cropping pattern and environmental issues. The problems of grazing – land. The problem of conservation of forest and biodiversity. Supply and quality Of ground water and its management. 20 %

**Unit : 4**

Change in growth and structure of industries in India. Growth of pollutant Industries problems of air and water pollution management of solid and liquid Wastes. 20 %

**Unit : 5**

Environment policy in India important environmental laws. Natural Resources And Agriculture Development Policy. 20 %

**References :**

1. Development & Environment Economics – Dr. Mahesh Joshi
Title:- Crop Disease and Weed-control

Objectives:-
1. To aware the students about plant diseases
2. To introduce the students about the causes, infection and symptoms of diseases in plants.
3. To inform the students about detailed control measures of plant diseases.
4. To aware the students about weed and weed control.

Theory:-

Unit-1 What is diseases? Its importance, classification, causes, infection and dispersal 20%

Unit:-2 Introductory study to Bacteria, Fungi and Viruses. 20%

Unit:-3 Study of symptoms of plant diseases. 20%

Unit:-4 Principles of diseases control and chemical use in disease control. 20%

Unit:-5 Weed and weed control 20%
   5.1 Definition and classification of weed
   5.2 De-merits of weed
   5.3 Uses of weed
   5.4 Dispersal of Weed

References:
1. Plant Disease ( 6th edition)
   -R.S.Singh
2. Disease of crop plant in India
   -G. Rangaswami
   - S. B. Chattopadhyay
4. Introduction to principles of plant pathology (3rd Edition)
   - R. S. Singh
5. Sampurna Pak Sanrakshan Part-II ( Gujarati Edition)
   - Babubhai Avarani
Faculty of Rural Studies

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**Title:** Rural Extension

**विषयांक:**

1. विषयांक - 1

विषय: विषय

साधन, भारतमां विषयीतंत्र प्रभावी विकास.

**विषयीतंत्र प्रकार:**

1. डिग्रीविषय: तेना शाखा अने गेलेक्सिया.
2. डिग्रीविषय: तेना शाखा अने गेलेक्सिया.

**विषयांक - 2**

2. डिग्रीविषय अने विषयीतंत्र विषयीत विविधांक.

1. विषयीतंत्र परिचय.
2. शाखा अंगेना परिचय.
3. ताता परिचय.
4. कायमकारी.

**विषयांक - 3**

विषयीतंत्रांतून कार्यक्षेत्र

1. आध्यात्मन 2. संगठन
3. मोडेल 4. निर्देशन
5. संकलन 6. दैनिक रेपोर्ट
7. अनेकांक तेही कर्ये 8. अंतिम जात्रा
8. મુલ્યાંકન 10. જવાબદારી.

અંક 3: 4
વિદ્યાલયના સિદ્ધાંતો:
1. સંક્લિનના સિદ્ધાંત.
2. જવાબદારી અને સમાન સિદ્ધાંત.
3. આદિશાના અહેંટાનો સિદ્ધાંત.
4. સ્ટેટનો સિદ્ધાંત.
5. નિમંત્રણનો સિદ્ધાંત.
6. પ્રશાસનના સિદ્ધાંત.

અંક 3: 5
વિદ્યાલયમાં ભાષયનો: 20%
1. અલાદાર વિદ્યાલયની ભાષયનો.
2. અલાદાર વિદ્યાલય કર્મનાં ભાષય.

સચિવ ગાંધો:-
1. કૃષ્ણ વિભાગ શિક્ષણ અનુસ્થાન પટેલ
2. વિભાગ શિક્ષણ પુષ્પકાંત - પ્રો. પીજરચ ગાંધા.
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**Title: समाज नवनिर्माणाभ्यांत सिद्धांतो अने प्रकटिको**

**हेतु:-**

(1) विद्यार्थीहों लेख्य धर्म अने तेना साहित्यकी परिचित गर्न।

(2) विद्यार्थीहों शास्त्र, महावीरनाने ज्ञानाती परिचित गर्न।

(3) विद्यार्थीहों प्रबोधमाध्यम, आर्थिकसमाज, प्राथ्म्यना समाज विकासको ज्ञान मेगवे।

