

Name: _____ Club/Chapter: _____

Instructions: This test consists of 50 multiple-choice questions. Answers must be recorded on your Scantron sheet in the "Exam" section. Each question is worth five (5) points for a total of 250 points possible.

1. **What vitamin may be added to feeds to aid in the prevention of ketosis?**
 - A. Niacin
 - B. Vitamin C
 - C. Vitamin D
 - D. Vitamin K
2. **What is the minimum total solids-not-fat content required in the legal definition of milk?**
 - A. 3.25%
 - B. 6.25%
 - C. 8.25%
 - D. 18%
3. **How many points are assigned to body capacity on the Dairy Heifer Scorecard?**
 - A. 10
 - B. 20
 - C. 30
 - D. 40
4. **What device allows controlled, cyclic admission of air during cleaning and sanitizing to produce slug flow conditions?**
 - A. Agitator
 - B. Air injector
 - C. Pulsator
 - D. Vacuum regulator
5. **On average, how many days are there between heat periods in dairy cattle?**
 - A. 10
 - B. 14
 - C. 21
 - D. 28
6. **Which dairy breed has the longest gestation period on average?**
 - A. Ayrshire
 - B. Brown Swiss
 - C. Guernsey
 - D. Jersey
7. **At what stage of life are cattle with Johne's disease usually infected?**
 - A. Soon after birth
 - B. 6 to 12 months old
 - C. 1 year old
 - D. 4 years old
8. **What type of fly is associated with grubs or warbles in cattle?**
 - A. Face fly
 - B. Heel fly
 - C. House fly
 - D. Stable fly
9. **What is the process that turns cream into butter?**
 - A. Churning
 - B. Clarification
 - C. Fortification
 - D. Separation
10. **According to the 2020-2025 Dietary Guidelines for Americans, how many cup equivalents of dairy are recommended in the Healthy U.S.-Style Pattern for children and adolescents ages 9 to 13 years?**
 - A. 1
 - B. 2
 - C. 3
 - D. 4
11. **How much does a bushel of wheat weigh?**
 - A. 32 pounds
 - B. 48 pounds
 - C. 56 pounds
 - D. 60 pounds
12. **What is the vessel between the milking system and the air system to limit movement of liquids and other contaminants between the two systems?**
 - A. Milk pump
 - B. Pulsator
 - C. Receiver jar
 - D. Sanitary trap

- 13. How many major breeds are recognized by the Purebred Dairy Cattle Association?**
- A. 4
 - B. 5
 - C. 7
 - D. 8
- 14. What is the place of origin of the Milking Shorthorn breed?**
- A. England
 - B. Germany
 - C. Netherlands
 - D. United States
- 15. Which of the cow's stomach compartments is the largest?**
- A. Abomasum
 - B. Omasum
 - C. Reticulum
 - D. Rumen
- 16. How many points are assigned to frame on the PDCA Dairy Cow Unified Scorecard?**
- A. 15
 - B. 20
 - C. 30
 - D. 40
- 17. What is another name for the streak canal?**
- A. Alveolus
 - B. Keratin
 - C. Teat canal
 - D. Teat cistern
- 18. What is most likely to be the most limiting nutritional requirement for the high producing dairy cow?**
- A. Energy
 - B. Minerals
 - C. Protein
 - D. Water
- 19. What is the most reliable way of knowing the nutrient content of forages?**
- A. Book values
 - B. CMT
 - C. Forage testing
 - D. Genomic testing
- 20. What is the respiratory disease that cattle often develop after being transported by truck or rail?**
- A. BRSV
 - B. IBR
 - C. Milk fever
 - D. Shipping fever
- 21. In what year did artificial insemination begin in the United States?**
- A. 1895
 - B. 1938
 - C. 1952
 - D. 1975
- 22. What is the normal temperature of an adult dairy cow?**
- A. 98.6°F
 - B. 101.5°F
 - C. 102.5°F
 - D. 105.1°F
- 23. What is the human equivalent of brucellosis?**
- A. Mad cow disease
 - B. Crohn's disease
 - C. Tuberculosis
 - D. Undulant fever
- 24. What is the number of time per minute that a pulsator opens and closes called?**
- A. Pulsation
 - B. Pulsation rate
 - C. Pulsation ration
 - D. None of the above
- 25. In what year did the number of dairy cows in the United States reach its peak?**
- A. 1900
 - B. 1945
 - C. 1965
 - D. 2000
- 26. Which body part is used as the reference point to determine the height of the udder floor?**
- A. Dew claw
 - B. Hock
 - C. Knee
 - D. Pastern

