

**Milk Quality and Products Career Development Event**  
**Milk Production**  
**2017**

1. Cheese manufacturers realize greater yields from milk when the somatic cell counts are low and the \_\_\_\_\_.
  - A. protein content is low
  - B. milkfat content is low
  - C. protein content is high
  - D. carbohydrate content is high
  
2. 98% of the microorganisms that call a cow's rumen stomach home are what type?
  - A. Archaea
  - B. bacteria
  - C. diatoms
  - D. fungi
  
3. The microbiological standard for Grade A unpasteurized milk is \_\_\_\_\_ bacteria or less per milliliter of milk.
  - A. 50,000
  - B. 75,000
  - C. 100,000
  - D. 750,000
  
4. According to the National Animal Health Monitoring System data, what do most farmers site as the most common criteria for weaning a calf?
  - A. age
  - B. starter intake
  - C. weight
  - D. space constraints
  
5. The major cause of salty flavor in milk is \_\_\_\_\_.
  - A. the large intake of salt by the cow
  - B. mastitis
  - C. exposure to sunlight
  - D. bacteria
  
6. Which of the following fatty acids found in milk have been associated with health benefits in humans?
  - A. oleic acid
  - B. conjugated linoleic acid
  - C. butyric acid
  - D. lactic acid
  
7. Stainless steel equipment is used to produce, store and process milk because \_\_\_\_\_.
  - A. surfaces do not corrode easily
  - B. stainless steel is a relatively low-cost metal
  - C. surfaces cannot be easily polished
  - D. stainless has a dull finish

8. Lactose is the principal \_\_\_\_\_ in milk.
- A. mineral  
B. protein  
C. fat  
D. carbohydrate
9. Excessive agitation of raw milk is a common cause of the off-flavor \_\_\_\_\_.
- A. oxidized  
B. acid  
C. rancid  
D. metallic
10. Historically, the two most important diseases of cattle transmissible to man through raw milk are \_\_\_\_\_ and \_\_\_\_\_.
- A. tuberculosis and brucellosis  
B. brucellosis and scarlet fever  
C. scarlet fever and Q fever  
D. tuberculosis and anthrax
11. \_\_\_\_\_ is the test used to check for water added to milk.
- A. acid degree value  
B. cryoscope  
C. Kjeldahl  
D. titratable acidity
12. When pasteurizing milk, the minimum temperature that raw milk must be heated to for 15 seconds is \_\_\_\_\_.
- A. 111 degrees F  
B. 121 degrees F  
C. 161 degrees F  
D. 171 degrees F
13. What is a test used to screen for antibiotics in milk?
- A. direct microscopic  
B. cryoscope  
C. Kjeldahl  
D. Charm
14. When cooling milk on the farm, what temperature must the bulk storage system reach within two hours of the end of a milking?
- A. > 40 degrees F  
B. < 40 degrees F  
C. < 45 degrees F  
D. < 38 degrees F
15. Distillers grains provide primarily what two nutrients to a dairy cattle diet?
- A. carbohydrates and minerals  
B. vitamins and fat  
C. fat and protein  
D. fatty acid and minerals
16. The principal protein in milk is \_\_\_\_\_.
- A. casein  
B. whey protein  
C. crude protein  
D. lactoglobulin
17. Raw milk somatic cell count must be \_\_\_\_\_ or less to meet Grade A standards in the United States.
- A. 100,000  
B. 250,000  
C. 400,000  
D. 750,000

18. In a herd milked three times a day, no cows should have a long lag time. The time from when the cow is stimulated to milker attachment should be less than \_\_\_\_\_ seconds.
- A. 30
  - B. 90
  - C. 120
  - D. 150
19. What is the number one reason for culling cows on American dairy farms, according to National Health Monitoring System data?
- A. lameness
  - B. reproduction problems
  - C. high somatic cell count
  - D. low production
20. The off-flavor in milk generally caused by exposure to sunlight or fluorescent light is \_\_\_\_\_.
- A. rancid
  - B. oxidized
  - C. acid
  - D. malty
21. The document used by the U.S. dairy industry that contains the rules for producing today's fresh pasteurized milk supply is \_\_\_\_\_.
- A. The Code of Federal Regulations
  - B. Standard Methods for the Examination of Dairy Products
  - C. The Grade A Pasteurized Milk Ordinance (PMO)
  - D. The Codes Alimentarius of the World Health Organization
22. Somatic cells occurring in large numbers in milk indicates \_\_\_\_\_.
- A. a cow has mastitis
  - B. cows consume too much protein
  - C. milking machines are dirty
  - D. poor cooling of the milk in the bulk tank
23. People who consume full-fat dairy are less likely to develop what disease?
- A. Tuberculosis
  - B. Diabetes
  - C. Cancer
  - D. Pneumonia
24. Typical farm milk consists of \_\_\_\_\_.
- A. 87.6% water, 3.7% fat, 3.2% protein, 5.5% other solids
  - B. 50.6% water, 3.7% fat, 4.2% protein, 41.5% other solids
  - C. 80.6% water, 6.7% fat, 4.2% protein, 8.5% other solids
  - D. 84.6% water, 4.7% fat, 6.2% protein, 4.5% other solids
25. What hormone, which blocks the let-down of milk, is released into the cow's bloodstream when it is stressed?
- A. oxytocin
  - B. parathyroid hormone
  - C. adrenaline
  - D. gonadotrophin-releasing hormone

