**25900034** **A**

**Reg.No : .....**

**Name : .....**

# MAHATMA GANDHI UNIVERSITY, KOTTAYAM

## MGU-UGP (HONOURS) REGULAR EXAMINATION MARCH 2025

## SECOND SEMESTER

## Multi-Disciplinary Courses (MDC) - MG2MDCCHE100 - DAIRY CHEMISTRY

(2024 ADMISSION ONWARDS)

**Duration: 0.75 Hours** **Maximum Marks: 35**

***Remember(K), Understand(U), Apply(A), Analyse(An), Evaluate(E), Create(C), Skill(S), Interest(I) and Appreciation(Ap)***

Students should attempt at least one question from each course outcome to enhance their overall outcome attainability.

### Part A

Multiple choice questions

Answer all questions

Each question carries **1** marks

1. Find out the correct expression for specific gravity of milk [K] / [CO1]

   a). Density of milk / Density of water at 0 degree Celsius

   b). Density of milk / Density of water at 25 degree Celsius

   c). Density of milk / Density of water at the same temperature

   d). Density of milk / Density of water at 100 degree celsius

2. Choose the factors that leads to microbial spoilage of milk [U] / [CO1]

   a). Contamination from the milk gland

   b). Unhygienic milker and vessels

   c). Both contamination from milk gland & Unhygienic milker and vessels

d). None of the options are correct

3. What is the fat percentage in whole milk? [K] / [CO1]

a). 0.50% b). 1.50% c). 3.50% d). 5.00%

4. Find out the factor which does not affect the colour of the milk [U] / [CO1]

a). Breed b). Feed

c). Size of fat globules d). Size of the cow

5. AGMARK is a certification mark used on: [K] / [CO1]

a). leather Industry b). Agricultural field c). Chemical Industry d). Oil Industry

6. What is the function of casein in milk? [U] / [CO1]

a). Provides sweetness b). Gives structure

c). Aids digestion d). Acts as a preservative

7. FSSAI requires that all dairy establishments must have which of the following certifications [K] / [CO1]

a). Export license b). FSSAI license c). ISO Certification d). Organic certification

8. What is the primary sugar found in milk? [U] / [CO1]

a). Glucose b). Sucrose c). Fructose d). Lactose

9. Filtration is important in milk processing because it ensures that the milk is: [K] / [CO2]

a). Free from fat b). Free from dirt and solid particles

c). Homogeneous d). Free from bacteria

10. Pasteurization of milk is primarily done to: [K] / [CO2]

a). Increase the shelf life of milk b). Enhance the flavor

c). Improve the nutritional content d). Increase the fat content

11. What causes milk to spoil? [U] / [CO1]

a). High temperature b). Bacteria

c). Low pH d). All options are correct

12. The maximum punishment under the PFA Act, 1954, for food adulteration is: [K] / [CO1]

a). Fine of up to ₹500

b). Imprisonment for a maximum of 6 months and/or fine

c). Imprisonment for life

d). Imprisonment for a maximum of 1 year

13. What is the consistency of colostrum compared to normal milk? [K] / [CO1]

a). More watery b). Thicker

c). Same consistency d). Completely solid

14. Identify the adulterant which imparts a sweet taste to the milk [K] / [CO1]

a). Cane Sugar b). Ammonium Sulphate c). Iodine d). Carotenoids

15. Find out the neutraliser used in dairy products [K] / [CO1]

a). Sodium Hydroxide b). Sodium carbonate c). Sodium Bicarbonate d). All of the Above

16. In the LTLT pasteurization method, milk is typically heated to a temperature of: [K] / [CO2]

a). 100°C b). 72°C c). 85°C d). 63°C

17. Which of the following is true about the fat content of colostrum compared to normal milk? [K] / [CO1]

a). Colostrum has less fat b). Colostrum has more fat

c). Both have the same fat content d). Colostrum has no fat

18. Why is imitation milk consumed? [U] / [CO3]

a). Lower cost b). Lactose intolerance or veganism

c). Higher fat content d). Added probiotics

19. What is the typical pH range of milk after fermentation? [U] / [CO4]

a). 6.4-6.7 b). 3.5-3.7 c). 7.7-7.9 d). 4.5-4.7

20. The composition of condensed milk includes approximately what percentage of water? [U] / [CO3]

a). 20% b). 60% c). 50% d). 75%

21. Flavored milk is often fortified with: [K] / [CO3]

a). Fiber b). Probiotics

c). Calcium and vitamin D d). Iron

22. The milk in which milk protien of skim milk powder is substituted by vegetable protien isolated from groundnut is called [U] / [CO3]

