

## FFA Marketing Exam 2010

1. Milk is sold to the consumer by \_\_\_\_\_.
  - a. weight
  - b. volume
  - c. density
  - d. mass
  
2. Fluid milk that is properly processed will have a shelf life of about \_\_\_\_\_ days.
  - a. 14
  - b. 21
  - c. 28
  - d. 35
  
3. What is the most popular size of container for fluid milk?
  - a. gallon
  - b. half gallon
  - c. quart
  - d. five quart
  
4. Cheddar cheese is usually produced from what kind of milk?
  - a. whole
  - b. skim
  - c. part skim
  - d. homogenized
  
5. The best temperature for refrigerated trucks that haul fluid milk would be approximately \_\_\_\_\_ F.
  - a. 25
  - b. 35
  - c. 45
  - d. 55
  
6. The term that relates most closely with cows would be \_\_\_\_\_.
  - a. porcine
  - b. equine
  - c. canine
  - d. bovine
  
7. The watery part of milk that separates from the curds during the cheese-making process is called \_\_\_\_\_.
  - a. buttermilk
  - b. casein
  - c. whey
  - d. lactose
  
8. Raw milk is milk that has not been \_\_\_\_\_.
  - a. separated
  - b. pasteurized
  - c. homogenized
  - d. tested for antibiotics

9. The three highest milk producing states are:
  - a. Minnesota, Wisconsin and California
  - b. Minnesota, Texas and Pennsylvania
  - c. Wisconsin, Pennsylvania, and California
  - d. California, Wisconsin and New York
  
10. The Dairy Herd Improvement Association is a cooperative that provides \_\_\_\_\_ .
  - a. Data on Breeding Quotas
  - b. Milk testing and record keeping program for dairy cows
  - c. Minimum prices paid by processors to producers for milk
  - d. Assistance to groups of dairy farmers who collectively market their milk
  
11. Federal Milk Marketing Orders apply only to
  - a. Grade A milk
  - b. Grade b milk
  - c. Both a and b
  - d. Neither a or b
  
12. Yogurt will generally have a shelf life \_\_\_\_\_ (than) that of fluid milk.
  - a. shorter
  - b. longer
  - c. the same as
  
13. By definition, a product labeled as “milk” must not contain less than \_\_\_\_\_ % fat.
  - a. 0.5
  - b. 2.0
  - c. 3.25
  - d. none of the above
  
14. Class I milk receives the \_\_\_\_\_ .
  - a. highest price
  - b. lowest price
  - c. same price as Class II and III
  - d. no price
  
15. A dairy farmer in the U.S. is paid based on \_\_\_\_\_ of milk produced.
  - a. gallons
  - b. liters
  - c. hundred weight in pounds
  - d. tons
  
16. What is used to give cheddar cheese its color?
  - a. sodium citrate
  - b. red dye number 3
  - c. annatto
  - d. cadmium
  
17. The main program that promotes milk is:
  - a. Milk Advisory Council
  - b. National Dairy Promotion and Research Program
  - c. Milk Industry Foundation
  - d. National Milk Foundation

18. The Pasteurized Milk Ordinance regulates what?
- Grade A milk
  - Grade B milk
  - Manufacturing grade milk
  - Grade C milk
19. About \_\_\_\_\_ percent of the calcium in the food supply is available from milk and milk products.
- 26
  - 46
  - 76
  - 96
20. Which of the following directly influence(s) the total supply of milk?
- Prices paid milk producers
  - Manufacturing plants
  - Costs of fat production
  - Foreign exports
21. Dairy Farmers can buy and sell futures on what exchange?
- New York stock exchange
  - Standard and Poore's index exchange
  - Russell midcap exchange
  - Chicago Mercantile exchange
22. To make one pound of cheddar cheese requires about \_\_\_\_\_ pounds of whole milk.
- 1
  - 2
  - 5
  - 10
23. The main by-product in producing cheddar cheese is \_\_\_\_\_.
- Fluid milk and cream
  - whey
  - Non fat dried milk powder
  - Condensed milk
24. Velveeta cheese is an example of \_\_\_\_\_ cheese.
- mineral
  - semi-soft colloidal
  - natural
  - processed
25. Vitamins A and D \_\_\_\_\_ to Grade A fluid milk.
- must be added to
  - cannot be added
  - are optional and may be added
  - are in abundance and should not be added

## FFA Production Exam

2010

1. Mastitis is \_\_\_\_\_.
  - a. an infection of the cow's udder
  - b. the cow's inability to produce lactose
  - c. a blood disease found in dairy cattle
  - d. excess ketone production
  
2. The most common breed of dairy cows in the U.S. is the \_\_\_\_\_.
  - a. Shorthorn
  - b. Brown Swiss
  - c. Holstein
  - d. Jersey
  
3. Which of the following is the name used for bacteria that grow in milk at 40-50 degree F?
  - a. coliforms
  - b. mesophiles
  - c. thermophiles
  - d. pschrotrophs
  
