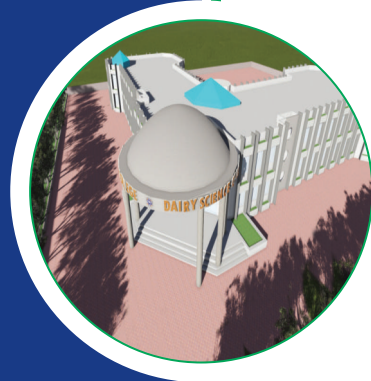


# Regulation for Affiliation of College of Dairy Science to Kamdhenu University, 2015



**KAMDHENU UNIVERSITY**  
Karmyogi Bhavan, 4th Floor,  
Block - 1, Wing B-1, Sector - 10A,  
Gandhinagar - 382010



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## Kamdhenu University

### Vision :

To be the National Leader in education and research in the fields of veterinary and allied sciences

### Mission :

- To excel in education and research and make advancement in all the fields of learning leading to welfare of all living beings.
- To shape the students into compassionate professionals.
- To promote productivity of animals, livestock and aquaculture through dissemination of knowledge empowering their owners.

### Motto :

‘सर्वभूतहिते रताः’ means striving for welfare of all living beings.

The KU is working for welfare of all living beings through its multifaceted academic, research and extension education programmes with focus on animals, milk and fisheries to uplift the standards of life of farmers and people at large.

### Logo :

Our logo covers water, earth and sky, all the three elements described as *Panchmahabhuta* depicted by symbols of a fish, a cow and a bird. The milk-can denotes dairy and mechanization of entire animal sector. The open book at the bottom emanates knowledge. The blue-cross symbolizes veterinary profession, while K and U represents Kamdhenu University. 'K' as an arrow is pointing to our goals and test tube as 'U' indicates scientific research. Two majestic Asiatic lions the pride of Gujarat, signifies courage.



# REGULATIONS FOR AFFILIATION OF COLLEGE OF DAIRY SCIENCE TO KAMDHENU UNIVERSITY, 2015



## **KAMDHENU UNIVERSITY**

Karmayogi Bhavan, 4<sup>th</sup> Floor,  
Block-1, Wing B-1, Sector- 10 A,  
GANDHINAGAR- 382010

**Regulations for Affiliation of College of Dairy Science to  
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**Vice- Chancellor**  
Kamdhenu University  
Karmayogi Bhavan, Sector-10 A  
Gandhinagar-382010

**Prof. M.C. Varshneya**

## **Foreword**

Dairy sector has socio-economically significant role in the development of rural and urban India. It is growing manifolds after successful implementation of operation flood, 1970. Similarly, change with liberalization of Indian economy has opened up many opportunities to the Dairy sector. Milk is the largest commodity of animal husbandry sector in India, both in terms of quantity and value. Milk production may touch 180 million tonne by 2030 with a per capita consumption of around 390 ml at an estimated population of 153 billion. Only, 35 % of total milk production, in India, is processed. Out of which 13 % is processed by large scale dairy plant/organized sector, while 22 % by unorganized sectors and remaining milk is consumed as liquid milk by household (CII, 2009; Singh and Datta, 2010).

Looking at this scenario, it appears that large quantity of milk in the market is consumed raw rather than processed for milk products. This is due to lack of processing plants and trained manpower. It is quoted by CII, 2009 that branding of milk products in Dairy sector may climb up to 30% by 2030. To pursue this demand oriented supply, India has to work hard in Dairy sector. It requires long term strategic planning and trained manpower.

At present 19 ICAR institution/universities are offering dairy education programmes such as B. Tech (Dairy Technology), IDD (Dairy Technology) etc. These institutions produce less than 300 dairy graduates every year. It is estimated that by the year of 2020 estimated demand of dairy graduates will be 25000. This suggests that current numbers of dairy colleges may not have capacity to supply trained manpower to fulfil future need. To accomplish the plausible demand, many cooperatives and other non government agencies (NGOs) should come forward to start colleges to produce trained manpower.

Albeit, it is well and good to get trained manpower from other agencies, at the same time it is also needed to have Regulations for quality assurance. As per Kamdhenu University Act, 2009, all the activities related with Veterinary, Dairy or Fisheries sectors in Gujarat State should be under Kamdhenu University only. Therefore University has prepared "Regulations" for Affiliation of College of Dairy Science to Kamdhenu University, 2015, aiming with supply of quality manpower from their affiliated colleges.

I hope these Regulations shall be a good guide to prepare a proposal for starting a Dairy Science College affiliated to Kamdhenu University.

**M. C. Varshneya**  
(Vice Chancellor)





**Dean, Faculty of Dairy Science**  
Kamdhenu University,  
Karmyogi Bhavan, Sector 10A,  
Gandhinagar.

**Dr. V.M.Ramani**

## **MESSAGE**

Dairy is the one of the oldest professions of mankind which came up as a complementary activity to the agriculture. Dairy sector has socio-economically significant role in the development of rural and urban India. It is growing manifolds after successful implementation of operation flood. Similarly, change with liberalization of Indian economy has opened up many opportunities to the Dairy sector. Indian Dairying has great potential to generate employment opportunities in rural as well as urban area and absorb surplus manpower if diverted to non-crop agriculture. Population growth, rapid urbanization, increased purchasing power, awareness towards health and changes in food habits have further fuelled the increase in consumption of milk and milk products.

The current number of dairy colleges may not have capacity to supply trained manpower to follow future need. By considering above mentioned situation as well as to strengthen the development of dairy industry there is a need to start a new College of Bachelor of Technology (Dairy Technology) for 12<sup>th</sup> standard students who may be exposed to education in Dairy Technology leading to four years degree. The Degree holders may provide their services in Dairy Technology sector in public or private organizations to build their career and future.

Hon. Vice Chancellor Prof. M.C.Varshneya has taken keen interest and provided encouragement for preparation of these Regulations. I am grateful to him for providing us the opportunity to perform this task with necessary guidance.

I take this opportunity to extend my gratitude and thanks to Shri V.P.Macwan, Registrar, Kamdhenu University, for his valuable and critical suggestions and keen interest during the course of development of these Regulations. Mr. M.N.Hingu, Academic In charge, College of Dairy Science, Amreli deserves appreciations for his sincere efforts.

**V.M.Ramani**



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## **Introduction**

Kamdhenu University has been established by Government of Gujarat under the Kamdhenu University Act, 2009, for education and development of Veterinary, Dairy and Fisheries and allied sciences in the State. As demand of trained manpower in the field of Dairy Technology has been increased, many non governmental agencies and co-operatives have come forward with the idea of opening institutions to generate workforce for the Dairy industry.

To regulate those institutions and maintain quality and standard of education in Dairy Technology, Kamdhenu University has decided to prescribe Regulations with following in view:

### **Vision**

- Provide excellent and skilled human recourse in Dairy industry equipped with technological innovative attitude and entrepreneurial orientation.

### **Mission**

- To regulate the standards and quality in Dairy education.
- To mould individuals into future quality human resource and entrepreneurs in the area of Dairy education.
- To review and check the quality of B.Tech (DT) programme run by the colleges under Kamdhenu University.

### **Objectives**

- To judge standards of instruction program and the teaching facilities of affiliated Dairy Technology Institution of Kamdhenu University.
- To regulate affiliated institution as per prescribed Rules and Regulations.
- To maintain quality of education of Dairy Science in the jurisdictions of Kamdhenu University.

