

2010 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 is the term for how well cows convert feed into milk? This is usually expressed as pounds of milk produced per pound of feed consumed.

- a) income over feed cost b) feed efficiency c) metabolic requirement

ANS: b) feed efficiency

2. 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

3. Which one of the following organisms is responsible for a contagious form of mastitis?

- a) *Streptococcus uberus* b) *Klebsiella pneumoniae* c) *Staphylococcus aureus*
d) *Escherichia coli*

ANS: c) *Staphylococcus aureus*

4. What are the genes called that occupy corresponding loci in homologous chromosomes but affect the same character in different ways?

- a) RNA b) oocytes c) spermatozoa d) alleles

ANS: d) alleles

5. Bovatec® and Rumensin® are ionophores that are included in dairy heifer diets. One of their functions is to increase the production of a certain volatile fatty acid (VFA) in the rumen. Which one of the following is the name of this volatile fatty acid?

- a) acetate b) propionate c) butyrate d) lactate

ANS: b) propionate

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 is the name of the toxic substance that is often present in frost-damaged sorghum?

ANS: Prussic Acid (also accept hydrocyanic acid)

2. Where does fertilization of the ova take place?

ANS: Oviduct

3. When comparing fertility, which of the following are usually the most fertile?

- a) aged cows b) second lactation cows d) heifers

ANS: d) heifers

4. What does CLA stand for in reference to milk composition?

ANS: Conjugated Linoleic Acid

5. Which of the following has the greatest population of dairy cows?

- a) United States b) France c) Denmark d) India

ANS: d) India

6. During which season of the year is Vitamin D needed from the diet in the greatest amounts by humans?

- a) Spring b) Summer c) Fall d) Winter

ANS: d) Winter

7. How many pounds does a bushel of shelled corn weigh?

- a) 26 lb b) 42 lb c) 56 lb d) 65 lb

ANS: c) 56 lbs

8. What is the name of the food byproduct that is recovered during the making of cheese?

ANS: Whey

9. Which one of the following organisms is responsible for Johnes disease?

- a) *E. coli* b) mycoplasma c) Mycobacterium paratuberculosis

ANS: c) Mycobacterium paratuberculosis

10. In what part of the digestive tract are IgG's absorbed into the bloodstream in the newborn calf?

ANS: small intestine

11. How many pairs of chromosomes do dairy cattle have?

ANS: 30

12. What is the precursor for Vitamin A?

ANS: Beta-carotene (also accept carotene)

13. The blister-like structure on the ovary that contains the egg before ovulation is called the:

- a) cervix b) corpuscle c) zygote d) follicle

ANS: d) follicle

14. What is the standard lactation length (in days) on DHIA records?

ANS: 305 days

15. Which one of the following most closely describes leukocytes that can be found in milk?

- a) red blood cells b) alveoli c) myoepithelial cells d) somatic cells

ANS: d) somatic cells

16. Which of the following is the protein hormone that is associated with ovulation?

- a) cortisol b) adrenaline c) somatotropin d) LH

ANS: d) LH

17. What is removed from a feed when we determine its dry matter content?

ANS: water

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

- a) it should stay the same b) it decreases c) it increases

ANS: b) it decreases

19. Brucellosis in cattle can be contracted by humans. What is the human version of this disease called?

ANS: Undulant fever

20. Which one of the following is released into the bloodstream when a dairy cow is frightened?

- a) oxytocin b) formalin c) FSH d) adrenaline

ANS: d) adrenaline

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. Which of the following can happen to a dairy cow if we do not feed enough “effective fiber” in the ration?

- a) founder b) low milk fat test c) acidosis d) all of the above

ANS: d) all of the above

2. What is the life cycle for a fly to grow from an egg to an adult?

- a) 100 days b) 50 days c) 10 days d) 5 days

ANS: c) 10 days

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

ANS: Embryo Transfer