

# 2018 State FFA Milk Quality and Products CDE Exam

## MILK PRODUCTION

1. A CMT test appearance with a strong gel formation that tends to adhere to the paddle and forms a distinct central peak would have a leukocyte per ml of:  
A. Below 200,000  
B. 150,000 – 500,000  
C. 800,000 – 5,000,000  
D. Over 8,000,000
2. A leading cause of high bacteria counts in raw milk is:  
A. BST  
B. poor sanitation  
C. older cows  
D. younger cows
3. \_\_\_\_\_ is a defect in milk that is described as tasting like Grape-nuts cereal.  
A. bitter  
B. malty  
C. flat  
D. oxidized
4. Generally, which breed produces milk with the highest percentage of protein?  
A. Holstein  
B. Ayrshire  
C. Brown Swiss  
D. Jersey
5. Somatic cells occur in large numbers in milk when:  
A. milk has not been cooled properly  
B. poor sanitation of tanks and equipment occurs  
C. milk from cows with mastitis is added to the bulk milk  
D. milk is agitated on its way to the processing facility
6. \_\_\_\_\_ off-flavor may be present in milk from cows in late stages of lactation or cows infected with mastitis.  
A. Salty  
B. Rancid  
C. Bitter  
D. Malty
7. In the U.S., if cheese is made from unpasteurized milk it must be a variety that has a low pH and must be stored at refrigeration temperature for \_\_\_\_\_ days before it can be sold  
A. 90  
B. 10  
C. 30  
D. 60
8. The major group of proteins in milk are:  
A. bovine serum albumin  
B. caseins  
C. whey proteins  
D. none of the above
9. The most abundant mineral in milk is:  
A. Iodine  
B. Magnesium  
C. Phosphorus  
D. Calcium
10. After milking a cow the cow's teats should be dipped in teat dip:  
A. after 30 seconds  
B. immediately  
C. after 2 minutes  
D. after 1 minute
11. 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

12. 98% of the microorganisms that call a cow's rumen stomach home are what type?  
A. Archaea  
B. bacteria  
C. diatoms  
D. fungi
13. The microbiological standard for Grade unpasteurized milk is \_\_\_\_\_ bacteria or less per milliliter of milk.  
A. 50,000  
B. 75,000  
C. 100,000  
D. 750,000
14. 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
15. 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 steel has a dull finish
16. Lactose is the principal \_\_\_\_\_ in milk.  
A. mineral  
B. protein  
C. fat  
D. carbohydrate
17. Excessive agitation of raw milk is a common cause of the off-flavor \_\_\_\_\_.  
A. oxidized  
B. acid  
C. rancid  
D. metallic
18. 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
19. \_\_\_\_\_ is the test used to check for water added to milk.  
A. acid degree value  
B. cryoscope  
C. Kjeldahl  
D. titratable acidity
20. 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
21. What is a test used to screen for antibiotics in milk?  
A. direct microscopic  
B. cryoscope  
C. Kjeldahl  
D. Charm
22. When cooling milk on the farm, what temperature must the bulk storage system reach within two hours of the end of a milking?  
A. greater than 40 degrees F  
B. Less than 40 degrees F  
C. less than 45 degrees F  
D. less than 38 degrees F



34. Before a tanker of milk can be unloaded at a milk plant it must be checked for
- A. fat
  - B. lactose
  - C. BST
  - D. antibiotics
35. A type of organism that survives pasteurization and can cause "blown cheese" in Cheddar Cheese is a:
- A. mesophilic
  - B. spore former
  - C. psychrotrophic
  - D. none of the above
36. The primary type of starter cultures used in Cheddar cheese manufacture is/are
- A. mesophilic bacteria
  - B. mold
  - C. psychrotrophic bacteria
  - D. none of the above
37. Which of the following products are Class IV milk products?
- A. Fluid milk
  - B. Cheese
  - C. Yogurt/Sour Cream
  - D. Butter/Powder
38. 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
39. 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
40. What piece of legislation made farmer cooperatives legal?
- A. Capper-Volstead Act
  - B. Sherman Act
  - C. Farm Bill
  - D. Barkley Act
41. 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
42. 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)
43. 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
44. 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

45. 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
46. 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
47. To make one pound of Cheddar cheese requires approximately \_\_\_\_\_ pounds of whole milk.
- A. 8  
B. 10  
C. 22  
D. 44
48. 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
49. 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
50. 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
51. 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
52. 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
53. 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
54. 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

55. 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
56. 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. 8-9
  - C. 15 to 16
  - D. 20 to 21
57. 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
58. Which of the following flavors of ice cream is the most popular, by sales volume?
- A. Raspberry
  - B. Strawberry
  - C. Vanilla
  - D. Chocolate
59. 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
60. 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

## 2018 State FFA Milk Quality and Products CDE Exam Key

### MILK PRODUCTION

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

### MILK MARKETING

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