

# 2017 MN FFA Milk Quality and Products Exam

## Milk Marketing

1. The demand function is the relationship between quantity purchased and
  - a. quantity purchased
  - b. quantity sold
  - c. gross income
  - d. price
  
2. A Federal Milk Marketing Order is a regulation issued by the
  - a. Governor
  - b. House of representatives
  - c. Secretary of Agriculture
  - d. president
  
3. In a milk market with three classes of milk, class III is commonly used for
  - a. Cottage cheese
  - b. cheese, butter and dried products
  - c. yogurt and ice cream
  - d. fluid milk
  
4. The code of federal regulations stipulates that whole milk must contain 3.25% fat and \_\_\_\_ % solids non-fat.
  - a. 3.00
  - b. 8.25
  - c. 8.75
  - d. 10.25
  
5. \_\_\_\_ lbs of milk are required to make 1 lb of Cheddar cheese.
  - a. 7
  - b. 10
  - c. 15
  - d. 19
  
6. The purpose of Federal Milk Marketing Orders is to
  - a. stabilize markets by placing requirements on the handling of milk
  - b. increase the price of milk
  - c. ensure the safe handling of milk
  - d. none of the above
  
7. The primary spoilage organisms in pasteurized milk are
  - a. Lactic acid bacteria
  - b. mold
  - c. psychrotrophic bacteria
  - d. none of the above
  
8. If a good is elastic, consumers are
  - a. not sensitive to price
  - b. sensitive to price
  - c. not likely to buy an alternative product
  - d. none of the above
  
9. The size of a marketing area designated in a Federal milk orders provisions is primarily determined by
  - a. population density
  - b. sales territory of competing handlers
  - c. number of producers
  - d. none of the above

10. Each month regulated handlers file a report of milk receipts and utilization with the order market administrator and this information is used to determine
  - a. maximum price paid to processors
  - b. minimum price paid to producers
  - c. minimum price paid to processors
  - d. none of the above
  
11. A food must contain less than \_\_\_\_ grams of fat per serving to be considered a low fat food.
  - a. 8
  - b. 7
  - c. 6
  - d. 3
  
12. Which of the following is a portion of the milk check that a dairy farmer can not control
  - a. milk quality
  - b. volume of milk
  - c. hauling rate
  - d. component levels
  
13. Which of the following dairy products has the most calcium
  - a. cottage cheese
  - b. Cheddar cheese
  - c. skim milk
  - d. whole milk
  
14. Per capita consumption of \_\_\_\_\_ cheese has had the largest percentage increase since 1980.
  - a. Cheddar
  - b. Blue
  - c. Feta
  - d. Mozzarella
  
15. Which of the follow is not a unique trait of milk that makes it difficult to market?
  - a. perishability
  - b. seasonal supply and demand
  - c. can be transformed into many products
  - d. none of the above
  
16. The top two cheese producing states are?
  - a. California and Minnesota
  - b. New York and Minnesota
  - c. Wisconsin and California
  - d. Idaho and Wisconsin
  
17. What percentage of milk produced in the US is used to make cheese
  - a. 15%
  - b. 70%
  - c. 50%
  - d. 35%
  
18. In the last 30 years the number of Federal Milk Marketing Orders has
  - a. increased slightly
  - b. decreased significantly
  - c. stayed the same
  - d. none of the above

19. The law of supply states that producers will increase the amount of resources used when the milk price

- \_\_\_\_\_.
- a. decreases
  - b. does not change
  - c. increases
  - d. none of the above

20. A consequence of seasonal changes in milk production is

- a. seasonal swings in price
- b. excess manufacturing capacity
- c. excess milk production in the spring
- d. all the above

21. What is the justification of government involvement in the marketing of milk?

- a. provide farmers price and income support
- b. reduce price and income variability
- c. improve market power of farmers
- d. all the above

22. The purpose of a "milk check off" is?

- a. determine if a milk contains antibiotics
- b. to increase the milk price support
- c. to pay for generic advertising and research
- d. none of the above

23. UHT milk

- a. has an extended shelf life
- b. is popular in the United States
- c. requires refrigeration
- d. none of the above

24. Which of the follow is not a type of cooperative?

- a. bargaining cooperative
- b. milk marketing cooperative
- c. input cooperative
- d. selective cooperative

25. The farm value of food consumed at home is 33%, while the farm value of food consumed away from home is:

- a. 50%
- b. 40%
- c. 30%
- d. 15%

26. Which of the following is a Class I product

- a. yogurt
- b. cheese
- c. butter
- d. fluid milk

27. The Canadian dairy industry operates under a strict \_\_\_\_\_ system.

- a. free market
- b. paid diversion
- c. milk quota
- d. futures market

28. Class IV milk includes milk used to
- produce hard cheese and cream cheese
  - fluid milk
  - fluid cream and cottage cheese
  - butter and any product in dried form
29. Before a tanker of milk can be unloaded at a milk plant it must be checked for
- fat
  - lactose
  - BST
  - antibiotics
30. The addition of water to milk can be detected by
- measuring somatic cell count
  - measuring fat content
  - measuring protein content
  - measuring the freezing point

