



**SHIVNERI MAHAVIDYALAYA SHIRUR ANANTPAL DIST
LATUR**

CERTIFICATE COURSE IN DAIRY TECHNOLOGY

ORGANISED BY

DEPARTMENT OF DAIRY SCIENCE

ACADEMIC YEAR -: 2023-2024

Disclaimer

The syllabus for the B.Sc. DairyScience Certificate Course in Dairy Technolog follows guidelines from the college development committee at Shivneri mahavidyalaya Shirur anantpal Dist-Latur 413544. It has been meticulously crafted by the department of DairyScience and approved by Principal, Shivneri Mahavidyalaya. Participants are urged to use this syllabus as a comprehensive guide for Dairy Technology studies.

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DEPARTMENT OF DAIRY SCIENCE

CERTIFICATE COURSE IN DAIRY TECHNOLOGY

SYLLABUS

Period – 30

Mark – 40

Objectives-:

The objectives of the programme are to:

- develop technician level human resource for dairy industry;
- upgrade the technical proficiency of existing workers and lower level / technicians working in the dairy and allied sectors;
- develop skilled young entrepreneurs for self employment in milk processing and associated activities; and
- impart knowledge and technical proficiency in:
 - Clean milk production and handling
 - Processing of milk
 - Manufacture of western and indigenous dairy products
 - Testing and quality control of milk and milk products
 - Marketing and economical aspects -Managing small and medium enterprises

Outcome-:

- Various preservation techniques relevant in the dairy industry.
- Food additives and their significance in maintaining the nutritional quality of milk and other dairy products.
- New processing and preservation technologies in the dairy industry and the challenges faced.

UNIT – I

Period-09

1)Reception of milk: Unloading, Grading, Sampling, Testing, Weighing and Recording.

2)Storage of milk. Straining, filtration and clarification of milk.

3)Definition and objectives of Pasteurization of milk, Objections to Pasteurization and Principles of heat exchange.

UNIT – II

Period-12

1)Market milk: Toned milk, Double toned milk, Reconstituted milk, Standardized milk and Full cream milk –

2)Standards and methods of manufacture.

3)Cream: Types of cream, composition, methods of cream separation, gravity and centrifugal methods, types of cream separators; factors affecting fat losses in skim milk and fat percentage in cream.

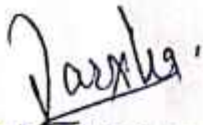
UNIT – III

Period-09

- 1) Methods of Pasteurization: LTLT, HTST and Uperization.
- 2) Sterilization of milk. Factors influencing homogenization, effect of homogenization on milk.
- 3) Standardization of milk.

REFERENCE BOOKS

- 6) Dairy processing handbook – Gosta Bylund.
- 7) Outlines of Dairy Technology – Sukumar De.
- 8) Milk products preparation and quality control – C.P. Ananthakrishnan.
- 9) The technology of milk processing – C.P. Ananthakrishnan.
- 10) Modern Dairy products – Lincoln M. Lampert.



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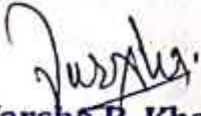
DEPARTMENT OF DAIRY SCIENCE

CERTIFICATE COURSE IN DAIRY TECHNOLOGY

Student Enrollment List

Academic Year 2023-2024

Sr. No.	Name Of Student	Class
1	Bhojne Omkar Balaji	B Sc T Y
2	Jadhav Vaishnavi Shyam	B Sc T Y
3	Shaikh Shahbaj Rauf	B Sc T Y
4	Patel Abdul Noor	B Sc T Y
5	Kale Abhimanyu Ramjivan	B Sc T Y
6	Handrale Pooja Vynkat	B Sc T Y



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DEPARTMENT OF DAIRY SCIENCE

CERTIFICATE COURSE IN DAIRY TECHNOLOGY

Time Table	
Academic Year 2022-2023	
Day/Time	03:50 To 04:40 PM
Tuesday	Certificate course In Dairy Technology