**KAMDHENU UNIVERSITY  
GANDHINAGAR**

**REGULATIONS FOR AFFILIATION OF COLLEGE OF DAIRY SCIENCE TO  
KAMDHENU UNIVERSITY, 2015**

1. Short Title, Extent and Commencement:
  - (i) These Regulations shall be called "**Regulations for Affiliation of College of Dairy Science to Kamdhenu University, 2015**".
  - (ii) These shall extend to all institutions which intend to affiliate or are affiliated (annual provisional) for B-Tech (Dairy Technology) programme with this University located anywhere within the jurisdiction of the University i.e., the whole of the state of Gujarat.
  - (iii) These Regulations will be effective from the date of notification and shall also apply to the institution under the process of affiliation and those institution accorded affiliation provisionally to Kamdhenu University.
2. Definitions - In these Regulations, unless the context otherwise requires:
  - a) The words and expressions shall be the same as defined in the Kamdhenu University Act, 2009.
  - b) "Institute" or "Institution" means an institution or organisation registered under the appropriate laws of State i.e. Societies Registration Act, 1860, Bombay Public Trust Act, 1950 etc. or a Company incorporated under the Companies Act, 2013 (Act No. 18 of 2013) as amended from time to time or the State/Central Government institutions and/or a College which has been accorded provisional affiliation to impart education leading to graduation in Dairy Science.
  - c) "Affiliation" means affiliation (provisional or permanent) accorded to a College, whether private or public, by whatever name called, with respect to specific academic programmes;
  - d) "College" means for the purpose of these Regulations, an institution affiliated to the University and providing Bachelor of Technology in Dairy Technology.
  - e) "Principal" means head of an Affiliated College or Institution of Dairy Science.

- f) “Teacher” means for the purpose of these Regulations, a person, known by any rank, appointed/hired by the Affiliated Institution for the purpose of imparting instruction;

3. Applicability:

These regulations shall apply to all those institutes as defined in regulation no. 2(b).

4. General Regulations and Procedure for Affiliation:

- (i) The institute desirous to start a College of Dairy Science shall apply to the Registrar in the prescribed Application Form (Appendix-I), which shall be made available at a charge of Rs. 10,000/ (Rupees Ten thousand only) in the form of Demand Draft drawn in favour of University account to be intimated by University before 31<sup>st</sup> March of the year preceding the year from which affiliation is intended to take effect. Late applications shall not be considered.
- (ii) The applicant shall have proven financial capabilities of annual turnover of minimum Rs. Two crore as evident from last three year's balance sheet certified by Chartered Accountant.
- (iii) The applicant shall have its own buildings and land with undisputed ownership and possession of the buildings and/or land proposed for starting a College of Dairy Science.
- (iv) The applicants shall have corpus funds of minimum Rs. One crore and shall have minimum 35 acres of contiguous land or as prescribed by the Indian Council of Agricultural Research (ICAR) under its clear title exclusively for the College of Dairy Science. Documentary evidences and affidavits shall be produced in this regards at the time of application. The affiliation shall not be granted for rented facilities.
- (v) The Institute shall have infrastructure and other facilities for the purpose of teaching and practicals as per the Annexure I.
- (vi) The application received by the Registrar shall be scrutinised by the Scrutiny Committee consisting of following members.
  - 1. Dean of Dairy Faculty of Kamdhenu University - Chairman
  - 2. Two experts to be nominated by Vice Chancellor

3. One representative of Director of Animal Husbandry not below the rank of Joint Director
4. Registrar – Member Secretary

The above said committee shall strictly scrutinise the application in the light of above said clauses of these Regulations and recommend for further necessary actions.

- (vii) Having found satisfactory report of the scrutiny committee, the Registrar on the recommendation of the Scrutiny Committee, shall inform the institute to pay non refundable processing fees of Rs. 1,50,000/- (Rupees One Lac Fifty Thousand only) in the form of Demand Draft drawn in favour of University account intimated by University.
- (viii) On receipt of the processing fees, the University shall constitute an inspection committee consisting of following members which shall visit the institution and will present its inspection report to the University.
  1. Dean of Dairy Faculty of Kamdhenu University - Chairman
  2. Two experts to be nominated by Vice Chancellor
  3. One representative of Director of Animal Husbandry not below the rank of Deputy Director
  4. Executive Engineer of the University or his representative not below the rank of Deputy Engineer
  5. Deputy Registrar - Secretary
- (ix) The inspection committee appointed shall visit the institute and inspect all the documents, premises, financial capabilities, available infrastructures, academic and technical capabilities and other facilities of the institution. The institution shall, besides producing evidences of adequate financial capabilities as provided in the sub rule (iv) shall furnish a bank guarantee of an amount equivalent to six months' salary of teaching and non-teaching staff or a minimum of Rs. One crore only, whichever is higher, in favour of the University before provisional affiliation is granted.
- (x) The inspection committee shall submit its report to the Registrar within two months from the date of receipt of non refundable fees along with the requirements mentioned in sub rule (ix). The report shall be placed in the

Academic Council in the next meeting for necessary recommendation to the Board of Management of the University.

- (xi) On approval of the Board of Management, the trustee/society shall obtain "No Objection Certificate" from State Government, which shall be obtained separately by the trust/institution.
- (xii) The Board of Management shall accord provisional affiliation for one year or reject the application with reasons in writing which shall be conveyed to the applicant by the Registrar. On approval of the provisional affiliation by the Board, the Institute shall have to remit a non refundable one time affiliation fees of Rs. 50 lacs (Rupees Fifty lacs only) in the form of Demand Draft in favour of University account intimated by University before the beginning of common admission process by the University, failing which the institute will not be permitted to start the academic programme for that year.
- (xiii) The renewal of affiliation in subsequent years shall be accorded by the Board of Management on recommendation of the Academic Council and inspection committee as prescribed in sub rule (ix) on receipt of application for renewal from the institute. The inspection committee for renewal of affiliation shall visit the institution before 30<sup>th</sup> April of that year on receipt of non refundable inspection fee of Rs. 1,50,000/- (Rupees One Lakh Fifty thousand only) by 31<sup>st</sup> March every year. The fees for visit of inspection committee shall have to be remitted for each such visit of inspection committee. The amount of fees may be revised by University without notice.
- (xiv) Any institution whose application for affiliation has been rejected, may apply afresh as per the procedure laid down here in these Regulations.

5. Admission, Fee Structure and Examinations:

- (i) The admission procedure for degree course shall be as provided in the Regulations for the Award of Bachelor of Technology in Dairy Technology (B. Tech) of the Kamdhenu University.
- (ii) The Institute shall compulsorily participate in centralized admission system and in no case admit students directly on its own.
- (iii) The intake capacity for of an institute affiliated course shall be initially 40 students which may be increased up to maximum of 60 students per year on

recommendations of the inspection committee and on approval by the Academic Council.

- (iv) Management quota seats will be as per regulations for the award of Bachelor of Technology in Dairy Technology of Kamdhenu University.
- (v) The institution may issue advertisements for promotional purpose but in no case shall issue any advertisement for admission pertaining to concerned academic year.
- (vi) The Institute may charge fees to the students as prescribed by the Kamdhenu University from time to time except management quota seats.
- (vii) The entire process of conduct of final/end term examinations, evaluation and related issues for the degree course shall be under the direct control and supervision of the Kamdhenu University.

6. Award of the Degree:

After successful completion of the course, the degree certificates (provisional or otherwise) shall be issued to the students by the Kamdhenu University only.

7. Faculty and Support Staff:

The strength of the teaching as well as supporting staff shall be such as provided in Annexure-I.

8. Recruitment of Staff:

- (i) The qualification of teaching and other technical staff shall be recruited as per the recruitment regulations prescribed by the University.
- (ii) For recruitment of the Principal of the Institution, selection committee which shall include representative of the University nominated by the Vice-Chancellor.
- (iii) In case of recruitment of a member of the teaching staff of the Institution, a representative of the University nominated by the Vice-Chancellor and the Principal of that Institution shall be members.

9. The institute may provide residential accommodation to the Principal and other members of the teaching staff in or near the Institution.