### Milk production

31. The process of \_\_\_\_\_ pumps milk under high pressure through tiny openings
- pasteurization
  - ultrafiltration
  - homogenization
  - none of the above
32. The Dairy Herd Improvement Association (DHIA) provides
- payment for lost production
  - premiums for high quality milk
  - milk testing and record keeping programs
  - none of the above
33. \_\_\_\_\_ disease is a wasting disease and animals loose weight even when they eat well.
- Ketosis
  - Mastitis
  - Johne's
  - Milk fever
34. Farmers are paid a premium by some cheese plants for low somatic cell counts because low somatic cell counts
- increase cheese yield
  - decrease cheese yield
  - shorten cheese making time
  - increase the shelf-life of cheese
35. Most healthy open cows will start a new reproductive cycle every \_\_\_\_ days
- 47-50
  - 5-7
  - 21-28
  - 30-34
36. The formation of free fatty acids causes a \_\_\_\_\_ off-flavor in milk
- bitter
  - salty
  - rancid
  - garlic

37. \_\_\_\_\_ is the general name for a class of bacteria that cause mastitis in dairy cattle.
- lactobacillus*
  - lactococcus*
  - Ecoli*
  - staphylococcus*
38. The presence of coliform bacteria in a pasteurized milk sample is an indication of
- high quality milk
  - poor sanitation
  - improper storage
  - none of the above
39. Generally, which breed produces the highest percentage of butterfat in milk
- Holstein
  - Aryshire
  - Brown Swiss
  - Jersey
40. A gallon of milk weighs \_\_\_\_\_ lbs
- 5.6
  - 7.2
  - 8.6
  - 9.4
41. Exposure of milk to fluorescent lighting can cause \_\_\_\_\_ off-flavor
- flat
  - cooked
  - rancid
  - oxidized
42. The normal pH of milk is
- 5.2
  - 6.3
  - 6.7
  - 7.5
43. The \_\_\_\_\_ test measures the fat content of milk
- Kjeldahl
  - Mohr titration
  - Dumas
  - Babcock
44. \_\_\_\_\_ bacteria are used as starter culture during Cheddar cheese manufacturing.
- coliform
  - psychophilic
  - lactic acid
  - none of the above
45. \_\_\_\_\_ flavor is often described as cardboard, metallic, fishy, and painty
- cooked
  - garlic
  - oxidized
  - rancid

46. The back of your tongue is most sensitive to
- sweet
  - sour
  - bitterness
  - salty
47. The low temp long time pasteurization of milk requires a heat treatment of
- 130 degrees F for 40 min
  - 145 degrees F for 30 min
  - 150 degrees F for 5 min
  - 161 degrees F for 1 min
48. \_\_\_\_\_ is a defect in milk that is described as tasteless
- bitter
  - salty
  - flat
  - oxidized
49. After milking a cow the cows teats should be dipped
- After 30 seconds
  - Immediately
  - After 2 minutes
  - After 1 minutes
50. Most UHT pasteurized milk has a shelf life of \_\_\_\_\_ days.
- 10
  - 50
  - 120
  - 180
51. Which of the following is not an advantage of the California mastitis test
- the test is simple
  - the test is fast
  - the test is inexpensive
  - the test does not produce false positive results
52. Milk samples should be tempered to \_\_\_\_\_ degrees F before judging
- 40
  - 60
  - 80
  - 100
53. The standard plate count of milk reports the
- number of aerobic bacteria in a sample
  - number of anaerobic bacteria in a sample
  - somatic cell count
  - percent protein
54. The casein present in milk can be precipitated by adjusting the pH of milk to
- 6.8
  - 7.5
  - 5.2
  - 4.6

55. Frozen bull semen can be stored indefinitely if it is maintained constantly at below \_\_\_\_ °F.
- a. 32
  - b. -50
  - c. -75
  - d. -112
56. The protein in milk classified as whey protein is \_\_\_\_% of the total protein present in milk.
- a. 20
  - b. 40
  - c. 60
  - d. 80
57. The sides of your tongue are most sensitive to
- a. sweet
  - b. sour
  - c. bitterness
  - d. salty
58. During the Babcock test \_\_\_\_\_ is added to digest the nonfat milk solids and melt the fat.
- a. boiling water
  - b. methanol
  - c. sulfuric acid
  - d. hydrochloric acid
59. Aflatoxins, sometime found in dairy feeds, are produced by
- a. mold
  - b. fungi
  - c. yeast
  - d. bacteria
60. The temperature of cooled milk on the farm is usually kept below \_\_\_\_ degrees F.
- a. 20
  - b. 35
  - c. 40
  - d. 50

## 2017 MN FFA Milk Quality and Products Exam Key

- |     |   |     |   |
|-----|---|-----|---|
| 1.  | D | 31. | C |
| 2.  | C | 32. | C |
| 3.  | B | 33. | C |
| 4.  | B | 34. | A |
| 5.  | B | 35. | C |
| 6.  | A | 36. | C |
| 7.  | C | 37. | D |
| 8.  | B | 38. | B |
| 9.  | B | 39. | D |
| 10. | B | 40. | C |
| 11. | D | 41. | D |
| 12. | C | 42. | C |
| 13. | B | 43. | D |
| 14. | D | 44. | C |
| 15. | A | 45. | C |
| 16. | C | 46. | C |
| 17. | C | 47. | B |
| 18. | B | 48. | C |
| 19. | C | 49. | B |
| 20. | D | 50. | D |
| 21. | D | 51. | D |
| 22. | C | 52. | B |
| 23. | A | 53. | A |
| 24. | D | 54. | D |
| 25. | D | 55. | D |
| 26. | D | 56. | A |
| 27. | C | 57. | B |
| 28. | D | 58. | C |
| 29. | D | 59. | A |
| 30. | D | 60. | C |