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DEPARTMENT OF DAIRY SCIENCE


CERTIFICATE COURSE IN DAIRY TECHNOLOGY

Student Attendance

Academic Year 2023-2024

Month – July 23 August 23 Sept23 Oct 23

Sr No	Name Of Student	11	18	25	Aug.	01	08	22	29	Sept.	05	12	26	Oct.	03	10	17	31
1	Bhojne Omkar Balaji	P	P	A		P	P	P	A		P	P	P		P	P	P	A
2	Jadhav Vaishnavi Shyam	P	P	P		A	P	P	P		P	P	P		P	P	P	P
3	Shaikh Shahbaj Rauf	P	P	P		P	P	P	P		P	P	P		P	A	P	P
4	Patel Abdul Noor	A	P	P		P	P	P	P		P	A	P		P	P	P	P
5	Kale Abhimanyu Ramjivan	P	P	P		P	P	P	P		P	P	P		P	P	P	P
6	Handrale Pooja Vynkat	P	A	P		P	P	P	P		P	P	P		P	P	P	A


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CERTIFICATE COURSE IN DAIRY TECHNOLOGY

QUESTION PAPER

Academic Year 2022-2023

Marks-30

Time-01 Hrs

Seat No. Of Candidates:-

1. Soft fats in milk fat are:-

Lauric & Stearic Capric & Lauric Oleic & Butyric Oleic & Lauric

2. Principal protein in milk is:-

Albumin Lactalbumin Casein Lactoglobulin

3. Percentage of mineral matter in milk is about :-

1% 0.7% 1.5% 0.05%

4. Whey is the by-product in the manufacture of:-

Skimmed milk Butter Cheese Yogurt

5. Example of soft cheese is:-

Cheddar Swiss Brick Cottage

6. Tests for proper pasteurization are based on the activity of which enzyme?

Lactase Diastase Phosphatase Catalase

7. Starch is split by which enzyme?

Lactase Diastase Phosphatase Catalase

8. What is freezing point of milk?

0 °C -0.55 °C -1 °C -1.55 °C

9. What is the average boiling point of milk?

100-101 °C 105-110 °C 115-117 °C 102-105 °C

10. What is the average specific gravity of normal whole milk at 16 °C?

0.903 1.032 1.582 2.032

11. Which is the pre-dominating organism in dirty utensils of milk?

Lactobacillus bulgaricus Propionibacterium Streptococcus lactis All of the above

12. Energy value of a food is measured in terms of?

Carbohydrates Fats Proteins Calories

13. Legal butter must contain at least what percentage of fat?

70% 80% 90% 95%

14. The high nutritive value of cheese is due to:-

High mineral contents High protein contents Taste & flavor All of the above

15. Milk fat differs from other common fats in having a larger percentage of:-

Free Fatty Acids Saturated Fatty Acids Volatile Fatty Acids None of the above

16. Chlorine compounds have widespread acceptance in the dairy industry due to?

Non-toxicity High sanitizing efficiency High corrosiveness All of the above

17. At what concentration chlorine sanitizing solutions are usually used in the dairy industry?

50-100 ppm 100-200 ppm 200-500 ppm 500-800 ppm

18. The process of raising or lowering the percent of fat in milk or cream to a desired standard is called?

Enrichment Fortification Standardization None of the above

19. A product consisting of a mixture of milk and cream which contains not less than 10.5% milk fat is called?

Concentrated Milk Low Fat Milk Half-and-Half Eggnog

20. Butter milk is a fluid product resulting from the manufacture of?

Cheese Yogurt Ice cream Butter

21. What is the application of any effective method or substance to a clean surface for destruction of pathogen is called?

