2019 Virginia FFA Milk Quality and Products Career Development Event Written Test

Name: _____

Chapter:

Instructions: This exam consists of 60 multiple-choice questions. Each question is worth two points. Choose the single best answer to each question and mark your answer on the back of your Scantron form in the "Written Exam" sections. Time limit is 40 minutes.

Production Questions

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 - A) Acute
 - B) Chronic
 - C) Clinical
 - D) Subclinical
- 2. What mineral is needed by the dairy cow in the largest quantity?
 - A) Calcium
 - B) Magnesium
 - C) Phosphorus
 - D) Potassium
 - E) Sodium

3. What is the costliest disease in dairy cattle?

- A) Acidosis
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- E) Milk fever
- 4. What is the largest cost in milk production?
 - A) Feed
 - B) Fertilizer
 - C) Insurance
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 - E) Labor
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- 6. What term is defined as management practices that protect the herd from entry of new diseases and minimizes the spread and/or adverse effects of disease in a herd?
 - A) Biosecurity
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 - C) Protocols
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- 7. What are the most limiting amino acids in dairy cattle nutrition?
 - A) Arginine and histidine
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- 9. How is the genetic makeup of a population changed?
 - A) Chance
 - B) Migration
 - C) Mutation
 - D) Selection
 - E) All of the above
- 10. How long can frozen colostrum be safely stored?
 - A) 3 days
 - B) 1 week
 - C) 1 month
 - D) 6 months
 - E) 1 year

11. What is the standard length of a DHIA record?

- A) 60 days
- B) 100 days
- C) 180 days
- D) 305 days
- E) 365 days
- 12. Which dairy breed generally produces milk with the highest fat and protein content?
 - A) Ayrshire
 - B) Brown Swiss
 - C) Guernsey
 - D) Holstein
 - E) Jersey
- 13. What term is defined as the total protein in a feed?
 - A) By-pass protein
 - B) Crude protein
 - C) Rumen degradable protein
 - D) Rumen undegradable protein
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14. What is the largest mastitis-related cost?

- A) Discarded milk
- B) Drugs
- C) Labor
- D) Reduced milk production
- E) Veterinarian
- **15.** What hormone can interfere with milk ejection when a cow becomes frightened or upset?
 - A) Adrenaline
 - B) Estrogen
 - C) Oxytocin
 - D) Prolactin
 - E) Testosterone
- 16. What is the most effective management tool to control flies on a dairy farm?
 - A) Baiting/trapping
 - B) Fly tags
 - C) Predators
 - D) Sanitation
 - E) Spraying

- 17. What is the milk-mineral deposit that can build up on milking equipment called?
 - A) Keratin
 - B) Mastitis
 - C) Milk stone
 - D) Plaque
 - E) Residual milk
- 18. Performance as seen in milk production or growth will be reduced the quickest through a lack of which nutrient?
 - A) Carbohydrates
 - B) Fat
 - C) Minerals
 - D) Protein
 - E) Water
- **19.** What is the period of pregnancy that begins at fertilization and ends at birth called?
 - A) Calving interval
 - B) Gestation
 - C) Lactation
 - D) Ovulation
 - E) Superovulation
- 20. The first commercial robotic milker was installed in 2000 in what state?
 - A) Maryland
 - B) New York
 - C) Pennsylvania
 - D) Virginia
 - E) Wisconsin
- 21. What is the recommended temperature of water for washing the bulk tank, lines, and other equipment?
 - A) 120°F
 - B) 145°F
 - C) 160°F
 - D) 190°F
 - E) 212°F
- 22. Which of the following solutions may be used as a teat dip?
 - A) Bronopol
 - B) Chlorine
 - C) Iodine
 - D) All of the above
 - E) None of the above

23. Heifers account for what percent of total farm expenses on a typical dairy farm?

- A) 5-10%
- B) 15-20%
- C) 25-30%
- D) 45-50%
- E) 55-60%
- 24. Who developed the butterfat test that was the basis of DHIA testing?
 - A) S. M. Babcock
 - B) Gail Borden
 - C) W. D. Hoard
 - D) Jay Mattison
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- 28. Limestone is an excellent source of what mineral?
 - A) Calcium
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29. What is the initial milk secreted after calving called?

- A) Colostrum
- B) Foremilk
- C) Raw milk
- D) Residual milk
- E) Transition milk
- 30. On average, how many days are there between heat periods in dairy cattle?
 - A) 7
 - B) 14
 - C) 21
 - D) 28
 - E) 35

Marketing Questions

31. What is the main reason that antibiotics are not allowed in milk for human consumption?

- A) Antibiotics are not a natural part of milk.
- B) Bacteria may become resistant to antibiotics.
- C) Milk that contains antibiotic residues is not good for cheesemaking.
- D) Some people are allergic to antibiotics.
- E) None of the above
- 32. How much per hundredweight of milk sold is deducted from every dairy farmer's milk check to pay for promotion and research through the Dairy Checkoff?
 - A) \$0.04
 - B) \$0.10
 - C) \$0.15
 - D) \$0.25
 - E) \$1.00

33. What state has the most organic dairy cows?

- A) California
- B) Minnesota
- C) New York
- D) Pennsylvania
- E) Vermont

34. The batch method of pasteurizing milk heats milk to 145°F for how long?

- A) 2 seconds
- B) 15 seconds
- C) 30 seconds
- D) 15 minutes
- E) 30 minutes
- 35. The ____ content of milk most affects the amount of cheese one can get from a unit of milk.
 - A) Fat
 - B) Lactose
 - C) Mineral
 - D) Protein
 - E) Vitamin
- 36. What is the largest milk marketing cooperative in the United States?
 - A) California Dairies, Inc.
 - B) Cobblestone Milk Cooperative
 - C) Cooperative Milk Producers
 - D) Dairy Farmers of America
 - E) Maryland-Virginia Milk Producers
- 37. What state produces the most milk per person?
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- 38. Which of the following is an example of a cultured dairy product?
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 - C) Yogurt
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- 39. In what year was the plastic milk jug introduced?
 - A) 1884
 - B) 1924
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- 40. Grade A raw milk must be cooled to ____ or less within 2 hours after milking.
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- 43. How many Federal Milk Marketing Orders now exist following the addition of California in 2018?
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- 44. Which of the following is not a requirement of organic dairy production?
 - A) Artificial insemination may not be used to breed cows and heifers.
 - B) No antibiotics may be administered.
 - C) No hormones may be used to promote growth.
 - D) No mammalian or poultry by-products may be used in feed.
 - E) One hundred percent of the feed must be organic.

45. What is the primary focus of the Cooperatives Working Together (CWT) program?

- A) Animal well-being
- B) Herd retirement programs
- C) Leadership development for cooperative members
- D) Providing export assistance for dairy products
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- 46. What is the name of the document that establishes the standards for Grade A milk?
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- 50. The top 50 milk cooperatives accounted for what percent of milk marketed in the U.S. in 2017?
 - A) 51%
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- **51.** Pigmented milk cartons are used to prevent what off-flavor in milk?
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