4. The form of mastitis that is hidden from sight and not obvious is \_\_\_\_\_.
  - a. infectious
  - b. clinical
  - c. sub-clinical
  - d. acute
  
5. Two tests used to detect mastitis are the \_\_\_\_\_ and \_\_\_\_\_ Mastitis tests.
  - a. California, Oregon
  - b. California, Wisconsin
  - c. California, Minnesota
  - d. Wisconsin, Minnesota
  
6. How many pounds would ten gallons of whole milk weigh?
  - a. 53
  - b. 78
  - c. 104
  - d. 86
  
7. Cheddar cheeses sold in the United States, which are not made from pasteurized milk, must be ripened at least \_\_\_\_\_ days.
  - a. 30
  - b. 60
  - c. 100
  - d. 150
  
8. Colostrum is usually present in the cow's milk for approximately \_\_\_\_\_ after parturition.
  - a. 3 hours
  - b. 1/2 day
  - c. 3 days
  - d. 2 weeks

9. The \_\_\_\_\_ test is used to see if milk has been properly pasteurized.
- lipase
  - coliform
  - standard plate test
  - phosphatase
10. Cultured dairy products include \_\_\_\_\_ and \_\_\_\_\_.
- yogurt, cheese
  - butter, skim milk
  - chocolate milk, UHT milk
  - cheese, ice cream
11. Two chemicals that are routinely used as sanitizers in the dairy industry are \_\_\_\_\_ and \_\_\_\_\_.
- chlorine, iodine
  - BHT, BHA
  - fluorine, magnesium
  - nitric acid, carbon monoxide
12. A \_\_\_\_\_ needs to be applied to the teat end in order for a milking machine to remove milk.
- massaging action
  - pulsation
  - vacuum
  - pressure
13. Separators use \_\_\_\_\_ force to separate whole milk into skim milk and cream.
- gravitational
  - centrifugal
  - thermodynamic
  - anaerobic
14. The normal pH range of fresh milk is \_\_\_\_\_.
- 7.3-7.6
  - 7.0-7.3
  - 6.5-6.8
  - 6.1-6.4
15. Milk with low total solids will produce what off flavor?
- malty
  - acid
  - feed
  - flat
16. Pasteurization \_\_\_\_\_ in the milk.
- destroys all the bacteria
  - destroys all the pathogens
  - both a and b
  - neither a or b
17. Mastitis can be caused by \_\_\_\_\_.
- an unclean environment
  - poor milking procedures

- c. milking equipment
- d. all of the above

18. \_\_\_\_\_ is (are) one source of development of an oxidized flavor in milk.

- a. copper or iron equipment
- b. heat
- c. hot air
- d. cold air

19. Milkstone can be removed from dairy equipment by using a(n) \_\_\_\_\_ .

- a. acid detergent
- b. caustic detergent
- c. chlorinated detergent
- d. non-foaming detergent

20. Added water to milk can be detected by measuring the \_\_\_\_\_ .

- a. titratable acidity
- b. freezing point
- c. specific heat
- d. melting point of the fat

21. Which of the following vitamins is milk sometimes fortified with?

- a. Niacin
- b. Folic acid
- c. Vitamin D
- d. Vitamin C

22. Homogenization will decrease the size of the milk's \_\_\_\_\_ .

- a. lactose crystals
- b. calcium molecules
- c. somatic cells
- d. fat globules

23. The hormone produced by the posterior pituitary which stimulates “milk letdown” is \_\_\_\_\_ .

- a. oxytocin
- b. pitressin
- c. adrenaline
- d. thyroxin

24. The legal time-temperature relationship for fluid milk using high-temperature, short-time (HTST) pasteurization is :

- a. 155F for 45 seconds
- b. 145F for 20 minutes
- c. 161F for 15 seconds
- d. 171F for 6 seconds

25. The ability of lipase in milk to attack milk fat and produce a rancid off flavor is enhanced by \_\_\_\_\_ .

- a. excessive agitation of warm raw milk
- b. poorly cleaned milk equipment
- c. exposing milk to sunlight
- d. feeding the cows moldy hay

## Problem Solving II

2010

Spring Creek dairy farm has 210 dairy cows that produced 12,600 pounds of milk on April 18, 2010. The milk was 3.67% butterfat and 3.23% protein for that day.

Fox Ridge dairy farm has 144 dairy cows that produced 8200 pounds of milk on April 18, 2010. The milk was 3.75% butterfat and 3.24% protein for that day.

1. (4) How many pounds of milk did the average cow in the Spring Creek dairy produce on April 18?
2. (5) How many pounds of protein are in the 12,600 pounds of milk of the Spring Creek dairy?
3. (5) How many gallons of milk are in the 8200 pounds of milk in the Fox Ridge dairy?
4. (8) What would be the fat percentage of the milk if the two dairies comingled their milk this day?
5. (3) How many pounds of milk would result if the two dairies comingled their milk this day?