Pasteurization High Temperature Treatment Sanitization Cleaning

22. In what form Formaldehyde- preservatives used in milk exists?

Gas Liquid Solid All of the above

23. Mammary gland's complete unit of milk synthesis is called

lumen micelles alveolus secretory cells

24. Fatty acids synthesized in mammary gland are

Higher chain fatty acids Unsaturated fatty acids Lower chain fatty acids Medium and lower chain fatty acids

25. Most variable constituent of milk is

Proteins Fat Lactose Minerals

26. Which of the following has largest particle size in milk?

Lactose Casein Fat globule Micelles

27. Lactose has water solubility of

100% 50% 18% 25%

28. Which enzyme is tested for cream pasteurization?

Plasmin Phosphatase Catalase Peroxidase

29. Which one is used as an emulsifying agent in process cheese blend?

Paprika Pectin Glycerides Whey Powder

30. Percentage of water in buffalo milk is:-

65-67 % 70-75 % 80-85 % 87-90 %

31. Semisolid ice cream is placed in a hardening room at a temperature of about?

-15 °C -20 °C -34 °C -44 °C

32. The "eyes" in swiss cheese are formed by the growth of:-

Leuconostoc Propionibacterium Streptococcus Lactobacillus

33. Yogurt contains mixed lactic acid culture containing:-

- Lactobacillus bulgaricus and Streptococcus thermophilus Lactobacillus bulgaricus and Propionibacterium Lactobacillus bulgaricus and Leuconostoc
 None of the above

34. The melting point of milk fat varies normally between :-

- 32-36 °C 40-45 °C 20-25 °C 26-30 °C

35. The specific gravity of milk fat at 21°C is?

- 0.70 0.82 0.93 0.98

36. Which one of the following is not fermented beverages?

- Kefir Leban Buttermilk Kaumiss

37. How many indigenous enzymes have been reported in bovine milk?

- 30 60 50 40

38. Destruction of which enzyme is used as an index of super-HTST pasteurization?

- Catalase Lipase Lactoperoxidase All of the above

39. Rennet belongs to:-

- Lipases Catalase Proteinases Phosphatases

40. The iodine number measures the amount of:-

- Free Fatty Acids Saturated Fatty Acids Chain Length of Fatty Acids Unsaturated Glycerides

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Result

Academic Year 2023-2024

Sr. No.	Name Of Student	Marks
1	Bhojne Omkar Balaji	36
2	Jadhav Vaishnavi Shyam	35
3	Shaikh Shahbaj Rauf	37
4	Patel Abdul Noor	38
5	Kale Abhimanyu Ramjivan	36
6	Handrale Pooja Vynkat	37



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**SHIVNERI MAHAVIDYALAYA, SHIRUR
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CERTIFICATE

This is to certify that, Mr./Miss. BHOJNE OMKAR BALAJI having successfully completed the Certificate Course in DAIRY TECHNOLOGY conducted by Department of DAIRY SCIENCE during the academic year 2023-2024

Hence Certified

Date: 06 Nov.2023

Mrs. Kharobe V. B.

Varsha B. Kharobe
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This is to certify that, Mr./Miss. JADHAV VAISHNAVI SHYAM having successfully completed the Certificate Course in DAIRY TECHNOLOGY conducted by Department of DAIRY SCIENCE during the academic year 2023-2024

Hence Certified-----

.Date: 06 Nov.2023

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This is to certify that, Mr./Miss. SHAIKH SHAHBAJ RAUF having successfully completed the Certificate Course in DAIRY TECHNOLOGY conducted by Department of DAIRY SCIENCE during the academic year 2023-2024

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This is to certify that, Mr./Miss. PATEL ABDUL NOOR having successfully completed
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Date: 06 Nov. 2023


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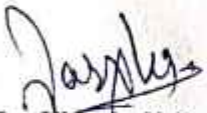
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This is to certify that, Mr./Miss. HANDRALE POOJA VYNKAT having successfully completed the Certificate Course in DAIRY TECHNOLOGY conducted by Department of DAIRY SCIENCE during the academic year 2023-2024

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