

**NORTH CAROLINA FFA ASSOCIATION**  
**2003 DAIRY FOODS CAREER DEVELOPMENT EVENT**  
*Written Test*

1. Although milk from the cow is processed, it is not an engineered or fabricated food. Milk contains about \_\_\_\_\_ percent water.
  - A. 3.5
  - B. 13
  - C. 76
  - D. 87
  
2. Casein, a protein found only in milk, contains all the essential amino acids. It accounts for \_\_\_\_\_ percent of the total proteins in milk and is used as a standard for evaluating protein in other foods.
  - A. 62
  - B. 72
  - C. 82
  - D. 92
  
3. The Nutrition Labeling and Education Act requiring mandatory nutritional labeling was passed in \_\_\_\_\_.
  - A. 1974
  - B. 1985
  - C. 1990
  - D. 1994
  
4. When was recombinant bovine somatotroprin (rBST) approved for commercial use in the U.S.?
  - A. 1990
  - B. 1994
  - C. 1998
  - D. 2001
  
5. Approximately \_\_\_\_\_ of the calcium available in the food supply is provided by milk and milk products.
  - A. 27%
  - B. 46%
  - C. 73%
  - D. 91%

6. In adults, a calcium deficiency, along with other factors, may result in bone deterioration called \_\_\_\_\_.
  - A. osteoporosis
  - B. arthritis
  - C. scurvy
  - D. scoliosis
  
7. Which of the following milk products contains the highest amount of calcium per serving size?
  - A. Evaporated Canned Milk
  - B. Buttermilk
  - C. Swiss Cheese
  - D. Sour Cream
  
8. Which type of milk makes up 43% of fluid consumption?
  - A. Whole Milk
  - B. Low Fat Milk
  - C. Reduced Fat Milk
  - D. Fat Free Milk
  
9. How many pounds of milk were marketed in the U.S. in 2000?
  - A. 153.8 million
  - B. 876.2 million
  - C. 115.4 billion
  - D. 166.3 billion
  
10. The average milk output per cow in 2001 was \_\_\_\_\_.
  - A. 14,321 pounds
  - B. 16,598 pounds
  - C. 18,139 pounds
  - D. 20,864 pounds
  
11. During pasteurization, milk is heated to a minimum temperature of \_\_\_\_\_ for 30 minutes and then promptly cooled.
  - A. 145° F
  - B. 178° F
  - C. 200° F
  - D. 212° F
  
12. In 2002 the top state with the most milk production of 34,884 million pounds was \_\_\_\_\_.
  - A. Pennsylvania
  - B. New York
  - C. Wisconsin
  - D. California

13. Country with the highest milk production per cow is \_\_\_\_\_.
- A. United States
  - B. Sweden
  - C. Netherlands
  - D. Japan
14. Specific gravity of milk at 60 degrees is \_\_\_\_\_.
- A. 1.038
  - B. 1.036
  - C. 1.032
  - D. 1.028
15. As it comes from the cow, the solids portion of milk contains approximately \_\_\_\_\_ percent fat and 9 percent solids-not-fat.
- A. 3.7
  - B. 4.8
  - C. 8.4
  - D. 12.5
16. The whey proteins constitute about \_\_\_\_\_ percent of the protein content of milk.
- A. 13%
  - B. 18%
  - C. 23%
  - D. 87%
17. The percent change in U.S. sales of flavored milk between 2000-2001 was \_\_\_\_\_.
- A. increased by 3.7%
  - B. increased by 5.7%
  - C. decreased by 3.7%
  - D. decreased by 5.7%
18. Light cream contains not less than 18 percent milkfat, but less than \_\_\_\_\_ percent milkfat.
- A. 28
  - B. 30
  - C. 32
  - D. 34
19. In 2000, U.S. milk production reached record levels. How does this compare to U.S. milk production in 2001?
- A. decreased production in 2001 compared to 2000
  - B. increased production in 2001 compared to 2000
  - C. production remained constant between 2000 and 2001
  - D. production data is not available

20. In 2000, it was estimated that the number of milk cows in the U.S. was 9,210,000. How does this compare to the number of milk cows in the U.S. in 2001?
- A. decreased number in 2001 compared to 2000
  - B. increased number in 2001 compared to 2000
  - C. number of milk cows remained constant between 2000 and 2001
  - D. production data is not available
21. In 2001, annual milk consumption among children was \_\_\_\_\_.
- A. 8 gallons
  - B. 18 gallons
  - C. 28 gallons
  - D. 38 gallons
22. Nearly 40% of U.S. dairy products are exported to \_\_\_\_\_.
- A. Canada and Japan
  - B. China and Mexico
  - C. Japan and China
  - D. Canada and Mexico
23. The only major dairy product which on average did not see a significant rise in world prices during 2001 was \_\_\_\_\_.
- A. Whole Milk
  - B. Butter
  - C. Cheese
  - D. Sour Cream
24. This is the disintegration of the fat globules in milk in order to reduce the separation of cream. The fat globules typically are broken down by forcing the milk through a small passage at a high velocity.
- A. Standardization
  - B. Pasteurization
  - C. Homogenization
  - D. Separationing
25. What is the product that results from culturing milk and cream products with lactic acid producing bacteria, *Lactobacillus bulgaricus* and *Streptococcus thermophilus*?
- A. Cottage Cheese
  - B. Buttermilk
  - C. Sour Cream
  - D. Yogurt