a). Vegetable toned milk b). Standardised milk

c). Condensed milk d). Homogenised milk

23. Which component’s absorption might improve due to homogenization? [U] / [CO3]

a). Lactose b). Fat

c). Protein d). Iron

24. The process of churning in butter-making is most commonly done using which tool? [U] / [CO4]

a). A blender b). A butter churn or mixer

c). A milk separator d). A stove

25. The benefits of vitaminised milk are [U] / [CO3]

a). increased nutrient intake

b). enhance immune Function

c). Improve bone health

d). All options are correct

26. Which of the following is a common adulterant added to ghee to increase its weight or volume? [K] / [CO4]

a). Starch b). Sugar c). Salt d). Vinegar

27. Which of the following is NOT a benefit of vegetable-toned milk? [U] / [CO3]

a). It provides essential fatty acids b). It is a low-calorie alternative to regular milk

c). It contains more cholesterol than whole milk d). It is a suitable option for people who are lactose intolerant

28. Compare yogurt and curd in terms of their primary difference [U] / [CO4]

a). Yogurt uses specific bacterial cultures, while curd uses natural bacteria

b). Curd is sweeter than yogurt

c). Yogurt is always homemade, curd is industrial

d). Yogurt has no bacterial fermentation

29. Which of the following nutrients is found in significant amounts in butter? [K] / [CO4]

a). Vitamin D b). Vitamin C c). Vitamin E d). Vitamin B12

30. The soft spongy sweet made from chana is [U] / [CO4]

a). Rasgulla b). Peda c). Gulab Jamun d). Burfi

31. Standardized milk typically has a fixed percentage of: [K] / [CO3]

a). Water content b). Fat content

c). Sugar content d). Protien content

32. Show the process that prevents natural creaming in milk. [U] / [CO4]

a). Filtration b). Pasteurization c). Homogenization d). Fermentation

33. What is the definition of rancidity? [K] / [CO4]

a). The process of milk fermentation b). The spoilage of food due to microbial growth

c). The deterioration of fats and oils, resulting in unpleasant odors d). The process of drying food for preservation

and flavors

34. Explain how chana is made. [U] / [CO4]

| | | | |
|---|---|---|---|
| a). Coagulating milk using an acid | b). Heating milk to high temperatures | c). Mixing milk with khoa | d). Adding sugar to milk |

35. Name the drying process in which the concentrated milk is sprayed into a hot air chamber, causing the droplets to dry instantly and fall as powder? [U] / [CO4]

a). Spray drying b). Drum drying

c). Cooling d). All options are correct

**[1x35 = 35]**

**25900034** **B**

**Reg.No : .....**

**Name : .....**

# MAHATMA GANDHI UNIVERSITY, KOTTAYAM

## MGU-UGP (HONOURS) REGULAR EXAMINATION MARCH 2025

## SECOND SEMESTER

## Multi-Disciplinary Courses (MDC) - MG2MDCCHE100 - DAIRY CHEMISTRY

(2024 ADMISSION ONWARDS)

**Duration: 0.75 Hours** **Maximum Marks: 35**

***Remember(K), Understand(U), Apply(A), Analyse(An), Evaluate(E), Create(C), Skill(S), Interest(I) and Appreciation(Ap)***

Students should attempt at least one question from each course outcome to enhance their overall outcome attainability.

### Part A

Multiple choice questions

Answer all questions

Each question carries **1** marks

1. Find out the neutraliser used in dairy products [K] / [CO1]

   a). Sodium Hydroxide | b). Sodium carbonate | c). Sodium Bicarbonate | d). All of the Above

2. FSSAI requires that all dairy establishments must have which of the following certifications [K] / [CO1]

   a). Export license | b). FSSAI license | c). ISO Certification | d). Organic certification

3. Explain how chana is made. [U] / [CO4]

   a). Coagulating milk using an acid | b). Heating milk to high temperatures | c). Mixing milk with khoa | d). Adding sugar to milk

4. The benefits of vitaminised milk are [U] / [CO3]

a). increased nutrient intake

b). enhance immune Function

c). Improve bone health

d). All options are correct

5. The milk in which milk protien of skim milk powder is substituted by vegetable protien isolated from groundnut is called [U] / [CO3]

a). Vegetable toned milk b). Standardised milk

c). Condensed milk d). Homogenised milk

6. AGMARK is a certification mark used on: [K] / [CO1]

a). leather Industry b). Agricultural field c). Chemical Industry d). Oil Industry

7. Why is imitation milk consumed? [U] / [CO3]

a). Lower cost b). Lactose intolerance or veganism

c). Higher fat content d). Added probiotics

8. The soft spongy sweet made from chana is [U] / [CO4]

a). Rasgulla b). Peda c). Gulab Jamun d). Burfi

9. What is the consistency of colostrum compared to normal milk? [K] / [CO1]

a). More watery b). Thicker

c). Same consistency d). Completely solid

10. Which of the following is NOT a benefit of vegetable-toned milk? [U] / [CO3]

a). It provides essential fatty acids b). It is a low-calorie alternative to regular milk

c). It contains more cholesterol than whole milk d). It is a suitable option for people who are lactose intolerant