(4) विद्यार्थीहों स्वाभाव अने स्वाभिमाननागर्भ संप्रदायको ज्ञान मेगवे।

**अन्व्याक्रम**

**अंकम - 1**

लेख्य धर्म

1. श्रुति अने स्मृति साहित्य
2. प्रमाण प्रायोगिक प्राविधिक
3. रामायण, महाभारत र सामाजिक अभिज्ञता
4. भागवद्गीता र मानव धर्म र प्राविधि

**अंकम - 2**

प्राकृति, प्राचीन अने जैन धर्म र

1. प्राचीन स्वास्थ्य क्षेत्र अने उपदेश
2. धैर्य वान अने उपदेश
3. महावीर स्वामीतून ज्ञान अने तेना सिद्धांतो

**अंकम - 3**

बीमार अने ईलाम धर्म र

1. गीतम अने आर्थिक अध्ययन मार्ग
2. महामन्द पथजानतून ज्ञान अने ईलामनाने सिद्धांतो

**अंकम - 4**

समाज सुधारसामान अकादमि.
એકમ : - ૫
 સમાચર સુધારણા અને સામાજિક પ્રવત્તન
 ૧. વિયોગસૌનીક સોલ્યાની
 ૨. સાંસદ્ય પ્રવૃત્તિ
 ૩. સાંમીતારાયણ સંચાલન

સાહિત્યધ્યાય:-
 ૧. જગતના વિવભાગ ધામી - ડી. આ આંશિક
 ૨. જગતના ધામી - શી. જ. ડેસાઈ
 ૩. આજ્ઞા ધામ - જા. જા. દૂવ
 ૪. તાપ ધ્રુવ - ડી. ચી. કોઢરી
 ૫. રોજ ધ્રુવ - જાં. જા. કે. બાદ
 ૬. ધામનં તુલનાત્મક અધ્યાય - શી. જ. ડેસાઈ
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**Title :-** Disaster Management

**Objectives :-**

1. To understand the natural disaster.
2. To know remedial steps in disaster.
3. To know organizations working in disaster management.
4. To understand civilian responsibility in disaster.

**Theory :**

**Unit : 1** Disaster Management.

1. Introduction
2. Natural Disaster
3. Man – made Disaster

**Unit : 2** Disaster management – Nature and working system.

1. Disaster management policy
2. Disaster management plan
3. Disaster relief and rescue management

**Unit : 3** Disaster management and voluntary services organization.

1. Role of voluntary organization in Disaster management
2. Some Hints to voluntary organization

**Unit : 4** Some points related to Disaster management.

1. Disaster management Education
2. Disaster management Research
3. Some problems related to Disaster management

Unit : 5  **Disaster management – some experiences**  10 %

1. Disaster management in Gujarat

References :-

1. Disaster management – Dr. Ramnik J. Yadav
2. Essentials of Environment & Seismic Engineering – Dr. M. B. Gohil, Anil K. Popat
3. परिवर्तन अभ्यास – UGC Arech Bharucha.
Title: Social Engineering

Objectives

1. to know structure of social engineering
2. to know current status of social engineering
3. to understand importance of marriage in ancient and current perspectives

Course: 100%

UNIT-1 20%

- Social-Engineering: Meaning, message and purpose.
- Definition of individual, group, society and community
  Properties of Human potential E.g., Emotion intelligence (E.I.) and Spiritual Intelligence (SI)

UNIT–2 20%

- Social – Engineering : Current status
- Tools of Social – Engineering and linking it with development devices.
- Status and role of family structure in sustainable social development.

UNIT-3 20%

- Marriage – as a tool of multiplying development devices.
- Ancient Indian approaches in marriages settlements.
- Current status of marriage institutions
- Marriage concerned Indian laws.

UNIT-4 20%

- Group – Dynamics – meaning role and strategies
• Team: Definition, purpose and role
• Strategies of Team – building and task allotment
• S.H.G. as a tool of current rural development; SWOT Analysis.

