



## Milk Quality and Products

Select the one best answer for each question. Please **DO NOT** write on the exam.

### QUALITY MILK PRODUCTION

1. Milk contains how many essential nutrients?
  - a. 11
  - b. 13
  - c. 7
  - d. 9
  
2. According to USDA-AMS Standards, Ice Cream must contain not less than \_\_\_\_\_.
  - a. 10 % Milk solids and 20% milkfat
  - b. 30% Milk Solids and 20% milkfat
  - c. 15% milk solids and 10% milkfat
  - d. 20% milk solids and 10% milkfat
  
3. The microbiological standard threshold for unpasteurized Grade A milk is \_\_\_\_\_ bacteria or less per milliliter of milk.
  - a. 20,000
  - b. 50,000
  - c. 100,000
  - d. 750,000
  
4. The activity/inactivity of the enzyme \_\_\_\_\_ is the basis for confirming the adequacy of pasteurization of milk.
  - a. Phosphatase
  - b. Lipase
  - c. Peroxidase
  - d. Catalase

5. What is the predominant method of pasteurization used for milk in the U.S.?
  - a. Ultra-high temperature (UHT)
  - b. Vat pasteurization
  - c. Ultra-pasteurized (UP)
  - d. High-temperature, short-time (HTST)
  
6. To meet the definition of 100% fat-free, food must contain \_\_\_\_\_ and contain no added fat.
  - a. less than 0.05 g of fat per 100g
  - b. zero g of fat per 100 g
  - c. less than 0.5 g of fat per 100g
  - d. less than 1.0 g of fat per 100g
  
7. How often should a bulk tank be cleaned and sanitized?
  - a. Every time it is emptied
  - b. Every two days
  - c. Once a week
  - d. Once a month
  
8. A2 Milk is produced by cows that naturally produce only type?
  - a. A2 protein
  - b. A2 butterfat
  - c. A2 lactose
  - d. A2 carbohydrate
  
9. What is the most used feed ingredient on a farm?
  - a. Hay
  - b. Corn Silage
  - c. Water
  - d. Mineral mix

10. Raw milk somatic cell count must be \_\_\_\_\_ or less to meet Grade A government standards in the United States.
- 20,000
  - 50,000
  - 400,000
  - 750,000
11. Typical farm milk consists of \_\_\_\_\_.
- 87.3 % water, 4.00 fat, 3.2% protein, 5.5% other solids
  - 50.6 % water, 3.7% fat, 4.2% protein, 41.5% other solids
  - 80.6 % water, 6.7% fat, 4.2% protein, 8.5% other solids
  - 84.6 % water, 4.7% fat, 6.2% lactose, 4.5% other solids
12. Similar to human fingerprints, cow \_\_\_\_\_ are detailed, nearly unique, difficult to change, and remain the same over the life of an individual, making them ideal long-term markers of identity.
- hooves
  - eyes
  - tongues
  - noses
13. \_\_\_\_\_ is the main nutrient provided by soybean meal in a dairy feed ration.
- Protein
  - Fat
  - Vitamin D
  - Carbohydrate
14. The high acid flavor in milk is caused by
- feeding cows moldy hay
  - excessive agitation of warm raw milk
  - exposing milk to sunlight
  - bacterial growth

15. How long does it take for the cow to reach optimal oxytocin levels, after udder stimulation?
- a. more than 4 minutes
  - b. 4 minutes
  - c. 1 to 2 minutes
  - d. 15 seconds
16. Compared to a Holstein cow, on a per gallon of milk basis, the average Jersey cow produces?
- a. more fat and total milk solids
  - b. more fat but less total solids
  - c. less fat and total milk solids
  - d. less fat but more total milk
17. For removing biofilms from milk equipment, which of the following is expected to be most effective?
- a. Hot water
  - b. Peracetic acid
  - c. Detergent
  - d. Sodium Chloride
18. What is the most common cause of high bacteria counts in milk?
- a. Dirty milking equipment
  - b. Environmental contamination
  - c. Milkers not wearing gloves
  - d. Milking cows with high SCC
19. While cow numbers in the nation's dairy herd held steady in 2021, the dairy farm numbers did not follow the same course. Dairy farm numbers fell to under the threshold for the first time since America's pioneer days.
- a. 10,000
  - b. 15,000
  - c. 25,000
  - d. 30,000

20. The specific gravity of milk is 1.032 at 60°F. Knowing the specific gravity of a milk sample and testing the freezing point of milk with a cryoscope is used to determine
- microbacteria count of milk
  - adulteration of milk with water
  - titratable acidity of milk
  - somatic cell count
21. The California Mastitis Test (CMT) test detects \_\_\_\_\_ in raw milk.
- bacteria
  - red blood cells
  - somatic cells
  - Antibiotics
22. What is the protein in milk that entraps milk fat within the curd matrix during the manufacture of cheese?
- casein
  - calcium
  - crude protein
  - whey protein
23. The off-flavor in milk generally caused by exposure to sunlight or fluorescent light is \_\_\_\_.
- Salty
  - Rancid
  - Oxidized
  - Malty
24. Which portion of milking procedure is recommended because it flushes potential mastitis-causing bacteria from the end of the teat canal, allows you to observe early signs of clinical mastitis and helps promote milk letdown?
- predipping
  - forestripping
  - postdipping
  - drying

