

2011 Senior Dairy Quiz Bowl Questions

Round 01

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. In the nursing calf, what directs milk from the esophagus past the rumen and directly into the omasum?

ANS: esophageal groove

2. What is another name for an examination called a post-mortem exam or autopsy that can help in determining an animal's cause of death?

ANS: necropsy

3. What is the more common name for "ruminal tympany"?

ANS: bloat

4. In reference to milk processing, what describes "the cost of turning milk into cheese"?

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|---------------------------|---|
| a) income over feed costs | b) "make allowance" |
| c) somatic cell counts | d) amount of waste milk from treated cows |

ANS: b) "make allowance"

5. What is the term for the fetal membrane, which immediately surrounds the developing calf?

ANS: Amnion

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. In dairy cows, glucose can be formed from which volatile fatty acid produced in the rumen?

- a) acetate b) propionate c) butyrate

ANS: b) propionate

2. Vitamin D helps to prevent what nutritional disorder in calves?

ANS: rickets

3. In genetics, units of inheritance are called:

- a) chromosomes b) nucleus c) genes d) mitochondria

ANS: c) genes

4. What part of the cell is known as the powerhouse of the cell because of the amount of energy produced in this part?

- a) villi b) cell membrane c) mitochondrion (or mitochondria)

ANS: a) mitochondrion (or mitochondria)

5. In a dairy cow, what is the name of the thick-walled fibrous tube that serves as a gateway between the vagina and the uterus?

ANS: cervix

6. What is the most desirable acid produced during corn silage fermentation?

ANS: lactic acid

7. What is the name of the by-product that results from the cheese manufacturing process?

ANS: whey

8. What test did Dr. Babcock develop that was the basis for DHIA testing?

a) milk protein test b) milk fat (butterfat) test c) cryoscope test d) MUN test

ANS: b) milk fat (butterfat) test

9. What term describes the duration of light that an animal is exposed to in a day?

a) photosynthesis b) photoperiod c) photolumination

ANS: b) photoperiod

10. When is it most efficient for a dairy cow to regain body condition?

a) in early lactation b) in the first month after calving
c) during the dry period d) in late lactation

ANS: d) in late lactation

11. What is the name of the cow-side test that uses a four-compartment paddle and a blue reagent to test a sample of milk from each quarter of the udder?

ANS: CMT test (California Mastitis Test)

12. In addition to ammonia and carbon dioxide, what gas with the chemical structure CH₄ is produced in the rumen?

ANS: methane

12. What are zoonoses?

ANS: Diseases and infections that can be transmitted between animals and humans

13. What is the process called in which the udder tissue reverts to a non-milk producing state after drying off?

a). transformation b)revolution c) maturation d) involution

ANS: d) involution

14. In a cow's digestive system, which compartment of the stomach is responsible for squeezing fluid out of the digesta?

ANS: omasum

15. What is the name of the contractile tissue that when stimulated by oxytocin forces milk out of the alveoli?

ANS: myoepithelium (myoepithelial cells)

16. What does the enzyme lipase do during digestion?

a) breaks down protein b) breaks down carbohydrates c) breaks down fat (lipids)

ANS: c) breaks down fat (lipids)

17. What effect does increasing the effective fiber in a cow's diet have on production of saliva?

ANS: it increases saliva production

18. Where is the embryo placed during embryo transfer?

ANS: uterine horn

19. What group of lactating cows are we referring to with the term primiparous?

ANS: first lactation cows

20. What part of the cow's back lies between the loin and the tail head?

ANS: Rump

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. Chromosomes are found in what part of the cell?

ANS: nucleus

2. Acidosis typically affects which of one a cow's stomach compartments?

ANS: rumen

3. The "Weaver" gene is a deleterious recessive gene most commonly associated with which dairy breed?

ANS: Brown Swiss