UNIT – 5

Strategy for creating Social Engineering in India:
• Cutting edge Phase-1 (Next Five Years)
• Cutting edge for Phase – 2 (Next Ten Years)
• Cutting edge for Phase – 3 (Next Fifteen years)

संदर्भांक:–

1. आमीजा अने नगर समाजशास्त्र – प्रो. अ.ज. शास अने प्रो. अ.डे. ठाके
2. आमीजा समाजशास्त्र – प्रो. अ.ज. शास
3. सामुदायिक विकास अने वृत्ति विस्तार– आमुमाई अबराणी
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**Title: संशोधन पद्धतियों**

**वेतन:-**

(1) संशोधननी टेक्निकलों उपयोग करून विद्यार्थींच्या वैज्ञानिक वेळनेच्या विकासात.

(2) संशोधन अने विश्लेषण क्षेत्रातील समाधानासाठी.

(3) सामाजिक वेतन संशोधनातील स्थान अने महत्त्वाचे कार्य.

(4) संशोधनाच्या साधन वापर करून विण्यास.

**अध्यायांमधे**

**奥林म:- 1**

विद्यार्थींच्या अर्थ, व्याप्त, व्यक्तित्व तथा संशोधनाची समवेतील महत्त्व, अर्थात्त तेन्या प्रकाशी. 20 %

**奥林म:- 2**

सामाजिक संशोधनातील महत्त्व अने तेन्या वेतनातील.

**奥林姆:- 3**

संशोधनाच्या महत्त्वाची वेतन अर्थ, प्रकाश, गोष्ट महत्त्वाची अने प्रामाणिक महत्त्वाची, तेन्या स्त्रोत, अर्थात्त अनेक स्त्रोतांतून अर्थात्त महत्त्व.

**奥林姆:- 4**

संशोधनाची महत्त्वाची वेतन एका कर्तव्याची पद्धतिमध्ये १. नियोजन २. प्रस्तावपत्री. ३. संशोधन -

**奥林姆:- 5**

(अ) संशोधनाच्या महत्त्वाची रेल करून.

1. कोरिकरक - तेनी अर्थ, प्रकाश अने तेनी महत्त्व.

2. आधूनिक - विज्ञानात्तम कश्तकात, तेनी महत्त्व अने तेनी प्रकाशी.

(बी) संशोधनाच्या महत्त्वाच्या वाळणाच्या तेनी अर्थ, महत्त्व, पावस वर्ग, प्रवृत्ती, संशोधन लेख, सारांश अहवाल

20 %
सहर्ष प्रारूप:-

1. सामाजिक संशोधन पत्रिकाओ - डॉ. अरविंद देशारे
2. संशोधन पत्रिकाओ - डॉ. हवे.
3. सामाजिक शास्त्री संशोधन पत्रिकाओ - डॉ. अ.ड. शाक्त
4. संशोधन प्रकाशी - डॉ. विजय करारे
5. संशोधन डिजाइन - डॉ. निमा शाक्त
6. संशोधन अध्ययन - डॉ. निमा शाक्त

संशोधन पत्रिकाओ अने प्रविधिमध्ये - डॉ. हरीभार के सारे
Faculty of Rural Studies

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Title: Rural Marketing Management

OBJECTIVE:

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 Concept of rural marketing, need of rural marketing, rural market segmentation
Concept of rural consumer behavior, research in rural consumer behavior, method of conducting rural marketing research 20%

Product Pricing, pricing strategies 20%

UNIT-3 Distribution channels in rural marketing, advertising for rural marketing 20%

UNIT-4 Basic principles of processing and reservation, value addition and quality control, Grading and Packaging 20%

UNIT –5 Case study on 'multi-nationals in rural marketing'
Case study on 'NGOs in Rural Marketing'
Case study on "Social Marketing" 20%

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

## Faculty of Rural Studies

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### Title: N.G.O. MANAGEMENT

### Objectives:
1. To know about NGO and its evolution.
2. To understand functioning of NGO.
3. To know NGO movement in India and its achievements.

### Course: 100%

#### UNIT-1

- Introduction of NGOs, V.O., C.G.O., G.O., N.G.Os.,
- History of Voluntary Action in India
- People's Movement and Development Action.