10. University shall not be responsible for any kind of delay in granting affiliation.

11. The provisionally affiliated institute which completes five years shall then apply for permanent affiliation to the University.
12. Regulations for Permanent Affiliation:
  - a. Eligibility Criteria for granting Permanent affiliation:
    - (i) The Institution shall have completed at least five years of satisfactory performance after getting first provisional affiliation and attained the academic and administrative standards as prescribed by the University from time to time.
    - (ii) The Institution must have completed all necessary infrastructure prescribed under the regulations as stipulated from time to time.
    - (iii) All the teaching and non-teaching staff is appointed on regular/permanent basis on scale of pay as per ICAR/Government.
    - (iv) The affiliated Institution shall furnish such reports, returns and other information as the Board, after consulting the Academic Council, may require enabling it to judge the efficiency of the College or the institution.
  - b. Procedure for Granting Permanent Affiliation
    - (i) Institution which wishes to get permanent affiliation shall apply to the University any time after completing five years of provisional affiliation in the prescribed proforma.
    - (ii) The procedure for according permanent affiliation, the proforma for application and inspection fees shall be the same as for granting provisional affiliation given in the regulations.
    - (iii) If the University decides not to recommend for granting permanent affiliation to the Institution for reasons, to be recorded in writing, of its failure to meet the conditions / requirements for getting such affiliation, the Institution may apply again as and when it fulfils the conditions / requirements subsequently, but not earlier than six months from the date of rejection of its earlier application.
13. The institute which is accorded provisional affiliation is authorized to mention the status in the form of “Provisionally Affiliated to Kamdhenu University” on their signboards, letterheads, properties and other such documents.
14. Till a College/Institute is permanently affiliated to the University as provided in these regulations, the College/Institute shall not be authorized to declare its status anywhere as “Affiliated to Kamdhenu University”.

15. The affiliation granted under these regulations is non-transferable.
16. Every affiliated/recognized institution shall comply with the provisions of the Kamdhenu University Act, 2009 (specifically Section 46 to 52 Ch. VIII), and its Statutes, Regulations, minimum standards and norms as amended from time to time. If any affiliated/recognized institution contravenes then,
  - (i) The rights conferred on such college or institution by the affiliation or recognition shall stand withdrawn from the date of such contravention and such college or institution shall cease to be an affiliated College or recognised institution.
  - (ii) The rights conferred on an institution by recognition may be withdrawn or suspended for any period if the institution fails/has failed to observe any of the conditions of its recognition or the institution has conducted in a manner which is prejudicial to the interest of education.
17. The decision of the University for granting or not granting provisional or permanent affiliation to any institution shall be final.
18. The standards of the institute granted permanent affiliation shall be reviewed every five year by Kamdhenu University by the procedures and norms of the inspection prescribed hereinabove.

## Annexure-I

### Minimum Standards and Norms for Affiliation of College of Dairy Science to Kamdhenu University

#### **1. Divisions/Section: Five Departments and One Section**

<b>Sr No</b>	<b>Departments</b>
1	Dairy Technology
2	Dairy Engineering
3	Dairy Chemistry
4	Dairy Microbiology
5	Dairy Trade and Dairy Business Management
	<b>Sections</b>
1	Pilot Dairy Unit cum Business Process Development Centre

#### **2. Medium of Instruction:** English

#### **3. Minimum Intake**

<b>Degree</b>	<b>Course</b>	<b>Intake Capacity</b>
B. Tech.	Dairy Technology	40

#### **4. Land Requirement**

Main building and hostels: 10 Acres

Field area: 25 Acres

Play grounds: From common facility of the institute

Total: 35 Acres

#### **5. Manpower Requirements of Principal's Office**

<b>Designation</b>	<b>No. of position</b>
Principal	1
<b>A. Establishment</b>	
PA to Dean	1
Administrative Officer	1

Assistant Comptroller/Assistant Accounts Officer	1
Superintendent	1
Steno/Computer operator	1
Assistant	1
Operator (Audio Visual)	1
Attendants/Messengers	1
Clerk (LDC)	1
Electrician	1
Store Keeper	1
Driver	1
<b>B. Dairy Plant and Business Incubation Centre and Laboratories</b>	
Manager, Pilot plant/ Business Incubation Centre	1
Laboratory Technician for the college	6
Plant Supervisors/Technical Assistants (Dairy Processing-10, Refrigeration-2, Electrical-2)	14
Plant Operators (Processing-6, Boiler-2 Refrigeration-2,)	10
Mechanical Draftsman	1
Jr.Mechanic/wireman	1
Fitter	1
Steno/PA	1
Assistant	1
Computer operator	2
LDC	1
Attendants	2
<b>C. Library</b>	
Assistant Librarian	1
Library Assistants	1

Clerks	1
Shelf Assistants	1
<b>D. Students Welfare (To be provided by the University as Central Facility)</b>	
<b>E. Hostel Staff for Two Hostels</b>	
Warden	1+1
Clerks	1
Attendants	2
Security, Sanitation and Landscaping	To be outsourced

## 6. Faculty Requirements for the Departments

Division/Section	Faculty			Total
	Professor**	Associate Professor	Assistant Professor	
Dairy Technology	1	1	4	6
Dairy Engineering	1	1	4	6
Dairy Chemistry	1	1	2	4
Dairy Microbiology	1	1	2	4
Dairy Business Management	0	1	2	3
<b>Total</b>	<b>4</b>	<b>5</b>	<b>14</b>	<b>23</b>

\* One each in Dairy Economics and Dairy Extension; Supporting subjects will be taught by other faculty in the College.

\*\* If Professor is not available, Associate Professor will be recruited.

## 7. Administrative and Supporting Staff for Divisions/Section

Sr. No	Division /Section	Steno/PA/ Computer Operator (9300-34800 + GP 4200)	Assistant (5200-20200 +GP 2800)	Attendant/ Messenger (5200-20200 +GP 2800)	Clerk (9300-34800 +GP 4200)	Laboratory Assistant/Attendant (5200-20200+ GP 2800)
1	Dairy Technology	2	1*	1	1	1

2	Dairy Engineering	2	-	1	1	1
3	Dairy Chemistry	2	1**	1	1	1
4	Dairy Microbiology	2	-	1	1	1
5	Dairy Business Management	2	-	1	1	1
	Total	10	2	5	5	5

\* For Dairy Technology \*\* For Dairy Chemistry, Microbiology & Business Management

**8. Central/Division/Section Laboratories (as per requirements of the teaching and research work of the college)**

Division /Section	Laboratory
Dairy Technology	Product Development Laboratory Product Characterization and Rheology Packaging Laboratory Sensory Evaluation Laboratory Central Instruments Laboratory Food Technology Laboratory
Dairy Engineering	Bioprocess Engineering Laboratory Fluid Mechanics Laboratory Heat Transfer Laboratory Refrigeration and Air Conditioning Food Engineering Laboratory Thermodynamics Laboratory Electrical Laboratory Instrumentation and Control Laboratory Dairy Engineering Workshop
Dairy Chemistry	Dairy Food Analysis Laboratory
Dairy Microbiology	Dairy Food Quality and Safety Laboratory
Dairy Business Management	Computer Laboratory Audio-Visual Laboratory Language Laboratory

## 9. Floor Space Requirements

### Central Facilities

Sr. No.	Details	Number of Rooms	Dimensions
1	Dean office	1	30
2	PA room	1	25
3	Committee room with video conferencing facility	1	80
4	Administrative officer room	1	80
6	Examination hall	1	60
7	Evaluation room	1	60
8	Faculty room	1	60
9	Placement cell	1	50
10	Smart Lecture rooms	5	80 each
11	Auditorium (Optional)	1	100
12	Library/Book bank	1	100
13	Multipurpose room	1	60
14	Laboratories	6	80 each
15	Hostels	2	4000 each
16	Generator Shed	1	60
17	Toxic chemical storage and waste unit	1	50
18	Canteen	1	1000
19	Toilets	-	Adequate
20	Parking space	As per requirement	Adequate
21	Vehicles:		
	Office car	1	Adequate
	Staff car/Jeep	1	

	Bus	1	
	Pick-up van	As per need	

#### 10. Division/Section

Sr. No.	Details	No. of rooms	Dimensions (Sq ft)
1	Office of the Head of Division	5 One for each division	30
2	Administrative staff	05 One for every Division	60
3	Faculty room	26	20
5	Committee room cum library	05 (one for every Division)	30
6	Smart lecture cum seminar room	05 (one for every Division)	Seating capacity - 50 each
<b>Laboratories (no. of laboratories as per ICAR)</b>			
7	Dairy Technology	5	80
8	Dairy Engineering	9	80
9	Dairy Chemistry	4	80
10	Dairy Microbiology	3	80
11	Dairy Business Management	4	80

#### 11: Library:

Due provision is made or shall be made for a library. The library facility with reading room will be mandatory and should be a part of the main College building with computers, internet and reprographic services.

