2000 STATE JUNIOR 4-H DAIRY QUIZ BOWL NAME_____
QUIZ (PHASE A) TEAM_____

True/False Questions – Circle the correct answer. Each question is worth 5 points.

1. **True** **False** Macrominerals are minerals required by the body in relatively large quantities.
2. **True** **False** The abomasum is often referred to as "manyplies."
3. **True** **False** Whole milk, by definition, contains 8 grams of fat and 120 calories per cup.
4. **True** **False** The world record holder for milk production is Jane of Vernon.
5. **True** **False** Cattle with Johne's disease are usually infected soon after birth, but the first symptoms do not appear until 2 to 4 years of age.

6. **True** **False** A standard plate count is a test that measures bacterial content of raw milk to monitor milk quality.
7. **True** **False** The three basic elements contained in carbohydrates are carbon, helium, and oxygen.
8. **True** **False** The World Dairy Expo is held in Fort Atkinson, Wisconsin.
9. **True** **False** Butter must contain a minimum of 18% fat.
10. **True** **False** Warts are not contagious between calves.

11. **True** **False** The primary protein found in milk is lactose.
12. **True** **False** Tallow and lard are examples of animal fats sometimes used in dairy cattle rations.
13. **True** **False** Cyanide is a toxin found in wilted cherry tree leaves.
14. **True** **False** Ringworm is a contagious disease caused by a virus.
15. **True** **False** A polled animal is one born without horns.

16. **True** **False** Peak milk production usually occurs 2 to 3 weeks after peak feed intake.
17. **True** **False** A colostrometer is an instrument used to puncture the rumen in cases of bloat.
18. **True** **False** The common name for laminitis is founder.
19. **True** **False** Ayrshire cattle originated in Ireland.
20. **True** **False** The amount of cheese one can get from a pound of milk is most affected by the fat content of the milk.

2000 State Senior 4-H Dairy Quiz Bowl
Phase A – Written Test

Name_____
Team_____

Instructions: Circle the correct answer for true/false and multiple choice questions. Print your answer for the short answer questions. Each question is worth 5 points.

1. True or False Performance as seen through growth or milk production will be reduced the quickest through a lack of protein as compared to other nutrients.
2. True or False The major artery supplying blood to the udder is the external pudic artery.
3. Which cow is the current world record holder for milk production?
   - A. Beecher Arlinda Ellen
   - B. Bell-Jr. Rosabel - ET
   - C. City-Edge Commotion Excel
   - D. La-Foster Blstar Lucy
4. Which hormone causes milk let-down?
   - A. Oxytocin
   - B. Progesterone
   - C. Prolactin
   - D. Prostaglandin
5. Name the state that had the highest milk production per cow in 1998.

   _____

6. True or False Liquid hydrogen is used to freeze and store semen.
7. True or False The major buffer for maintaining optimum rumen pH is saliva.
8. As of January 1, 2000, how many Federal Milk Marketing Orders are in the U.S.?
   - A. 7
   - B. 11
   - C. 20
   - D. 32
9. Whole milk contains…
   - A. 0 grams of fat and 80 calories per cup.
   - B. 2.5 grams of fat and 100 calories per cup.
   - C. 5 grams of fat and 120 calories per cup.
   - D. 8 grams of fat and 150 calories per cup.
10. What is the common name for Bovine Spongiform Encephalopathy?

    _____

11. True or False A leukocyte is a white blood cell.

12. True or False One hundred percent of heifers born twin to a bull are sterile.

13. What is the name given to a negatively charged ion or particle?

    A. Acid

    B. Anion

    C. Base

    D. Cation

14. Where is the national headquarters of the American Milking Shorthorn Society located?

    A. Beloit, Wisconsin

    B. Brattleboro, Vermont

    C. Crystal Spring, Pennsylvania

    D. Reynoldsburg, Ohio

15. How much does a bushel of corn weigh?

    _____

16. True or False Louis Pasteur developed the butterfat test in 1890 that was the basis for DHIA testing.

17. True or False Colostrum contains antibodies that provide calves immunity from disease.

18. Which one of the dairy cow's four stomach compartments is known as the fermentation vat?

    A. Abomasum

    B. Omasum

    C. Reticulum

    D. Rumen

19. Corn silage has the best fermentation and preservation characteristics with minimal seepage when harvested at what percent dry matter?

    A. 25%

    B. 35%

    C. 50%

    D. 65%

20. What are the secretory cells in the mammary gland that are arranged in grape-like structures called?

    _____

21. True or False Calcium is the mineral that the dairy cow needs in the greatest quantity.

22. True or False *E. coli* is an example of an environmental mastitis causing pathogen.

23. Which of the following is a water-soluble vitamin?

    A. Vitamin A

    B. Vitamin C

    C. Vitamin D

    D. Vitamin K

24. What is the usual duration of standing heat in dairy cattle?

    A. 2 to 12 hours

    B. 5 to 15 hours

    C. 16 to 18 hours

    D. 20 to 24 hours

25. How many times per year does USDA publish bull proofs?

    _____

26. True or False The most important factor to consider in determining when to breed a heifer for the first time is her age.

27. True or False Johne's Disease is caused by the bacterium *Mycobacterium paratuberculosis*.

28. What is the U.S. legal limit for somatic cell counts in raw milk?

    A. 100,000 cells/ml

    B. 400,000 cells/ml

    C. 750,000 cells/ml

    D. 1,000,000 cells/ml

29. What is the most desirable acid produced during the ensiling process?

    A. Acetic

    B. Butyric

    C. Lactic

    D. Propionic

30. In what year did artificial insemination begin in the U.S.?

    _____

31. True or False Involution is the process of releasing an egg from the follicle on the ovary.

32. True or False Calf housing should be clean, dry, and drafty.

33. What mineral is critical for the establishment of legumes?

    A. Calcium

    B. Magnesium

    C. Phosphorus

    D. Potassium

34. Where is the North American International Livestock Exposition held?

    A. Harrisburg, Pennsylvania

    B. Louisville, Kentucky

    C. Madison, Wisconsin

    D. Memphis, Tennessee

35. What is the most costly disease in dairy cattle?

    _____

36. True or False The most effective time to treat mastitis infections is at drying off.

37. True or False The number one reason for culling in U.S. dairy herds is mastitis.

38. How many pairs of chromosomes do dairy cattle have?

    A. 21

    B. 23

    C. 24

    D. 30

39. Milk from which breed is known for its golden color?

    A. Ayrshire

    B. Brown Swiss

    C. Guernsey

    D. Jersey

40. What enzyme is used to coagulate milk when making cheese?

    _____