25. One gallon of milk weighs approximately \_\_\_\_\_ pounds
- 8.6
  - 6.8
  - 10.1
  - 6.5
26. The key to boosting milk protein lies largely in getting the correct amino acids to which part of the cow's digestive tract.
- Reticulum
  - Omasum
  - Abomasum
  - Rumen
27. In ice cream, the term that refers to the volume of air relative to the initial volume of ice cream mix is \_\_\_\_\_.
- Airiness
  - Viscosity
  - Fluffiness
  - Overrun
28. Even when there are no clinical signs, a cow's milk production begins to decline when its somatic cell count is greater than how many cells/ml?
- 100,000 cells/ml
  - 200,000 cells/ml
  - 400,000 cells/ml
  - 750,000 cells/ml
29. Certain types of bacteria form what kind of cell structure that are resistant to heat and sanitizers?
- Mycotoxin
  - Nuceli
  - Ribosomes
  - Endospores

30. In the past 50 years, milk production per cow in the United States has increased from 9,751 to \_\_\_\_\_ pounds.

- a. 13,666
- b. 23,777
- c. 41,888
- d. 50,479



# Milk Quality and Products

## 2022 - QUALITY MILK PRODUCTION KEY

Question	Answer	Standard	Standard	Standard
1.	B			
2.	D			
3.	C			
4.	A			
5.	D			
6.	C			
7.	A			
8.	A			
9.	C			
10.	D			
11.	A			
12.	D			
13.	A			
14.	D			
15.	C			
16.	A			
17.	B			
18.	A			
19.	D			
20.	B			
21.	C			
22.	A			
23.	C			
24.	B			
25.	A			
26.	C			
27.	D			
28.	B			
29.	D			
30.	B			





## Milk Quality and Products

*Select the one best answer for each question. Please DO NOT write on the exam*

### MILK MARKETING

31. Many U.S. dairy cooperatives belong to an organization that is the dairy farmers' chief lobbying voice in the nation's capital. What is the name of the organization?
- International Dairy Federation
  - Dairy Farmers of America
  - National Milk Producers Federation
  - International Dairy Foods Association
32. Who is the U.S. Secretary of Agriculture?
- Tom Vilsack
  - Sonny Perdue
  - Ann Veneman
  - John Block
33. A recent survey conducted by Hoard's Dairyman reported that 55% of dairy farms feed waste milk to \_\_\_\_\_.
- A. first calf heifers
  - B. calves
  - C. 2-year-old cows
  - D. cats
34. Milk marketing cooperatives
- provide marketing power for dairy farmers.
  - control Federal Orders.
  - operate only outside Federal Orders.
  - are not permitted by Federal Orders.

35. Classified pricing under Federal Milk Marketing is a system that assigns value to milk based on the end use of the product. Class II pricing includes milk used to make \_\_\_\_\_.
- A. dry whole milk
  - B. spoonable (soft) dairy products
  - C. mozzarella cheese
  - D. pasteurized milk
36. The reason Federal Milk Market Administrators test grade A milk for composition and audit records of purchases by dealers is to \_\_\_\_\_ .
- ensure an adequate supply of milk
  - ensure fairness in the marketing of the milk
  - help dealers with their business affairs
  - keep the government informed
37. What is the term that is an estimate of what it costs to transform milk into a finished dairy product like butter or cheese? These estimates are important because the values are used by USDA in setting the monthly minimum prices that regulated plants must pay for the components in your milk checks
- Cost ratio
  - Make allowance
  - Competitive pay price
  - Producer Price differential
38. Created by the Fluid Milk Promotion Act of 1990, this organization collects an assessment from processors marketing more than 3 million pounds of milk and develops and finances generic advertising programs to expand markets and uses of US fluid milk products.
- Dairy Marketing Inc.
  - National Milk Producers Federation
  - National Fluid Milk Processor Promotion Board
  - International Dairy Federation

39. The Dairy Margin Coverage (DMC) program offers protection to dairy producers when the difference between the all-milk-price and the average feed price (the margin) falls below a certain dollar amount selected by the producer. In 2021, the DMC program made indemnity payments totaling nearly \_\_\_\_\_ to producers who chose to be covered.
- \$990,000
  - \$1.2 million
  - \$1.2 billion
  - \$5.0 billion
40. Which was the top yogurt producing state in 2021?
- Wisconsin
  - California
  - New York
  - Idaho
41. Which cooperative marketed the most milk in 2021?
- Associated Milk Producers, Inc.
  - Dairy Farmers of America
  - Land O'Lakes
  - Southwest Dairy Farmers
42. While there were significant disruptions in trade throughout 2021, total US dairy export value \_\_\_\_\_ when compared to the dairy exports of 2020.
- grew by 18%
  - decreased by 18%
  - grew by 25%
  - declined significantly by 20%
43. Federal Milk Market Orders provide \_\_\_\_\_ to distribute moneys fairly among producers supplying milk to a market.
- a producer settlement fund
  - a board of commissioners
  - classified pricing
  - creative product pricing