The library must be possessing required multiple copies of the text books covering all the subjects of the course syllabus besides reference books, journals, periodicals, newspapers etc. The minimum number of books in the library should be 1500 (excluding literature and general purpose books). An indicative list of the books is given in Annexure 1-B.

#### 12. Dairy Plant and Business Incubation Centre

Detail	Space requirements
Raw Milk receiving Dock, Milk storage tank room, Milk Processing Hall, Cheese Room, Milk Condensing & Drying Plant room, Cheese Drying & Curing room, Milk Cold Store, Ice Cream Hardening Room, Dispatch Dock, Milk Bottling / Pouch Filling Room, Food processing section, Boiler House, Refrigeration & Ice Bank, System room, Store room – Products,	As per need

Store room – chemicals & accessories, Sales Counter, Office of the Head of the Department, Offices for the Teaching Staff - Assistant professor, Associate Professor, Offices for the Technical Staff – Boiler Attendant, Refrigeration Attendant, Fitter, Office for the Ministerial Staff & Driver, Wash rooms– Staff & Students (both for Male & Female)	
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## LIST OF EQUIPMENTS

### 1. Equipments required for Laboratories

Sr. No.	Name	Number
1	UV-Vis Spectrophotometer	02
2	Analytical balances	04
3	Electronic balances	04
4	Muffle furnace	02
5	Automatic titrator	01
6	Soxhlet instrument	01
7	Gerber centrifuge	02
8	pH meter	04
9	Autoclave	02
10	Laminar flow/Bio safety cabinet	02
11	BOD Incubator	02
12	Simple microscope	10
13	Simple oil immersion microscope	01
14	Hot air oven	01
15	Hot water bath	04
16	Serological bath	04
17	Centrifuge	02
18	Low temperature centrifuge	01
19	Pipette washer	02
20	Rotary shaker	01
21	Gas supply and burners	01
22	Standard assembly for titrimetric analysis with indicator	All items: 02 each

### 2. Packaging laboratory

Sr. No.	Name	Number
1	Weighing balance (Accuracy 0.001 g)	02
2	Micrometre	04
3	Mullen Bursting strength tester	01
4	Mechanical drop tester	01
5	Compression strength tester	01
6	Smoothness or porosity tester	01

7	Cobb tester	01
8	Elmendorf tear tester	01
9	Water absorption tester	01
10	Head space analyser	01
11	Universal testing machine	01
<b>Barrier testing instruments</b>		
1	Oxygen	01
2	Carbon dioxide	01
3	Water vapour transmission tester	01

### 3. Pilot Plant cum Business Incubation Centre for Dairy and Food Processing

Sr. No.	Name	Number
1	Milk reception section	01
2	Liquid milk processing unit	01
3	Cream processing , butter and ghee Section	01
4	Powder reconstitution & milk poly pack section	01

### 4. The total production line to be developed for the Dairy Unit (10,000 LPD) is illustrated in the table below

Sr. No.	Product to be manufactured	Quantity of Milk
1	Liquid milk (Different qualities) of milk such as full cream, Standardized milk, Toned milk, double toned, milk as per the requirement by PDP	2,500 litres
2	Curd/Lassi/Chhach/Yoghurt	1000 litres
3	Paneer/Cheese/Shrikhand/Chhana (Production and Channa based sweets packaging)	1000 litres
4	Ice-cream (1000 litres mix)	1000 litres mix
5	By-Products: casein, caseinates, whey products, etc.	500 litres (only for practical purpose)
6	Heat desiccated products (Khoa, Khoa based sweets like Gulabjamun, Peda, Phirni, Rabri, Kurchan, Kheer, etc.)	500 litres (For practical purpose & also for marketing as per demand)
7	Fat rich products Butter, Ghee, etc.	Regular production from cream obtained

		from market milk industry
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### 5. Major Common Pilot Plant Equipment:

Sr. No	Item	Numbers	Capacity
1	Milk Weighing Scale	1	0-100 kg
2	Bulk Cooling Tank	1	1000 L
3	Can Washer	1	5 cans/hr
4	HTST Plate Heat Exchanger	1	500 L/hr
5	Batch Pasteurizer	1	500 L
6	Homogenizer	1	500 L/hr
7	Milk Storage Tank	2	1000 L each
8	Milk Bottling Plant	1	10 bottles/min
9	Butter Churn	1	100 kg
10	Ghee Boiling Vat	1	100 kg
11	Ice cream Freezer – Batch	1	20 kg/batch
12	Cheese Vat	3	200 L each
13	Cheese Cutting Frame	3	1 X 3 ft size
14	Cheese Press	1	6 block
15	Milk Condensing Unit	1	40 kg water evaporation/hr
16	Spray Drying Unit	1	5-10 kg water evaporation/hr
17	Refrigeration Plant	1	10 Ton
18	Portable Weighing Scale	2	5 kg
19	Curd Mill	1	-
20	Cheese Hoop	6	20 kg size
21	Milk Cans	50	40 kg each
22	Auto Clave	1	-

23	Ice Water Plant	1	5 Ton
24	Cheese Block Cutter	1	-
25	Sieve for Shrikhand	2	-
26	Planetary Mixer	1	10 kg
27	Hand Bottle Filler	1	-
28	Can Scrubber Tank	1	-
29	Pouch Filling Machine	1	100 pouch/hr
30	Cream Separator	1	500 L/hr
31	Butter Trolley	1	50 kg
32	Wet Casein Grinder	1	5 kg/
33	Casein Shredder	1	5 kg
34	Casein Dryer	1	5 kg/batch
35	Bottle Sterilizer	1	40 bottles/batch
36	Khoa Kettle	1	10 kg/batch
37	Colloidal Mill	1	1 kg/min
38	Crown Capping Machine	1	Manual
39	Sugar Grinder	1	5 kg
40	Tin Seamer	1	Manual
41	UF Cum RO Unit	1	50 kg/hr
42	Crates For Milk Bottles	100	10 kg each
43	Deep Freezer	4	-
44	Gerber Centrifuge	2	24 tubes
45	BOD Incubator	2	-
46	Hot Air Oven	2	-
47	Hot Plate	1	-
48	Magnetic Stirrer	1	-
49	Colony Counter	1	-

50	Weight Box	1 set	100 g
51	Paraffin Bath	1	50 kg
52	Vacuum Packaging Machine	1	5 kg/batch
53	Milk Analyser	1	-
54	Ice Cream Freezer - Continuous Type	1	50 L/hr
55	Cooling Unit For Cheese Curing Room	1	2 tonnes
56	Candy Making Machine	1	50 candy/batch
57	Candy Moulds	10	24 x 100 ml
58	Vacuum Tray Dryer	1	-
59	Extruder	1	-
60	Ice Cream Cup Filling Machine	1	100 cups/hr
61	UHT Milk Sterilization Unit with Aseptic Packaging	1	100 L/hr
62	Tray sealing machine	1	-
63	Colloid Mill	1	-
64	Hammer mill	1	-
65	Planetary mixer	1	-
66	Pin mill	1	-
67	Homogenizer	1	-
68	Steam Jacketed Kettle	3	-
69	Refrigeration System For Ice Cream Hardening Room	1	2 tonnes
70	Processed Cheese Kettle	1	5 kg
71	Steam Boiler	2	500-1000 kg
72	Diesel power generator	1	125 KWA
73	Effluent Treatment Plant	1	-

