

## Senior Round 5

Phase C      20 Questions      Correct answers are worth 15 points each.

**Both teams are in the room for Phase C. The first contestant to signal will answer the question within 5 seconds after being acknowledged by the moderator. Failure to do so will cost that team 10 points. Any contestant answering a question without being acknowledged by the moderator will lose 10 points. If an answer is incorrect, members of the other team will have the opportunity to answer the question without having it reread except for true/false, either or and yes or no type questions. If an answer is given in these types of questions, the question will be replaced with a tie breaker question, and given to the other team. No points are deducted for giving an incorrect answer. Team members are not allowed to discuss the answers in this phase. No partial credit is available in Phase C, except for bonus questions. If neither team can offer an answer to the question within 10 seconds, the moderator will give the answer and the question will be dropped but neither team will forfeit points.**

1. When formulating rations, nitrogen is a major consideration for dairy nutritionists. Which one of the following is the primary source of nitrogen that is added to the ration?
  - a. Limestone
  - b. Fat
  - c. Water
  - d. Crude protein

ANSWER: d. crude protein

2. Which mycotoxin is of major concern because it is commonly found in cattle feed and is a known, potent carcinogen?
  - a. Aflatoxin
3. Which one of the following is the most common bacterium that causes chronic mastitis?
  - a. E. Coli
  - b. Staph. Aureus
  - c. Klebsiella
  - d. Strep. Uberis

ANSWER: B. Staph Aureus

4. In the dairy cow's reproductive system, which one of the following does the ovary produce?
  - a. Testosterone
  - b. Cortisol
  - c. Estrogen
  - d. Lactose

ANSWER: c. estrogen

5. What hormone is secreted by the corpus luteum?
  - a. Progesterone
6. In reference to dairy cows or calves, what is meant by the mortality rate?
  - a. Number of dead animals
7. Milking unit inflations typically have a useful life of how many milkings?
  - a. 600
  - b. 1200
  - c. 1800
  - d. 2400

ANSWER: b. 1200

8. What is the name of the contractile tissue that, when stimulated by oxytocin, forces milk out of the alveoli in the mammary gland?
  - a. Myoepithelium (also accept myoepithelial cells)

9. When discussing animal welfare, what does the acronym FARM stand for?
  - a. Farmers Assuring Responsible Management
10. In the reproductive system of a cow what produces estrogen?
  - a. Ovary (follicle)
11. What gas is produced and released during Phase 1 of silage production (aerobic phase)?
  - a. Carbon Dioxide (CO<sub>2</sub>)
12. What is the name of the category on the new PDCA Dairy Cow Unified Score Card that combines body capacity and dairy character?
  - a. Dairy Strength
13. Which one of the following is the term for the sum total of all an individual organism's genes?
  - a. Organelle
  - b. Genome
  - c. Chromosome

ANSWER: b. genome

14. During which season is milk in the greatest demand?
  - a. Fall
15. Which one of the following refers to a bull's offspring?
  - a. Grandsire
  - b. Litter
  - c. Progeny
  - d. Flock

ANSWER: c. Progeny

16. What causes ringworm?
  - a. Fungus
17. What group of lactating cows are we referring to with the term primiparous?
  - a. First lactation cows
18. What does the enzyme lipase do during digestion?
  - a. Breaks down protein
  - b. Breaks down carbohydrates
  - c. Breaks down fat (lipids)

ANSWER: c. breaks down fat (lipids)

19. How many pairs of chromosomes do dairy cattle have?
  - a. 30
20. In reference to environmental law, what does CAFO stand for?
  - a. Concentrated Animal Feeding Operation