#### UNIT-2

- Phases of NGO Movement,
- Types of NGOs
- Current Govt. Policy on NGOs involvement.

#### UNIT-3

Case Studies on NGOs Movement 20%
1. Chipko Movement.
3. KSSP Movement.
5. Hamara Ghar Hamara Raj.
6. Feminist Movement.
7. Tehari Dam Movement.
8. Sariska Bachao Movement.

**UNIT-4**
Management of N.G.O  
- Registration of NGO.
- FCRA.
- Income Tax Exemption 80 G.
- Financial Management.
- Annual Report Writing.
- FERRA.

**UNIT-5**
Project Management  
- Project Formulation
- Project Monitoring
- Training of NGO's Functions.
- Human Resource Management on NGO's
- Funding Agencies and their Format/Guidelines.

**Reference**
1. “Kudrati sampati ane vavyashapan” (Gujarati Edition) - Babubhai Avarani
2. “Gram Swavikash” (Gujarati Edition) - Babubhai Avarani
3. “Gram vikash karyakram ane yojnao” (Gujarati Edition)- R. B. Matariya.
### THE FOLLOWING ARE THE SUBJECTS PRESCRIBED FOR SEMESTER-IV

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**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:**

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

References :-

5. Shree shreemannarayangi – Relevance of Gandhian Economics.
7. भारतपुरुषिषकेले - विकसन एक्षेत्र - ड्र. भागवत जीशी - पुनरी अव नी, बोर्ड.
Faculty of Rural Studies

| Name of Course | Seme | Core/ Elective/ Foundation | Course Code | Course Title       | Credits | Inte | Exte | Pract | External | External Exam Time Duration |
|----------------|------|----------------------------|-------------|--------------------|---------|      |      |       | mark     | exam time duration          |
| M.R.S.         | IV   | Core - 4                   | 16070202040200 | 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.
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:
   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

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

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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: - 100%

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

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.)

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.

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 )

(2) “ Falpako ” (Gujrati edition- march 2013)

(3) “ Fal visheshank ” (Gujrati edition)

(4) “ Shakhbaji pako ni kheti” (Gujrati edition- Dec. 2013 )


(6) “ Shakhbaji ” (Gujrati edition may-2009)
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**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. Indicators Of Development factors of Economic Growth. 20 %

**Unit : 2**
Theories of Economic Development – Adaw smith, ricardian theooy, Schumpeterian theory. 20 %

**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 Growth on Economic Development. The Theory of Demographic Transition. 20 %

**Unit : 5**
Meaning and importance of human capital formation, problems of human capital Formation. Criterion of investment in human capital. Entrepreneurship in Economic Development. Role of the state in economic development. 20 %
References :-

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<td>30</td>
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**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
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<table>
<thead>
<tr>
<th>Name of Course</th>
<th>Seme- ter</th>
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**Title:** - Gandhian Approach to Rural Development

**नेतृत्व:-**

1. विद्यार्थियों गाँधीजीना आयोध्याना भाव विशे महत्त्वपूर्ण म्हणजेच.
2. विद्यार्थियों गांधीजीनु हे अयोध्यान समजणे.
3. विद्यार्थियों गांधीजीना आदेशांच्या अनुसार विषयांना विशेषत: समज डेकवणे.
4. विद्यार्थियों गांधीजीना डेकवणीना विषयांतील परिवर्तन घडणे.

**अभ्यासक्रम**

**एकम :** - 1 आयोध्याना गांधीजीना प्रयासांची.

1. आयोध्याना ज्ञानपूर्वक अभ्यास.
2. स्वयंत्रता डेटाबेस.
3. आयोध्याना संचालन.
4. साधनाची प्रणाली.

**एकम :** - 2 गांधीजीनु अयोध्यान.

1. पूर्ण रोजगारी.
2. महत्त्व प्रमुखता.
3. ज्ञान महत्त्व.