#### 6. Equipment for Dairy Engineering Division:

Sr. No.	Name	Number
1	Orifice and Mouthpiece apparatus	2

2	Pipe friction apparatus	1
3	Minor head loss apparatus	1
4	Flow through channel apparatus	1
5	Computerized centrifugal pump test rig	1
6	Rotameter	2
7	Water flow meters	2
8	Reynolds apparatus	1
9	Bernoulli's apparatus	1
10	Various types of pipe fittings and valves	02 set
11	Self priming pump	2
12	Monoblock pump set	2
13	Submersible pump	1
14	Powder conductivity meter	1
15	Computerized counter and parallel flow apparatus	1
16	Plate Heat Exchanger	1
17	Steam Jacketed kettle	1
18	Stefan Boltzmann Apparatus	1
19	Jacketed vats	2
20	Heat Transfer through composite wall	1
21	Heat Transfer through Natural Convention	1
22	Critical Heat Flux Apparatus	1
23	Heat Transfer through lagged pipe	1
24	Digital temperature indicators with probes	05 set
25	Multi Channel temperature indicator	2
26	Solar water heating system	1
27	Computerized refrigeration tutor	1
28	Computerized air conditioning tutor	1
29	Water cooler	1
30	Window AC	2
31	Split AC	2
32	Refrigerator	1
33	Models of sealed and open type compressor	01 set
34	Refrigeration plant controls such as thermostat, pressure switches, solenoid valves, expansion valves	01 set
35	Dessert cooler	2
36	Dehumidifier	1

37	Food Processor	1
38	Texture Analyzer	1
39	Laboratory scale freeze dryer	1
40	Try dryer	1
41	Texturometer	1
42	Juice extractors	1
43	Extruders	1
44	Sulfuring chamber	1
45	Blanching equipment	1
46	Clinching equipments	1
47	Jacketed kettle	1
48	Bomb calorimeter	1
49	Flue gas analyzer	1
50	Bucket calorimeter	1
51	Baby boiler	1
52	Models of boiler mountings and accessories.	01 set
53	IC Engine test rig	1
54	Steam flow meter	2
55	Water flow meter	2
56	Models of two stroke and four stroke engine	01 each
57	Different types of steam traps	02 set
58	Pipes and pipe fittings	As per the requirements
59	Oil and gas burners	01 each
60	Water softening plant	1
61	Boiler feed water pump	1
62	Digital clip-on-meters	2
63	Digital Energy analyzer	1
64	Power measuring instruments such as volt meter, ampere meter, energy meter, meger	05 set
65	Inverter	1
66	Induction Motors with starters	2
67	Variable Frequency Drive	2
68	Single phase Transformer, 2 kVA	2
69	Digital three phase Energy meter	2
70	Different types of starters such as direct on line starter, star delta starter, Auto-transformer starter etc.	02 set

71	Experimental set up for experiment in parallel & series connection, stair case wiring, tube light wiring, motor connection, speed measurement, demonstration of winding etc with necessary power, voltage, and current measuring devices.	02 set each
72	Hand tachometer	2
73	Non contact type tachometer	2
74	Soft starter	2
75	Air anemometer	1
76	Magnetic flow meter	2
77	Digital pocket type thermometers with different types of probes	5
78	Multi channel data logger	1
79	Various tutors/transducers such as Strain gauge, pressure, LVDT, Inductive, Photo cell, piezometer, etc.	01 set
80	Water Level controller	1
81	Pneumatic controller	1
82	PID controller temperature controller system	1
83	Digital Tachometer	1
84	Lux meter	1
85	Solar lighting system	2
86	Lathe Machine	1
87	CNC lathe	1
88	Grinding machine	1
89	Power saw	1
90	Drilling machine	1
91	Pipe bending machine	1
92	Electric welding machine	1
93	Portable welding machine	1
94	Gas welding set	1
95	Shear cutting machine	1
96	Threading machine	1
97	Universal wood working machine	1
98	Bench vice	20
99	Portable grinding machine	2
100	Shaping machine	1

**7. Dairy Trade and Business Management Division:**

<b>Sr. No.</b>	<b>Name</b>	<b>Number</b>
1	Desk top computers with LAN facility and Internet connection	20
2	Photocopier	3
3	Laser Printer	6
4	Colour Laser Printer	1
5	Softwares: SPSS/Metlab/Design expert	01 each with multiuse license
6	Indian patent database	1

## LIST OF BOOKS

### Indicative list of reference books for library:

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2.	Microbiology Handbook Dairy Products	Fernandes, Rhea
3.	Basic Microbiology An illustrated Laboratory Manual	Khunita, B. K.
4.	Bergey's manual of Systematic Bacteriology Vol.3 : The Firmicutes	Boone, David R.
5.	Elements of Foods and Nutrition	Dowd, Mary T.
6.	Instant Bio Chemistry	Nagini, S.
7.	Bio Chemistry : International Student Version	Voet, Donald
8.	Principles of Food Chemistry	Deman, John M.
9.	Food Chemistry	Belitz, H. D.
10.	Food The Chemistry of Its Components	Covltate, T. P.
11.	Food Chemistry	Fennema, Owen R.
12.	Essentials of Cheese making	Upadhyay, K.G.
13.	Cost Accounting	Jawahar Lal
14.	Dairy Plant Management	Makwana, Ashish Keshavlal
15.	A Textbook of Organic Chemistry	Bansal, R.K.
16.	Milk Testing : A Laboratory Control of Milk	Davis, J.G.
17.	Analysis of Milk and Its Products : A Lab Manual	Milk Industry Foundation
18.	Laboratory Manual of Dairy Analysis	Richmond, Droop H.
19.	Principles of Physical Chemistry	Puri, B.R. Late
20.	Fundamentals of Dairy Chemistry	Wong, N.P. / Jenness, R. / Keeney, M. / Marth, H.
21.	Advanced Dairy Chemistry Vol.1 : Proteins Part - A	ed. Fox, P.F.
22.	Advanced Dairy Chemistry Vol.1 : Proteins Part - B	ed. Fox, P.F.
23.	Chemistry & Testing of Dairy Products	Atherton, Henry V.
24.	Dairy Processing Improving Quality	ed. Smit, Gerrit
25.	Bio Chemistry of Milk Products	ed. Andrews, A.T.
26.	Introduction to the Chemical Analysis of Foods	Nielsen, Suzanne S.
27.	Encyclopaedia of Dairy Chemistry	Singh, Kalyan
28.	Workshop Technology Part – 1	Chapman, W.A.J.
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30.	Workshop Technology Part – 3	Chapman, W.A.J.
31.	Fluid Mechanics : Fundamentals and Applications (in SI units)	Cengel, Yunus A. / Cimbala, John M.
32.	Fluid Mechanics	Streeter, Victor L. / Wylie, Benjamin / Bedford, Keith W.
33.	A Textbook of Fluid Mechanics and Hydraulic Machines	Bansal, R.K.
34.	Heat and Mass Transfer	Rajput, R.K.
35.	Heat and Mass Transfer : Principles and Applications	Dutta, Binay K.
36.	Thermodynamics : An Engineering Approach	Cengel, Yunus A. / Boles, Michael A.
37.	Chemical Engineering Thermodynamics	Rao, Y.V.C.
38.	An Introduction to Thermodynamics	Rao, Y.V.C.
39.	Refrigeration and Air Conditioning	Prasad, Manohar
40.	A Textbook of Refrigeration and Air Conditioning	Khurmi, R.S. / Gupta, J.K.
41.	A Textbook of Electrical Technology Vol. 1 : Basic Electrical Engineering	Theraja, B.L. / Theraja, A.K.
42.	A Textbook of Electrical Technology Vol. 2 : AC and DC Machines	Theraja, B.L. / Theraja, A.K.
43.	A Textbook of Electrical Technology Vol. 3 : Transmission, Distribution and Utilization	Theraja, B.L. / Theraja, A.K.
44.	A Textbook of Electrical Technology Vol. 4 : Electronic Devices and Circuits	Theraja, B.L. / Theraja, A.K.
45.	Machine Drawing : In First-Angle Projection Method	Bhatt, N.D. / Panchal, V.M.
46.	Process Control Instrumentation Technology	Johnson, Curtis D.
47.	Strength of Materials : Mechanics of Solids	Khurmi, R.S.
48.	A Textbook of Machine Design	Khurmi, R.S. / Gupta, J.K.
49.	Automatic Control for Food Processing Systems	Moreira, Rosana G.
50.	Food Process Engineering : Theory and Laboratory Experiments	Marwaha, Kavita
51.	Experiments in Food Process Engineering	Pandey, H. / Sharma, H.K. / Chauhan, R.C. / Sarkar, B.C. / Bera, M.B.
52.	Food Processing Operations and Scale-Up	Valentas, Kenneth J. / Levine, Leon / Clark, J. Peter
53.	Milk and Milk Processing	Herrington, B.L.
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55.	Milk and Milk Products : Technology, Chemistry and Microbiology	Varnam, Alan H. / Sutherland Jane P.
56.	Flavor of Dairy Products	ed. Cadwallader, Keith R. / Drake, MaryAnne / McGorin, Robert J.

