

**B.Sc. Dairy Science (Vocational Subject)**

**II Year III Semester**

**Paper 3: Dairy Cattle Nutrition**

**Theory Syllabus (4 Credits)**

**60 Lectures**

- Unit 1:** Digestive system and role of nutrients in dairy cattle. Classification of Feeds and Fodder. Importance of proteins, fats and carbohydrates in livestock feeding. (15)
- Unit 2:** 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 and Jowar. (15)
- 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. (15)
- Unit 4:** Utilization of agricultural and industrial by-products for livestock feeding. Enrichment of poor quality roughages – Urea treatment of paddy straw. (15)

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**Practical Syllabus (1 Credit)**

1. Identification of feeds and fodder.
2. Computation of rations.
3. Preparation of urea enriched paddy straw.
4. Determination of dry matter and moisture content in feed or fodder.
5. Determination of crude protein content by Kjeldahls method.

**Reference Books:**

1. Text Book of Animal Husbandry – G.C. Banerjee.
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.