II Year I Semester
DAIRY CATTLE NUTRITION

THEARY

(60 Lectures) **(4 Credits)**

Unit 1: Classification of Feeds and Fodders. Importance of proteins, fats and carbohydrates in livestock feeding. (15 Lectures)

Unit 2: Conservation of Fodder – Hay and Silage. (10 Lectures)

Unit 3: Feeding standards; Balanced rations for Dairy cattle; Feeding practices of Dairy cattle i) Soiling (ii) Ensiling, (iii) Pasturing, (iv Hay feeding, (v) General feeding practices with regard to management. (20 Lectures)

Unit 4: Types of Fodder varieties-legumes and non-legumes, seasonal and perennial fodder crops. Cultivation practices of fodder crops-Para grass, Hybrid Napier, Berseem, Cow pea, Jowar. (10 Lectures)

Unit 5: Utilization of agricultural and industrial by- products for livestock feeding. Enrichment of poor quality roughages – Urea treatment of paddy straw.(5 Lectures)

Practical: **(2 Credits)**

1. Identification of feeds and fodders.
2. Computation of rations.
3. Hay making.
4. Silage making.
5. Estimation of dry matter of feed or fodder

Reference books

1. Animal Nutrition in the Tropics - S K Ranjhan
2. Text book of Animal Husbandry - G C Benarjee
3. Principles and practices of Dairy Farm – Jagdish Prasad
4. Animal Nutrition and feeding practices – Dr Surendra K .Ranjhan
5. Animal Nutrition - K S Singh
6. Dairy Chemistry and Animal Nutrition – M M Roy

SRI VENKATESWARA UNIVERSITY

THREE YEAR DEGREE EXAMINATION

II B.Sc. –DAIRY SCIENCE PAPER III; SEMESTER- III

THEORY MODEL PAPER

PAPER-III DAIRY CATTLE NUTRITION

MAXIMUM MARKS: 75

TIME: 3 HOURS

Note to the examiner: To choose a minimum of one question from each Unit.

SECTION -A (SHORT ANSWERS)

Answer any five of the following **5×5=25 Marks**

1. What are proteins? Write the importance of proteins in livestock feeding?
2. What is a feed? How do you estimate dry matter of feed?
3. Write about computation of rations.
4. How do you treat paddy straw using urea?
5. What is pasturing? Write the advantages of pasturing
6. How do you differentiate hay and silage?
7. Give a brief note on different types of leguminous fodder used for dairy cattle.
8. Write about the cultivation practices of berseem.

SECTION –B (ESSAY QUESTIONS)

Note: **Answer all the following questions .All questions carry equal marks.**

5×10= 50 Marks

9. a) Write about the classification of feeds and fodders.

OR

b) Write the importance of proteins, fats and carbohydrates in livestock feeding

10. a) Write in detail about hay making

OR

b) Write in detail about conservation of silage

11. a) Write about the feeding standards and balanced rations for dairy cattle.

OR

b) Write in detail about the general feeding practices with regard to management.

12. a) Write the types of fodder varieties.

OR

b) Write in detail about the cultivation practices of Lucerne and Cowpea fodder crops .

13 a) Write a note on utilization of agricultural and industrial by-products for livestock feeding

OR

b) How do you enrich poor quality roughages?

INTERNAL EXAMINATION -25 Marks

20 marks for theory test and 5 marks for Viva Voss

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II B.Sc. –DAIRY SCIENCE PAPER III; SEMESTER- III

PRACTICAL MODEL PAPER

PAPER-III DAIRY CATTLE NUTRITION

TIME – 3 HOURS **MAX. MARKS: 50**

I - Answer all questions **3×10= 30 Marks**

1. Identify the given fodder and write the cultivation practices of the fodder and also write its nutritive value
2. Compute a ration for a cow weighing 400 kg and giving 10 lts of milk with 4.5% fat with locally available feeds and fodders.

3 Estimate the dry matter content in the given feed

II Identify the following feeds and fodders and write its nutritive value and its use 5×2= 10 Marks

1. Lucerne fodder
2. Maize fodder
3. Rice bran
4. Groundnut cake
5. Mineral bricks

III Record (Submission of record is compulsory) **5 Marks**

IV Viva Voss **5 Marks**