44. Most dairy cows are milked two to three times per day. On average, a Holstein dairy cow will produce \_\_\_\_\_ gallons of milk each day.
- 1 to 2
  - 8 to 9
  - 15 to 16
  - 20 to 21
45. Since 1984, when President Ronald Reagan proclaimed a National Ice Cream Month, it has been celebrated annually, every \_\_\_\_\_?
- August
  - July
  - May
  - June
46. \_\_\_\_\_ has the greatest number of dairy cows in the world with over 40 million cows.
- India
  - China
  - United States
  - Canada
47. Although, some states produce more milk than their population can consume (net exporters of milk), other states do not produce enough milk to fulfill their population needs (net importers of milk). Which of the following states is a net importer of milk?
- Idaho
  - South Dakota
  - Oregon
  - Georgia
48. Traditionally, Mozzarella cheese is made from the milk of water buffalo. When compared to mozzarella from dairy cattle milk, mozzarella from water buffalo milk is lower in:
- Calcium
  - Protein
  - Cholesterol
  - Iron

49. To make one pound of butter requires approximately \_\_\_\_\_ pounds of whole milk.
- a. 8
  - b. 10
  - c. 21
  - d. 44
50. Which state recorded the largest percentage gain of milk production with an increase of 16.7% during 2021?
- a. California
  - b. Wisconsin
  - c. South Dakota
  - d. Wyoming
51. The combining total classified value of producer milk received by every handler regulated under a milk order is defined as \_\_\_\_\_.
- a. minimum pricing
  - b. producers' production pricing
  - c. classified pricing
  - d. marketwide pooling
52. Which country purchased the most dairy products from the United States during 2021?
- a. Mexico
  - b. New Zealand
  - c. Canada
  - d. China
53. California, Wisconsin and Idaho were the three largest milk producing states in 2021. Their production accounted for \_\_\_\_\_ percent of the U.S. milk production in 2021.
- a. 20
  - b. 40
  - c. 60
  - d. 80

54. \_\_\_\_\_ is an effective natural choice exercise recovery drink due to its powerful nutrient package that supplies the nutrition the body needs after a workout. It has carbohydrates to help refuel the body; protein to help reduce muscle breakdown and stimulate growth; and fluid and electrolytes to aid in rehydration. Drinking it after resistance training has been shown to increase the body's ability to make new muscle and may help improve body composition
- Chocolate milk
  - Greek yogurt
  - Gatorade
  - Whey protein concentrate
55. Which countries lead the world in milk production and cattle milk production, respectively?
- India and United States
  - China and New Zealand
  - China and United States
  - India and New Zealand
56. Which of the following is true of Kefir??
- A. It is a fermented milk drink
  - B. It is made from the milk of cattle, goats, or sheep
  - C. It is fermented with a culture of bacteria and yeasts
  - D. All of the above
57. Milk from this species is the most widely consumed milk in the world?
- Cattle
  - Goat
  - Sheep
  - Water buffalo

58. The Dairy Research and Promotion Program, also known as the Dairy Checkoff Program, is a national producer and importer program for dairy product promotion, research, and nutrition education. To fund the program, U.S. dairy farmers pay a 15-cents- per hundred-weight assessment on their milk and importers pay \_\_\_\_\_ per hundred-weight on dairy products imported into the U.S.
- 30-cents
  - 22-cents
  - 7.5 cents
  - 5-cents
59. The actual milk check amount received by a dairy farmer is called the \_\_\_\_\_.
- fair market price
  - cooperative uniform price
  - mailbox price
  - Federal Order uniform price
60. What item of federal legislation authorized the legality of farmer cooperatives and provided them with legal rights of negotiation for their members in matters related to the pricing structures and marketing of milk products?
- Morrill Act
  - Sherman Act
  - Capper-Volstead Act
  - Farm Bill



## Milk Quality and Products

### 2022-MILK MARKETING KEY

Question	Answer	Standard	Standard	Standard
31.	C			
32.	A			
33.	B			
34.	A			
35.	B			
36.	A			
37.	B			
38.	C			
39.	C			
40.	C			
41.	B			
42.	A			
43.	A			
44.	B			
45.	B			
46.	A			
47.	D			
48.	C			
49.	C			
50.	D			
51.	D			
52.	D			
53.	B			
54.	A			
55.	A			
56.	D			
57.	B			
58.	C			
59.	C			
60.	C			