57.	Cheese and Butter	Cheke, V. / Sheppard,A.
58.	Milk Products	Clunie Harvey, W.M. / Hill Harry
59.	The Technology of Food Preservation	Desrosier, Norman W. / Desrosier, James N.
60.	Managerial Economics	Thomas, Christopher / Maurice, S Charles / Sarkar, Sumit
61.	Dairy Technologists' Handbook	Ramasamy, D. / Shibu, A.V. / Gopi, H.
62.	Financial Management : Text, Problems and Cases	Khan, M Y / Jain, P K
63.	Projects : Planning, Analysis, Selection, Financing, Implementation, and Review	Chandra, Prasanna
64.	Strategic Brand Management : Building, Measuring, and Managing Brand Equity	Keller, Kevin Lane / Parameswaran, M.G. / Jacob Isaac
65.	Statics for Business and Economics	Hooda, R P
66.	Handbook of Milk Microbiology	Srivastava, Manish L.
67.	Applied Dairy and Food Microbiology	ed. Singh, Rameshwar / Tomar, S.K. / Goel, Gunjan
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69.	Emerging Food borne Pathogens	ed. Motarjemi, Yasmine and Adams, Martin
70.	Fermentation Technology	Singh, Tanuja / Purohit, S.S.
71.	Fermented Fruits and Vegetables : A Global Perspective	Battcock, Mike / Azam-Ali, Sue
72.	Food Analysis : Typical Methods and the Interpretation of Results	Woodman, A.G.
73.	Food Quality Management	Kalia, Manoranjan
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76.	Handbook of Microbiological Media	Atlas, Ronald M.
77.	Handbook of Quality Control of Dairy and Meat Products	Ranjan, Sudhi / Jadhav, Vijay
78.	International Handbook of Food borne Pathogens	ed. Miliotis, Marianne D. / Bier, Jeffrey W.
79.	Practical Methods In Food Analysis	Berwal, J.S. / Grewal, R.B. / Kapoor, C.M. / Garg, M.K.
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82.	Preservation of Fruits and Vegetables	Lal, Girdhari, Siddappa, G.S., Tandon, G.L.
83.	Dairy Farming	Singh, Avtar, Joshi, B.K., Kamboj, M.L., Prasad, Shiv

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154.	Dairy Hand Book	Laval,Alfa
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174.	Milk and Milk Products	Mahindru,S.N.

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182.	Operations Research	Shah,Nita H., Gor, Ravi M., Soni, Hardik
183.	Statistics for Management	Levin,Richard I., Rubin,David S.
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185.	Bergey's Manual of Systematic Bacteriology, vol.2 : The Proteobacteria, Part A : Introductory Essays	editors Brenner,Don J. , Krieg,Noel R. , Staley James T. , Garrity George M.
186.	Bergey's Manual of Systematic Bacteriology, vol.2 : The Proteobacteria, Part B : The Gammaproteobacteria	editors Brenner,Don J. , Krieg,Noel R. , Staley James T. , Garrity George M.
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188.	Alcamo's Fundamentals of Microbiology	Pommerville,Jeffrey C.
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197.	Toned Milk the WHY and HOW of it	Dairy Society International
198.	Applied Instrumentation	Andrew, William G.
199.	The Development and Manufacture of Strilized Milk Conentrate	Seehafer, M.

200.	Principles of Fermentation Technology	Stanbury, Peter F.
201.	Trade Support Services : ISO 9000 Quality Management Systems	Shah, D.L.
202.	Biobased Packaging Materials for the Food Industry : Status and Perspectives	Weber, Claus J
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211.	Cream Processing Manual	Rothwell, J.
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213.	Effect of Heating on Food Stuffs	Priestley, R.J.
214.	Food Analysis Principles & Techniques Volume - 1 : Physical Characteristics	Gruewedel, D.W.
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219.	Principles of Food Science Part - 2 Physical Principles of Food Preservation	Fennema, Owen R.
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223.	Food Packaging and Preservation	Mathlouthi, M.
224.	Plastics in Flexible Packaging	Athalye, A. S.
225.	Migration from Food Contact Materials	Katan, L.L.
226.	Active Packaging for Food Applications	Brody, Aaron
227.	Plastic Packaging Materials for Food	Piringer, O.G.
228.	Financial Management	Prasanna, Chandra

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230.	A Text Book of Animal Husbandry	Banerjee, G.C.
231.	Financial Management	Pandey, I.M.
232.	Elementary Economic Theory	Dewett, K.K.
233.	Marketing Management	Kotler, Philip
234.	A Text book of Refrigeration and Air Conditioning	Khurmi, R.S.
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236.	Essentials of Physical Chemistry	Bahl, Arun
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250.	Analog Filter Design	Valkenburg, M.
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255.	Biotech's Dictionary of Food Technology	Arora, Dinesh
256.	Dairy Technology : Principles of Milk Properties and Processes	Walstra, P.
257.	Techniques of Food Analysis	Winton, Andrew L.

258.	Biotech's Dictionary of Dairy Science	Arora, Dinesh
259.	Analysis of Milk and Its Products : A Lab Manual	Milk Industry Foundation
260.	Functional Dairy Foods Concepts and Applications	Tomar, Sudhir K.
261.	Handbook of Farm, Dairy, and Food Machinery	Kutz, Myer
262.	Fundamentals of Food Process Engineering	Toledo, Romeo T.
263.	Handbook of Food Processing Equipment	Saravacos, George D.
264.	Analysis of Milk and Its Products : A Lab Manual	Milk Industry Foundation
265.	Laboratory Manual of Dairy Analysis	Richmond, Droop H.
266.	Drying and Dehydration of Foods	Loesecke, H.W.V.
267.	Food Analysis	Khetarpaul, Neelam
268.	Food Irradiation	Udipi, Shobha A.
269.	Food Packaging	Khetarpaul, Neelam
270.	A Handbook on Food Packaging	John, Jacob
271.	Natural Food Colorants Science and Technology	Lauro, Gabriel J.
272.	Oils, Fats and Fatty Foods : Their Practical Examination	Bolton, Richards R. and Drummond, J. C.
273.	Guide for Agricultural Competitive Examinations : An Enhanced Competition Explorer	Sharma, R. K.
274.	Quality Milk Production and Processing Technology	Thompson, D. K.
275.	Objective Agriculture Science : Question Bank as per New Syllabus	Chavan, V. D.
276.	Food Borne Pathogens : An illustrated Text	Varnam, Alan H.
277.	Assignment and Thesis Writing	Anderson, Jonathan
278.	Dairying in India	Gupta, H. C.
279.	Statistical Quality Control for the Food Industry	Hubbard, Merton R.
280.	Principles of Dairy Management	Rao, Venkateshwara P.
281.	Management Information Systems : Managing the Digital Firm	Laudon, Kenneth C.
282.	Organizational Behaviour	Robbins, Stephen P.