**एकम :** - 3 आयोध्याना गांधीजी निवारण.

1. वाणीप्रवाहां (इलेक्ट्रॉनिक्स) सिद्धांत.
2. पंतो प्रवेशो अभिव्यक्त.
3. संवेदनशीलता.
અંકમ - ૪ ગામીજીના આદર્શ અને વિવારોનું પ્રાર્થના.
(૧) સંદેશીની ભાવના.
(૨) પરદસ્તી કાપવાનો સલાહન.
(૩) આદી માટે પ્રચાર.
(૪) આદી અને પરામાંદી.

અંકમ - ૫ ગામીજીના ડણિવારી વિવારથી વિવારો.
(૧) ડણિવારી વિવારથી વિવારોનો વિકાસ.
(૨) સકા અવસથા.
(૩) પ્રથમ અવસથામાં તોલલંદાં કામ, વસ્તાણ, ઉત્પાદકશીલ, ભૌગોલક ડણિવારી, અરદ્રતા અને યારીના ગઠન,
(૪) બીજ અવસથામાં વિદ્યાપિકી, અસહજ અને શિક્ષા, સા વિષયની મુક્તયોજન, સ્વાયત્ત, શિક્ષણશાળા, ર્યાનાલગ કાળની સમય વચને.
(૫) શીખ અવસથામાં ઉદ્યોગ દ્વારા શિક્ષણ, બાળ સંપ્રદાય અને કામ, મન વગન કામ આદેશ, વિક્ષેત્ર વિવાર કામ તૈનીપણ ડણિવારી, સત્સમૂ ગુમંગ સંહિતકુ વચને.

સંક્ષેપ:-
૧. ગામીજીનું અદર્થન - વિબૃતિકાણ બાગનવાલ કોથરી
૨. ગામીજીઓ જનનાર્થન અને અદર્થ વિવાસ - રમેશબાઈ ભી. શાહ
૩. ગામીજીનું ચાર્ચાશન - મગનસાની જી. પટેલ
૪. સમાધાન દૃષ્ટિકોણમાં ગામીજીનું પ્રધાન - અઢ્ઢના ભી. શાહ
૫. કાયિંવારી ગાંધી - રામનારાયણ નમાગણા પાટલક
Faculty of Rural Studies

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<tr>
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**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 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:  
- Classification of Marketing:  
  i. Regulated Markets,
  ii. Cooperative Markets.

UNIT-3    Agri. Cooperatives
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
- 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

Books:

5. Rural Marketing Mgt.: Raja Gopal (Discovery Publications)
6. Marketing Mgt: Philip Kilter
7. Marketing Mgt: T.N.Chhabra
8. Principles of Marketing: Armstrong & Kotler
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:

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 ANALYSIS: 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
2. D.N.Dwivedi Managerial Economics
3. Salvatore Dominick Managerial Economics in global Economy
4. Adhikari Managerial Economics
5. Peterson and Levis Managerial Economics
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<th>Name of Course</th>
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**Title:** - Biotechnology

**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**  
10%

Bio – technology in Animal Husbandry  
Introduction  
Use in Animal Husbandry.

**Unit: - 4 Cloning:**  
20%

Methods of Conning  
Uses of Conning  
Conning Method of “Dolly” Sheep  
Production
Unit: - 5 Multiple ovulation and embryo transfer (MOET)  

Multiple ovulation and its Uses  
Advantage of M.D.E.T  
Transgenic animal and 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.
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:

Unit-1 Structure of insect, lifecycle of insect and its feeding habit. 100%

Unit-2 Characteristics for survival of insects on the earth. 10%

Unit-3 Methods of insect control:
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 40%

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; Heliotris, prodenia, Aphids, jassids, Thrips, Surface grass-hopper, Whitegrub, 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
5. Sampurna Pak Sanrakshan Part-I (Gujarati Edition)
   - Babubhai Avarani
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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%


20 %

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

20 %

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

20 %


20 %
Unit : 5  Contribution of Agri. Prosessing in Agri. Development, scope and problems of Agro – industry, remedial measured. 20 %

References :-

2. Sundhram I. S. Rural Development.
5. ड. भान्डर जोशी - भारतीय खुशिकेंद्र, विकास अने पर्यावरण - यूनि. अंश नी. बोर्ड.