26. Poor quality forage will cause \_\_\_\_\_ to decrease significantly.
- A. somatic cells
  - B. bacteria count
  - C. casein percentage
  - D. fat percentage
27. The CMT test detects \_\_\_\_\_ in raw milk.
- A. bacteria
  - B. red blood cells
  - C. somatic cells
  - D. antibiotics
28. Among the various food groups, dairy products serve as the leading source of \_\_\_\_\_ in the American diet.
- A. iron
  - B. magnesium
  - C. carbohydrates
  - D. calcium
29. The rolling herd average is defined as \_\_\_\_\_.
- A. an average of the herd's fat and protein percentages
  - B. an average of the number of cows in milk at any given time
  - C. the average number of hours a cow in the herd is milked per lactation
  - D. an estimate of annual milk production
30. One gallon of milk weighs approximately \_\_\_\_\_ pounds.
- A. 5.5
  - B. 7.8
  - C. 8.6
  - D. 10.1

# Milk Quality and Products Career Development Event

## Milk Production

2017

### Answer Key

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

# Milk Quality and Products Career Development Event

## Milk Marketing

2017

31. During 2016 the state that held a hearing to listen to testimony for a proposal to create a Federal Milk Marketing Order was....
- A. New York
  - B. Wisconsin
  - C. California
  - D. Idaho
32. Under Federal Orders milk is priced based on the finished dairy product in which it is used. This is called \_\_\_\_\_.
- A. minimum pricing
  - B. maximum pricing
  - C. creative pricing
  - D. classified pricing
33. The actual milk check amount received by a dairy farmer is called the \_\_\_\_\_.
- A. milk-feed ratio price
  - B. cooperative bonus premium
  - C. Federal Order price
  - D. mailbox price
34. What piece of legislation made farmer cooperatives legal?
- A. Capper-Volstead Act
  - B. Sherman Act
  - C. Farm Bill
  - D. Barkley Act
35. A primary reason for establishing minimum farm milk prices through the Federal milk orders is...
- A. to insure all dairymen have a market for milk
  - B. to insure all processors have adequate milk for manufacture of butter and feeds
  - C. to insure an adequate supply of milk for the consumer
  - D. to provide federal control of the production of milk
36. Dairy consumption growth in the United States is only 0.8 percent, but foreign consumption is growing much more quickly. Which country has increased in dairy consumption the most?
- A. Mexico
  - B. New Zealand
  - C. China
  - D. European Union (EU)
37. Which cheese variety produced in the U.S. is the most commonly consumed in recent years?
- A. Cheddar
  - B. Mozzarella
  - C. Italian style cheese
  - D. Queso fresco
38. A milk producer would receive the maximum price for milk delivered within a milk market order, if all of the milk was used to make \_\_\_\_\_.
- A. dry whole milk
  - B. ice cream
  - C. mozzarella cheese
  - D. fluid pasteurized milk
39. Federal Milk Marketing Orders are \_\_\_\_\_ programs that define the terms under which haulers of milk within a specific marketing order purchase milk from dairy farmers.
- A. mandatory
  - B. congressionally required
  - C. voluntary
  - D. elected