- 27. In which month is National Grilled Cheese Month observed?**
- A. April
 - B. May
 - C. June
 - D. July
- 28. What are the small projections that line the wall of the small intestine called?**
- A. Caruncles
 - B. Cotyledons
 - C. Papilli
 - D. Villi
- 29. Fluid cream products, yogurt, and manufactured products like ice cream and cottage cheese belong to which milk class?**
- A. Class I
 - B. Class II
 - C. Class III
 - D. Class IV
- 30. By definition, butter must contain a minimum of what percent fat?**
- A. 3.25
 - B. 10
 - C. 18
 - D. 80
- 31. What is the fluid by-product of cheese-making called?**
- A. Lactose
 - B. Skim milk
 - C. Whey
 - D. Greek yogurt
- 32. In what year was the plastic milk jug introduced commercially?**
- A. 1964
 - B. 1975
 - C. 1982
 - D. 1994
- 33. What measurement is most commonly used as an indicator of mastitis?**
- A. Acid degree value
 - B. Preliminary incubation count
 - C. Somatic cell count
 - D. Standard plate count
- 34. On average, what dairy breed produces the most milk per cow?**
- A. Brown Swiss
 - B. Guernsey
 - C. Holstein
 - D. Jersey
- 35. The first dairy cooperative in the U.S. was organized in what state?**
- A. Connecticut
 - B. New York
 - C. Virginia
 - D. Wisconsin
- 36. By definition, cream must contain at least what percent milk fat?**
- A. 2
 - B. 12
 - C. 18
 - D. 80
- 37. What is the hormone released prior to calving that enables the cervix to soften and stretch in preparation for expelling the calf?**
- A. Cortisol
 - B. Estrogen
 - C. Oxytocin
 - D. Relaxin
- 38. Funding for the Cooperatives Working Together (CWT) program comes from farmers who invest how many cents per hundredweight of milk sold?**
- A. 4 cents
 - B. 10 cents
 - C. 15 cents
 - D. 25 cents
- 39. What is the name of the process by which the uterus returns to normal size after calving?**
- A. Eructation
 - B. Evolution
 - C. Involution
 - D. Mastication

- 40. What is the recommended contact time for pre-dip in udder prep?**
- A. 10 to 15 seconds
 - B. 20 to 30 seconds
 - C. 45 to 60 seconds
 - D. 2 minutes
- 41. What name is given to the first few streams of milk stripped from the udder prior to milking?**
- A. Foremilk
 - B. Raw milk
 - C. Residual milk
 - D. Waste milk
- 42. Limestone is an excellent source of which mineral?**
- A. Calcium
 - B. Phosphorus
 - C. Potassium
 - D. Sodium
- 43. The National Organic Program for organic livestock production requires at least how many days on pasture during the grazing season?**
- A. 60
 - B. 120
 - C. 180
 - D. 240
- 44. What is the instrument called that is used to test the freezing point of milk to determine if water has been added?**
- A. Centrifuge
 - B. Cryoscope
 - C. Strip cup
 - D. Trocar
- 45. What is the practice of treating only cows that have an intramammary infection at drying off called?**
- A. Blanket dry cow therapy
 - B. Homeopathic therapy
 - C. Organic therapy
 - D. Selective dry cow therapy
- 46. What calving ease score should be assigned if the calving required considerable force?**
- A. 1
 - B. 2
 - C. 4
 - D. 5
- 47. Teat cup liners should generally be replaced after how many cow milkings?**
- A. 100 to 200
 - B. 500 to 600
 - C. 1,000 to 1,200
 - D. 2000 to 2,400
- 48. What fiber measure is used to predict feed intake?**
- A. Acid detergent fiber
 - B. Crude fiber
 - C. Effective fiber
 - D. Neutral detergent fiber
- 49. Approximately how many pounds of blood are pumped through the udder to produce one pound of milk?**
- A. 100
 - B. 200
 - C. 300
 - D. 400
- 50. If colostrum is pasteurized, what temperature should be used?**
- A. 140°F
 - B. 145°F
 - C. 161°F
 - D. 180°F

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