(Appendix – I)

Application form for Affiliation of Diploma in Dairy Technology to  
Kamdhen University, Gandhinagar

1. Details of Application Fee (attach Demand Draft)			
(a)	Application fees	Rs. 10,000/ (Rupees Ten Thousand only)	
(b)	Application Date		
(c)	D.D./Cheque No	Date	
(d)	Name of Bank	Please issue Demand Draft in favour of "Kamdhen University, Gandhinagar" payable at State Bank of India, Civil Supply Branch, Gandhinagar	
2. Details of Institution (attach relevant attested documents)			
(a)	Name of Institute (Society/Trust/ Institution/Company)		
(b)	Memorandum of Association and bye laws (please attach copy)		
(c)	Details of Registration	Registered under:	
		Registration No:	
		Date of Registration:	
		Registration Certificate (attach copy): Yes/No	
(d)	Postal Address of Institute (Society/Trust/ Institution/Company)		
(e)	Details of Managing Director/Managing Trustee		
	Name		
	Address		
	Email	Contact No	
(f)	Details of Board of Directors/Trustees (use separate sheet if needed)		
	Sr. no	Name	Contact Details
	1		
	2		
	3		
	4		

(g)	Details of the other activities i.e. educational/ training programmes being run by the Institution.(please attach separate sheet, if required)		
	1		
	2		
	3		
	4		
3. Details of Financial Resources (attach documentary evidences, affidavits and other relevant proofs of each)			
(a)	Annual turn over		
	Present sources of income		
	Future sources of income		
(b)	PAN No.		
(c)	TAN No.		
(d)	Details of last three years Income and Tax paid (attach IT returns)		
	Sr. No	Year	Total Taxable Income
	1		
	2		
	3		
(e)	Corpus Fund		
	1	FDRJ Bank Deposits	Rs.
	2	Other Deposits	Rs.
	3	Other instruments of investment	Rs.
	4	Liquid fund (attached copy of Bank Passbook)	Rs.
	5	Statement of accounts	
4. Proposed Course for which affiliation is sought (Please attach the permission of the government to start the proposed course.)  <input type="checkbox"/> _____ Bachelor of Dairy Technology (B.Tech. D.T.)			
5. Full Postal Address of the proposed College			
	Pin	Contact No.	

6. Land and Buildings (attach copy of ownership rights of land and Title clear certificate of property and plan of buildings)					
A.	a.	Name of Property			
	b.	Survey Number			
	c.	Total Area		Hectare: _____ Acre: _____ jn sq.m: _____	
	d.	Status of ownership			
B.	Buildings of Proposed Polytechnic (please attach Building Use permission)				
	Main Polytechnic Building				
	Principal's chamber No. <input type="text"/> Size <input type="text"/> (sq.m)		Conference/Meeting Hall No. <input type="text"/> Size <input type="text"/> (sq.m)		Administrative office No. <input type="text"/> Size <input type="text"/> (sq.m)
	Teaching staff room No. <input type="text"/> Size <input type="text"/> (sq.m)		Non-teaching staff room No. <input type="text"/> Size <input type="text"/> (sq.m)		Storeroom No. <input type="text"/> Size <input type="text"/> (sq.m)
	Lecture balls/Class rooms No. <input type="text"/> Size <input type="text"/> (sq.m)		Multipurpose ball No. <input type="text"/> Size <input type="text"/> (sq.m)		Library No. <input type="text"/> Size <input type="text"/> (sq.m)
	Laboratories No. <input type="text"/> Size <input type="text"/> (sq.m)		Computer room No. <input type="text"/> Size <input type="text"/> (sq.m)		
	Amenities				
	Toilets No. <input type="text"/> Size <input type="text"/> (sq.m)		Restroom No. <input type="text"/> Size <input type="text"/> (sq.m)		Water room No. <input type="text"/> Size <input type="text"/> (sq.m)
	C.	Hostels			
a.	Category	No of rooms	No of Students per room	Total capacity	Address
	Boys hostel				
	Girls hostel				
b.	Hostel furniture		attach list		
	Location		<input type="checkbox"/> within campus <input type="checkbox"/> outside campus		
	Ownership		<input type="checkbox"/> owned <input type="checkbox"/> rented <input type="checkbox"/> leased		
D.	Students amenities				
a.	Sport complex				
	i.	Play ground area _____ sq.m			

	ii.	Outdoor sports _____						
	iii.	Indoor sports facility: _____, _____, _____ _____						
	iv.	Sports equipments: attach list						
	b.	Student bus: <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, Owned <input type="checkbox"/> or Rented <input type="checkbox"/>						
7. Management of the Polytechnic								
A.	Details about the Principal and teaching staff if appointed (attach documentary proofs of qualifications and experience for each staff; use extra sheet for detail information)							
	Sr. No.	Name	Designations	Qualifications	Experience			Pay scale
					Y	M	D	
B.	Non-Teaching staff (use extra sheet if needed)							
	Sr. No.	Name	Designations	Qualification	Experience			Pay scale
Y					M	D		

8 Laboratory Facility (Attach list of facilities for each laboratory)			
	Please attach list of all items given below.		
	Furniture ( ) Yes ( ) No	Equipments ( ) Yes ( ) No	Chemicals or glassware ( ) Yes ( ) No
	Computers or printers ( ) Yes ( ) No	Net Connectivity ( ) Yes ( ) No	
9. Library facilities (attach list of facilities for library)			
	No. of Text books _____  No. of other Books/Reading Material _____	No. of Reference books _____  No. of CDs/DVDs _____	No. of Journal _____  No. of Computers & Printers _____
10. Students Training Dairy (give details plan of the buildings on a separate sheet also.)			
A	Buildings		
	Office cum Laboratory No. _____ Size _____ (Sq.m)	Raw Milk Receiving Dock No. _____ Size _____ (Sq.m)	Milk Storage tank room No. _____ Size _____ (Sq.m)
	Milk Processing Hall No. _____ Size _____ (Sq.m)	Cheese Room No. _____ Size _____ (Sq.m)	Milk condensing & Drying Plant No. _____ Size _____ (Sq.m)
	Chhese Drying & Curing No. _____ Size _____ (Sq.m)	Milk Cold Storage No. _____ Size _____ (Sq.m)	Ice cream hardening No. _____ Size _____ (Sq.m)
	Dispatch Dock No. _____ Size _____ (Sq.m)	Milk Bottling /Pouch Filling No. _____ Size _____ (Sq.m)	Food Processing No. _____ Size _____ (Sq.m)
	Boiler House No. _____ Size _____ (Sq.m)	Refrigeration & Ice Bank No. _____ Size _____ (Sq.m)	System Room No. _____ Size _____ (Sq.m)
	Store Rooms No. _____ Size _____ (Sq.m)	Sales Counter No. _____ Size _____ (Sq.m)	

List of documents enclosed

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

## DECLARATION

On behalf of the — — — — — (name of society / trust/ organization), I \_\_\_\_\_ Son/daughter of \_\_\_\_\_ r/o \_\_\_\_\_ do hereby declare that the particulars furnished above in the application for grant of affiliation of \_\_\_\_\_ (name of the College of Dairy Science) to Kamdhenu University, are correct to the best of my knowledge and belief, and if any of the particulars furnished are found to be false or misleading I am liable to penalty and/or legal action by the Kamdhenu University. I also further declare that I shall abide by the conditions, rules and regulations of the University as amended from time to time for granting affiliation to establish and run this College of Dairy Science and maintain the academic standards as per the directives of the University.

Place.....

Date: .....

Signature of the applicant  
(Authorized Signatory with official seal)

Place.....

Date: .....

Managing Director/Chairman Trustee  
(Authorized Signatory with official seal)

Note:

- The application, incomplete in any respect, will not be considered.
- The application not accompanied by the declaration and the undertaking as per format given on the following pages will not be considered.
- All correspondence shall be addressed to the Registrar, Kamdhenu University, Block-, B-1 wing, 4<sup>th</sup> floor, Karmayogi Bhavan, Sector-10-A, Gandhinagar-382010, Gujarat.