40. Over half of the top 50 U.S. dairy cooperatives belong to a federation that is dairy farmers' chief lobbying voice in the nation's capital. What is the name of the federation?
- A. International Dairy Federation
  - B. Dairy Farmers of America Federation
  - C. National Milk Producers Federation
  - D. International Dairy Foods Association
41. To make one pound of Cheddar cheese requires approximately \_\_\_\_\_ pounds of whole milk.
- A. 8
  - B. 10
  - C. 22
  - D. 44
42. A Federal Milk Marketing Order is authorized only if two-thirds of the affected \_\_\_\_\_ milk to the proposed marketing area approves its implementation.
- A. dairy cooperatives supplying
  - B. producers supplying
  - C. cheese processors manufacturing
  - D. handlers processing
43. Federal Milk Marketing Orders provide \_\_\_\_\_ to distribute moneys fairly among producers supplying milk to a market.
- A. a milk cooperative
  - B. a board of commissioners
  - C. supply-demand equalization
  - D. a producer settlement fund
44. According to the Food and Nutrition Board of the National Academy of Sciences, all people need at least \_\_\_\_\_ milligrams of calcium per day.
- A. 10
  - B. 100
  - C. 1,000
  - D. 1,000,000
45. The \_\_\_\_\_ is a voluntary program to help score a farm's animal welfare practices against the industry recommendations. It is operating as a partnership of the National Milk Producers Federation and Dairy Management Inc.
- A. National F.A.R.M. program (Farmers Assuring Responsible Management)
  - B. National Dairy Checkoff Program
  - C. Agriculture's Animal and Plant Health Inspection Service (APHIS)
  - D. Animal Welfare Act (AWA)
46. A system of fairly distributing payment among producers in a Federal Milk Market is called, , , ,
- A. quota options
  - B. base-excess pricing
  - C. seasonal incentive pricing
  - D. pooling
47. Dividing the total dollars a dairy has in assets by the number of cows determines which economic indicator?
- A. equity
  - B. total investment per cow
  - C. debt per cow
  - D. debt to asset ratio

48. Marketing cooperatives often offer incentives to dairy farmers for producing milk having which of the following special characteristics?
- A. low volume milk production per cow
  - B. low protein content
  - C. high somatic cell count
  - D. low bacteria count
49. \_\_\_\_\_ is an effective exercise recovery 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 show to increase the body's ability to make new muscle and may help improve body composition.
- A. Chocolate milk
  - B. Greek yogurt
  - C. Gatorade
  - D. Whey protein concentrate
50. Since 1984 President Ronald Reagan proclaimed a National Ice Cream Month. It has been celebrated annually, every \_\_\_\_\_.
- A. June
  - B. July
  - C. August
  - D. September
51. USDA Farm Service Agency administers \_\_\_\_\_ that offers dairy producers a catastrophic coverage when the difference between the all-milk price and average feed costs falls below a specified level.
- A. Margin Protection Program
  - B. Cooperatives Working Together
  - C. Federal Market Orders
  - D. DEIP Exports
52. Milk marketing cooperatives...
- A. are not permitted by Federal Orders
  - B. provide marketing power for dairy farmers
  - C. control Federal Orders
  - D. operate only outside Federal Orders
53. Most dairy cows are milked two or three times per day. On average, a cow will produce \_\_\_\_\_ gallons of milk each day.
- A. 1 to 2
  - B. 8 to 9
  - C. 15 to 16
  - D. 20 to 21
54. Prices paid by handlers are identical in all federal orders for milk utilized in the manufactured product categories, however milk used in Class I varies by location. The highest price paid for Class I milk is in the \_\_\_\_\_ regions of the United States.
- A. Southeast
  - B. Midwest
  - C. Northwest
  - D. Northeast



55. Dairy is the second largest organic food category accounting for what percentage of total organic food sales?
- A. 5 percent
  - B. 15 percent
  - C. 25 percent
  - D. 35 percent
56. Which of the following flavors of ice cream is the most popular, by sales volume?
- A. Raspberry
  - B. Strawberry
  - C. Vanilla
  - D. Chocolate
57. In a milk market with four classes of milk, Class III milk is commonly used for...
- A. fluid products
  - B. cottage cheese and cream products
  - C. cheese
  - D. butter and dry products
58. According to the Dietary Guidelines for Americans 2015-2020, what percentage of the population is not getting the recommended three servings of dairy daily?
- A. less than 12 percent
  - B. 50 percent
  - C. 85 percent
  - D. 90 percent
59. Milk has more protein than you may think. An 8-ounce glass of real milk has \_\_\_\_\_ times more protein than a similar sized serving of a plant-based beverage, like almond milk. In addition, milk protein is a complete protein, while most plant protein sources are missing some of the amino acids your body needs.
- A. 2
  - B. 8
  - C. 20
  - D. 31
60. Federal milk order hearings can be lengthy because \_\_\_\_\_ can testify and \_\_\_\_\_ can cross-examine the witness.
- A. only Federal employees, no one
  - B. only cooperative managers, anyone
  - C. only Federal lawyers, anyone
  - D. any interested party, anyone

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**Answer Key**

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