

**2016 Senior Dairy Quiz Bowl Questions**

**Round 06**

**Phase B**

**5 Questions**

**Correct answers are worth 10 points each.**

**Only the team being asked the questions is to be in the room. Each team will be asked these 5 questions. Answers are to be given by a team captain, but assistance may come from any team member. A question may be repeated only once. Answers must be started within 20 seconds. Partial credit may be given at the discretion of the judges. After one team has been questioned, the other team will enter the contest room and be asked the same 5 questions.**

**1. What term is defined as the study of nucleotide sequences in the chromosomes of an animal to determine its genetic potential?**

- a) geneology      b) genomics      c) endocrinology      d) metabolics

ANS: b) genomics

**2. In reference to milk processing, what is the “make allowance”?**

- a) income over feed costs      b) somatic cell counts  
c) the cost of turning milk into cheese      d) amount of waste milk from treated cows

ANS: c) the cost of turning milk into cheese

**3. Which one of the following is often responsible for a low milk fat test?**

- a) feeding hay      b) feeding cottonseed hulls      c) overfeeding crude protein  
d) low level of “effective fiber” in the ration

ANS: d) low level of “effective fiber” in the ration

**4. Tarsal hygroma is the medical name for what common cow ailment?**

- a) acidosis      b) dehydration      c) metritis      d) swollen hock

ANS: d) swollen hock

**5. Which one of the following best describes the lining of the rumen?**

- a) honeycomb      b) covered with papillae for nutrient absorption  
c) a mucous covered lining to protect it from the hydrochloric acid that is secreted

ANS: b) covered with papillae for nutrient absorption

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. What hormone initiates and maintains lactation?

ANS: Prolactin

2. At the end of a Holstein animal registration name, what do the letters E-T stand for?

ANS: Embryo Transfer

3. Dairy cattle are most comfortable within which of the following temperature ranges?

a) 50 to 55 degrees F      b) 70 to 75 degrees F      c) 30 to 35 degrees F

ANS: a) 50 to 55 degrees F

4. Which of the following is the term for a large and complex protein material that is capable of causing disease and that reproduces only inside a host cell?

a) Bacteria      b) Protozoa      c) Virus      d) Salmonella

ANS: c) Virus

5. What term describes the space that an animal considers its area of safety?

ANS: flight zone

6. A deficiency of Vitamin E in the cow's diet can cause an off-flavor to develop in milk. What is the name of this off-flavor?

ANS: Oxidized flavor

**7. What is the common name for the metabolic disorder “parturient paresis”?**

ANS: Milk fever (or hypocalcemia)

**8. What is the name of the contractile tissue that, when stimulated by oxytocin, forces milk out of the alveoli in the mammary gland?**

ANS: Myoepithelium (also accept myoepithelial cells)

**9. If the milking machine milk to rest pulsation ratio is set at 55:45, what percent of the time is the inflation open?**

ANS: 55%

**10. In the last few years, which one of the following sections of the U.S. has seen the greatest percentage decline in numbers of dairy farms?**

a) Northeast            b) Southeast            c) Southwest            d) West

ANS: b) Southeast

**11. What is the term for the fetal membrane, which surrounds the developing calf?**

ANS: Amnion

**12. Carbon, hydrogen and \_\_\_\_\_ are the three basic elements contained in carbohydrates.**

ANS: oxygen

**13. In reference to dairy cattle reproduction, what is the term for a “fertilized egg”?**

ANS: zygote

**14. What is the name of the category on the updated PDCA Dairy Cow Unified Scorecard that replaced body capacity and dairy character?**

ANS: Dairy Strength

**15. What are the two most limiting amino acids for milk production?**

ANS: methionine and lysine

**16. When corn silage ferments properly, what happens to the pH?**

ANS: it decreases

**17. When comparing bulls for artificial insemination, what does “ERCR” stand for?**

ANS: Estimated **R**elative **C**onception **R**ate

**18. What does the enzyme cellulase break down in the dairy cow’s digestive system?**

ANS: cellulose

**19. Which of the following is a fat soluble vitamin?**

a) Vitamin D            b) Vitamin B12            c) Niacin            d) Vitamin C

ANS: a) Vitamin D

**20. Regarding energy metabolism in an early lactation dairy cow, what is the term for when she is losing body weight?**

ANS: Negative energy balance

**Bonus Questions**      Each bonus question is worth 20 points.

**Bonus questions may be earned in the toss-up round. To receive a bonus question, 3 different team members must correctly answer the toss-up questions. Bonus questions are not passed to the other team, nor are points deducted for an incomplete or incorrect answer to the question. Bonus question will be asked whenever 3 team members have answered toss-up questions correctly with the count kept individually for both teams within a match. Eligibility for bonus questions does not carry over to another match. The answers must come from the team captain but assistance can come from the other team members. Only the number or answers required by the bonus question will be accepted. Example: If the bonus has a four-part answer - the first four answers given by the team will be accepted. Answers to a bonus question must start within 20 seconds and be completed within 60 seconds.**

**1. Dairy cattle are most comfortable when the environmental temperature is within a certain range. What is this temperature range called for dairy cattle?**

**a) temperature-humidity index      b) thermo-neutral zone      c) *in vitro* thermal range**

ANS: b) thermo-neutral zone

**2. What is the term used to describe a group of dairy producers such as Maryland-Virginia Milk Producers who join together to market their milk?**

ANS: a Cooperative

**3. What is the technical term for the class of chemicals used to kill internal parasites in cattle?**

ANS: Anthelmintics (also accept dewormers)