SRI VENKATESWARA UNIVERSITY
B.Sc. DEGREE COURSE IN DAIRY SCIENCE
III - SEMESTER
(Revised Syllabus under CBCS w.e.f. 2021-22)

COURSE-III: DAIRY CATTLE NUTRITION

THEORY

(3Credits)

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

Unit-2: Conservation of Fodder–Hay and Silage –Fodder security measures during summer and drought seasons. (10 Lectures)

Unit- 3: Feeding standards; Balanced rations for Dairy cattle; Feeding practices of Dairy cattlei) Soiling (ii) Ensiling, (iii) Pasturing, (iv Hay feeding, (v) General feeding practices with regard to management – Azolla feeding - Hydrophonic fodder production. (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 – fodder trees – Silvi pasture system – Horti pasture system. (10 Lectures)

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

Practical: **(2Credits)**

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. Text book of Animal Husbandry - G C Benarjee
2. Principles and practices of Dairy Farm –Jagdish Prasad
3. Animal Nutrition and feeding practices – Dr Surendra K .Ranjhan
4. Dairy Chemistry and Animal Nutrition – M M Roy

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Suggested outcomes for the course:

'Dairy Chemistry and Dairy Microbiology IV'

(5 units out of which 3 units are earmarked for dairy chemistry and 2 units for dairy microbiology with a total of 12 hours of class work for each of the unit is taken care in this course.) At the end of the course the student will demonstrate the following.

The students will be able to,

A. Remember and explain in a systematic way (Knowledge and comprehensions*)

The students are given introductory lessons on composition of milk drawn from different categories of cattle, buffalo, sheep, human etc, in comparison with colostrum. They are given inputs on constituents of milk, factors affecting composition and yield of milk, pysico chemical properties etc,

Milk is called an almost perfect food with wonderful nutritive value and each student is explained on its importance and made to understand on different standards with which quality of milk can be assessed.

Enough knowledge is created among the students on the necessity of cleaning and sanitizing the equipment and about maintaining hygiene in a dairy plant.

Every student is given an introduction on basic dairy microbiology with various types of dairy microbes, sources in contamination of milk, various types of microorganisms which are present in the milk, bacterial growth curve etc,

They are also made to understand on various milk bourne diseases including bacterial, viral and other diseases.

B. Understand Uses (Application **)

The students are given exposure on various chemical and bacteriological tests which help them understand the quality of milk and they are trained in such a way with which they will be helpful to dairy industry provided they are given the recruitment as laboratory assistance.

C. Critically explains, judges and solves (Analytical, Evaluative and Problem Solving***)

The students in the process are given exposure by taking them to various dairy plants located in and around the institution and they are assessed on their analytical, evaluative and problem solving skills.

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W.E.F. 2021-22

MODEL QUESTION PAPER

Time: 3 hours Marks: 75 marks

Note: This question paper contains two parts A and B.
Part A is compulsory which carries 25 marks. Answer any five of the following questions in Part A.
Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks.

PART – A

Answer any *Five* of the following question. (5X5=25M)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

PART – B

Answer All The Questions. Each question carries 10 marks (5X10= 50M)

9.	(A) OR (B)
10.	(A) OR (B)
11.	(A) OR (B)
12.	(A) OR (B)
13.	(A) OR (B)