11. Standardized milk typically has a fixed percentage of: [K] / [CO3]

a). Water content b). Fat content

c). Sugar content d). Protien content

12. In the LTLT pasteurization method, milk is typically heated to a temperature of: [K] / [CO2]

a). 100°C b). 72°C c). 85°C d). 63°C

13. What causes milk to spoil? [U] / [CO1]

a). High temperature b). Bacteria

c). Low pH d). All options are correct

14. What is the function of casein in milk? [U] / [CO1]

a). Provides sweetness b). Gives structure

c). Aids digestion d). Acts as a preservative

15. Pasteurization of milk is primarily done to: [K] / [CO2]

a). Increase the shelf life of milk b). Enhance the flavor

c). Improve the nutritional content d). Increase the fat content

16. Flavored milk is often fortified with: [K] / [CO3]

a). Fiber b). Probiotics

c). Calcium and vitamin D d). Iron

17. Which of the following is a common adulterant added to ghee to increase its weight or volume? [K] / [CO4]

a). Starch b). Sugar c). Salt d). Vinegar

18. Choose the factors that leads to microbial spoilage of milk [U] / [CO1]

a). Contamination from the milk gland

b). Unhygienic milker and vessels

c). Both contamination from milk gland & Unhygienic milker and vessels

d). None of the options are correct

19. Find out the correct expression for specific gravity of milk [K] / [CO1]

a). Density of milk / Density of water at 0 degree Celsius

b). Density of milk / Density of water at 25 degree Celsius

c). Density of milk / Density of water at the same temperature

d). Density of milk / Density of water at 100 degree celsius

20. Which of the following nutrients is found in significant amounts in butter? [K] / [CO4]

a). Vitamin D b). Vitamin C c). Vitamin E d). Vitamin B12

21. Which of the following is true about the fat content of colostrum compared to normal milk? [K] / [CO1]

a). Colostrum has less fat b). Colostrum has more fat

c). Both have the same fat content d). Colostrum has no fat

22. Show the process that prevents natural creaming in milk. [U] / [CO4]

a). Filtration b). Pasteurization c). Homogenization d). Fermentation

23. Identify the adulterant which imparts a sweet taste to the milk [K] / [CO1]

a). Cane Sugar b). Ammonium Sulphate c). Iodine d). Carotenoids

24. Compare yogurt and curd in terms of their primary difference [U] / [CO4]

a). Yogurt uses specific bacterial cultures, while curd uses natural bacteria

b). Curd is sweeter than yogurt

c). Yogurt is always homemade, curd is industrial

d). Yogurt has no bacterial fermentation

25. The composition of condensed milk includes approximately what percentage of water? [U] / [CO3]

a). 20% b). 60% c). 50% d). 75%

26. What is the typical pH range of milk after fermentation? [U] / [CO4]

a). 6.4-6.7 b). 3.5-3.7 c). 7.7-7.9 d). 4.5-4.7

27. What is the definition of rancidity? [K] / [CO4]

a). The process of milk fermentation

b). The spoilage of food due to microbial growth

c). The deterioration of fats and oils, resulting in unpleasant odors and flavors

d). The process of drying food for preservation

28. What is the fat percentage in whole milk? [K] / [CO1]

a). 0.50% b). 1.50% c). 3.50% d). 5.00%

29. Find out the factor which does not affect the colour of the milk [U] / [CO1]

a). Breed

b). Feed

c). Size of fat globules

d). Size of the cow

30. The maximum punishment under the PFA Act, 1954, for food adulteration is: [K] / [CO1]

a). Fine of up to ₹500

b). Imprisonment for a maximum of 6 months and/or fine

c). Imprisonment for life

d). Imprisonment for a maximum of 1 year

31. Which component's absorption might improve due to homogenization? [U] / [CO3]

a). Lactose

b). Fat

c). Protein

d). Iron

32. Name the drying process in which the concentrated milk is sprayed into a hot air chamber, causing the droplets to dry instantly and fall as powder? [U] / [CO4]

a). Spray drying

b). Drum drying

c). Cooling

d). All options are correct

33. What is the primary sugar found in milk? [U] / [CO1]

a). Glucose b). Sucrose c). Fructose d). Lactose

34. Filtration is important in milk processing because it ensures that the milk is: [K] / [CO2]

a). Free from fat

b). Free from dirt and solid particles

c). Homogeneous

d). Free from bacteria

35. The process of churning in butter-making is most commonly done using which tool? [U] / [CO4]

a). A blender

b). A butter churn or mixer

c). A milk separator

d). A stove

**[1x35 = 35]**