

2010 Senior Dairy Quiz Bowl Questions

Round 04

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. Which one of the following is the typical dimension for a free stall for Holstein cows?

- a) 6 feet long and 3 feet wide      b) 7 feet long and 4 feet wide  
c) 9 feet long and 4 feet wide

ANS: b) 7 feet long and 4 feet wide

2. Whether from natural mating or from artificial insemination, approximately how long do sperm live in the cow's reproductive tract?

- a) 2 hours      b) 6 hours      c) 10 hours      d) 24 hours

ANS: d) 24 hours

3. The Net Energy requirement of lactating cows is closest to:

- a) .75 Mcal/lb      b) 1.2 Mcal/lb      c) 2.0 Mcal/lb

ANS: a) .75 Mcal/lb

4. Anionic salts are often fed to prevent milk fever in dairy cows. Which of the following is the best time to feed them?

- a) during the 3 weeks after calving      b) during the 2 weeks before calving  
c) at the beginning of the dry period

ANS: b) during the 2 weeks before calving

5. What vitamin continues to be a superstar for its multitude of positive benefits? It boosts the immune system, helps with secretion and regulation of insulin by the pancreas, regulates heart and blood pressure, improves muscle strength and brain activity and is long known for preventing rickets.

ANS: Vitamin D

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 is secreted by the corpus luteum?

ANS: progesterone

2. What does P.I. stand for in reference to milk quality testing?

ANS: Preliminary Incubation

3. Biotin, in addition to increasing milk production, has a positive effect on which one of the following parts of a dairy cow?

a) lungs      b) teats      c) udder      d) hoof

ANS: d) hoof

4. Cryptosporidiosis (crypto) affects this part of the digestive system:

a) reticulum      b) rumen      c) small intestine      d) omasum

ANS: c) small intestine

5. What do we term a completely hydrogenated fat that contains no double bonds?

a) unsaturated fat      b) vegetable oil      c) saturated fat

ANS: c) saturated fat

**6. Which one of the following is a sugar?**

- a) casein      b) phenylalanine      c) omega-3      d) lactose

ANS: d) lactose

**7. Which one of the following normally occurs first during a lactation cycle:**

- a) peak feed intake    b) body weight gain    c) peak milk production

ANS: c) peak milk production

**8. What is the name of the gas that is formed in anaerobic digesters?**

ANS: Methane

**9. Which one of the following refers to a bull's offspring?**

- a) grandsire      b) litter      c) progeny      d) flock

ANS: c) progeny

**10. A deficiency of what mineral has been associated with retained fetal membranes (RFM) in cows and white muscle disease in calves?**

ANS: selenium

**11. To maintain profit margins, a dairy farmer should be monitoring and making decisions based on the herd's IOFC. What do the initials IOFC stand for?**

ANS: Income Over Feed Costs

**12. Which one of the following is the approximate percentage of dairy calves born in the U.S. that are bulls?**

- a) 42%      b) 52%      c) 62%

ANS: c) 52%

**13. What is the predominant acid in anaerobically fermented corn silage?**

ANS: lactic acid (also accept lactate)

**14. What metabolic disease is indicated when the cow goes off feed and there is a noted smell of acetone on the breath?**

ANS: Ketosis

**15. 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)

**16. In addition to pneumonia, what is the other leading cause of death in young calves?**

ANS: Scours (also accept diarrhea)

**17. What percentage of nitrogen do most proteins contain?**

a) 12%      b) 16%      c) 20 %      d) 24%

ANS: b) 16%

**18. If a herd's conception rate is 50%, what percentage of the cows should be pregnant after two services?**

a) 25%      b) 50%      c) 75%      d) 80%

ANS: c) 75%

**19. What is the term for the release of an egg from a follicle?**

ANS: Ovulation

**20. What is the name of the absorptive tissue that lines the small intestine?**

ANS: Villi

**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. One of your recently fresh cows is ill. She has been receiving a high grain, low roughage diet. The consistency of the small amount of manure she produces is "putty-like". Your veterinarian detects a "pinging" sound when using his stethoscope. What is the most likely diagnosis?**

ANS: Left Displaced Abomasum (also accept LDA; DA; or displaced abomasum)

**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. Predicted transmitting ability (PTA) for milk is:**

- a) a method of comparing bulls of different breeds**
- b) a within breed comparison of a bull's offspring for milk**
- c) the increased dollar value of a bull's offspring's milk**

ANS: b) a within breed comparison of a bull's offspring for milk