## UNDERTAKING

(To be submitted along with the application form on a non-judicial stamp paper of Rs. 1000/- duly attested by first class executive magistrate)

I \_\_\_\_\_, S/o \_\_\_\_\_

resident \_\_\_\_\_ on behalf of  
(Institution name) registered office at  
\_\_\_\_\_

-----solemnly declare that:

1. I have applied for affiliation of institute (named below) for award of the **Bachelor of Dairy Technology** to the Kamdhenu University, Gandhinagar on the prescribed form along with prescribed fee.
2. Detailed infrastructure facilities etc. are given in Annexure 1 entitled on its page- **Minimum Standards and Norms for Affiliation of College of Dairy Science to Kamdhenu University** consisting of total.....pages, duly filled in on behalf of me.
3. On behalf of the Applicant Body, of which I am authorized representative, I have full knowledge of the norms of the Kamdhenu University, Gandhinagar.
4. On behalf of the Applicant Body, of which I am authorized representative, I am fully aware that the diploma programme, to which the Applicant Body, of which I am authorized representative, has applied, is governed by the norms of the Kamdhenu University, Gandhinagar.
5. On behalf of the Applicant Body, of which I am authorized representative, I declare that it shall be binding on the Applicant Body to fully, in letter and spirit, to follow the norms of affiliation to the Kamdhenu University, Gandhinagar, as laid down at present as well as in future.
6. On behalf of the Applicant Body, of which I am authorized representative, I declare that it shall be binding on the Applicant Body to fully, in letter and spirit, to abide by the guidelines/advises/directives etc. provided by the Kamdhenu University including their authorities.

7. On behalf of the Applicant Body, I also assure that the directions in regard to Academic Programmes including examinations would be followed *in toto* as per the rules and regulations of Kamdhenu University amended from time to time.
8. On behalf of the Applicant Body, I will abide by all the Rules and Regulations of affiliation and instructions given by the University from time to time.
9. Details of management committee members along with verified address (by revenue officer) and their photographs are provided in Annexure 3.
10. I hereby declare that the said Polytechnic/Institute (which has applied for affiliation) shall abide all the rules and regulations, orders, instruction etc. issued by the University and also framed by in the future, failing which the University reserves the right to withdraw the affiliation.
11. The above information in Para 1 to 10 is correct to the best of my knowledge and nothing, herein, has been concealed.

Annexure enclosed with it:

- a) Annexure 1: Prescribed application form duly filled and signed  
YES/NO
- b) Annexure 2: Detailed information's as required in the application form  
YES/NO
- c) Annexure 3: The details of management committee members along with verified address (by revenue office) and their photographs.  
YES/NO

Place.....

Date: .....

Signature of the applicant  
(Authorized Signatory with official seal)

Witness 1:

Name:

Witness 2:

Name:

Father's name:

Full Address:

Father's name:

Full Address:







## યુનિવર્સિટી ગીત

હો સર્વભૂતહિતે રતાઃ, જીવસૃષ્ટિ સકલ સમાહિતા,  
હો કામધેનુ હી કલ્પદ્રુમ, કલ્યાણ શ્રેય સમર્પિતા. ॥૧॥

સબ ગાય કે ગોપાલ હો, પશુપતિ નહીં પશુગ્વાલ હો,  
પાલન સંવર્ધન હો પ્રેમસે, વૃદ્ધિ બલ આરોગ્યતા. ॥૨॥

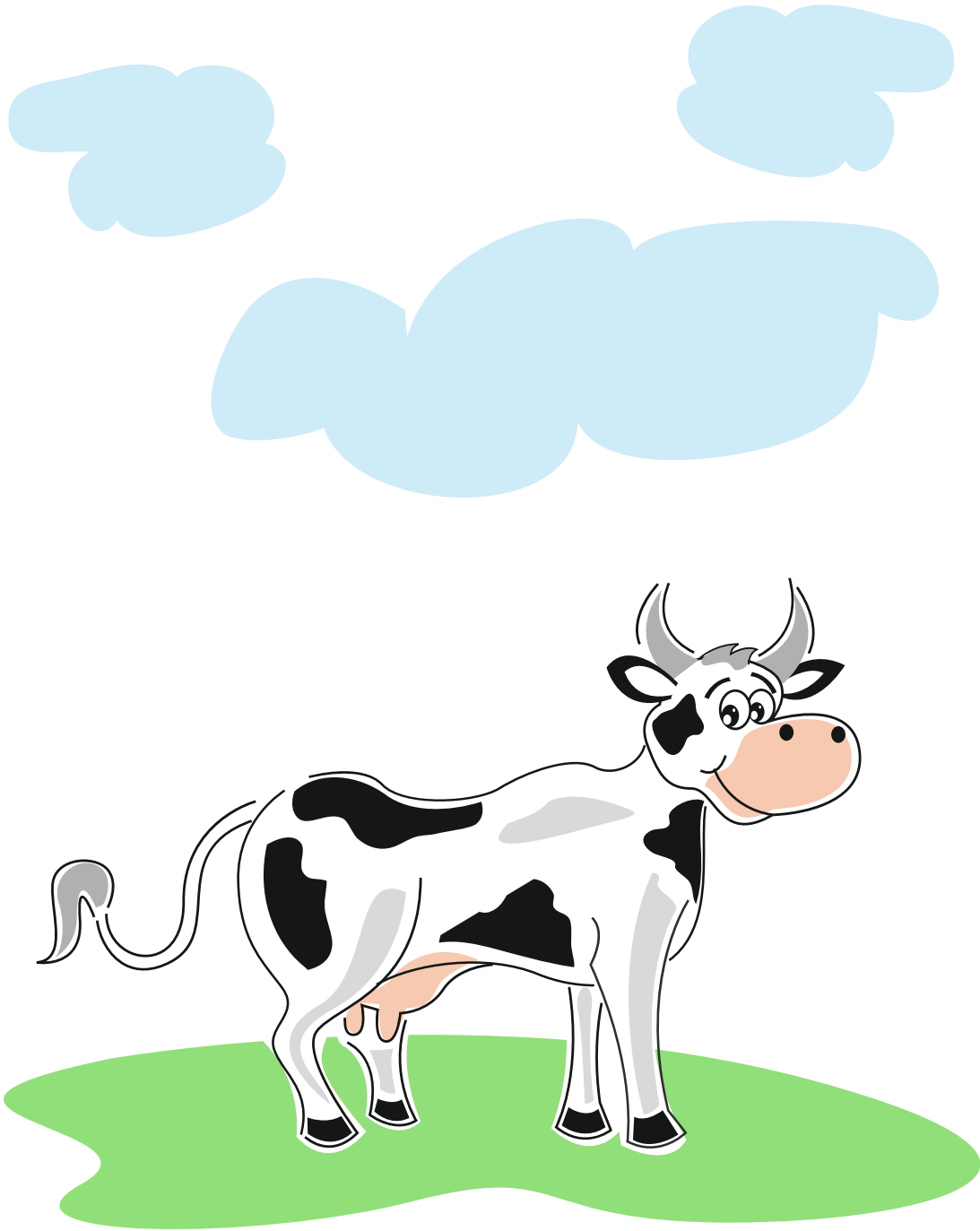
દહીં, દૂધ, મખ્ખન કી નદી, હો વિશ્વમેં અપની સદી,  
કપિલા સમી ગીર ગાય હે, આંચલભરી અપરાજિતા. ॥૩॥

સાગર ભરા ભંડાર હે, જો રાષ્ટ્ર કા આધાર હે,  
મછુઆર, મોતી, મત્સ્ય સબ, સૌભાગ્ય કી હૈ સંહિતા. ॥૪॥

સબ કર્મ મેં કૌશલ્ય હો, આલસ્ય કા ના શલ્ય હો,  
ના મનોદીર્ઘલ્ય હો, ઓર જ્ઞાન કી હો સુલભતા. ॥૫॥



“સર્વભૂતહિતે રતાઃ”



**KAMDHENU UNIVERSITY**  
Karmyogi Bhavan, 4th Floor,  
Block - 1, Wing B-1, Sector - 10A,  
Gandhinagar - 382010