

2013 Senior Dairy Quiz Bowl Questions

Round 05

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 most common bacterium that causes chronic mastitis?

- a) E. coli b) Staph. aureus c) Klebsiella d) Strep. Uberis

ANS: b) Staph. Aureus

2. 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

3. Which of the following minerals is a cation that contributes to the dietary cation-anion difference?

- a) iodine b) calcium c) potassium d) chlorine

ANS: c) potassium

4. What is the term for a substance that, when introduced into the body, brings about an immune response by a specific antibody?

- a) immunoglobulin b) antioxidant c) antigen d) hormone

ANS: c) antigen

5. What is the cause of "lactose intolerance" in people?

ANS: Lack of the enzyme "lactase" in the small intestine

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 compartment of the ruminant stomach has a mucus lining to protect the surface from hydrochloric acid (HCL)?

ANS: abomasum

2. 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)

3. What is the name of the toxic pigment that can be found in whole cottonseed?

ANS: gossypol

4. Which professional sports league is partnering with the dairy checkoff to promote child nutrition and fitness?

ANS: National Football League (NFL)

5. What does "polled" mean?

ANS: naturally without horns

6. Which of the following terms refers to enteritis in the neonatal calf ?

a) brucellosis b) scours c) pneumonia d) acetonemia

ANS: b) scours

7. Which of the following is not a legume:

- a) soybeans b) lespedeza c) red clover d) rye

ANS: d) rye

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

ANS: Scours (also accept diarrhea)

9. What is the term used to describe the physical characteristics and performance of an individual?

ANS: Phenotype

10. Beta-carotene is the precursor for which vitamin?

ANS: Vitamin A

11. Why is lignin a problem in forages?

ANS: lignin is not digestible by the dairy cow

12. Which one of the following is the approximate gestation length for a dairy cow?

- a) 21 days b) 343 days c) 150 days d) 283 days

ANS: d) 283 days

13. What does "stillbirth" or "stillborn" mean?

ANS: a calf that is born dead

14. Anionic salts are sometimes fed 2 weeks before calving to prevent a certain metabolic disease in dairy cows. What is the name of this metabolic disease?

ANS: milk fever (also accept parturient paresis or hypocalcemia)

15. Which group of two of the following contains 4 kilocalories of energy in one gram of each nutrient?

- a) protein and carbohydrate b) protein and fat c) carbohydrate and fat

ANS: a) protein and carbohydrate

16. What percentage of nitrogen do most proteins contain?

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

ANS: b) 16%

17. The metabolic disorder “grass tetany” is caused by a deficiency of this mineral especially when cows are grazing lush pasture. What is this mineral?

ANS: Magnesium

18. The disease “Undulant Fever” in humans is the same as what disease in cattle?

ANS: Brucellosis

19. Write this down: Compute your score (using a 50-point maximum) where the official placing is 1-2-3-4 with cuts of 2-2-8 and your placing is 1-2-4-3.

ANS: 42

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

ANS: 305 days

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 one of the following is likely to happen when we feed too much crude protein in the ration?

- a) DA (displaced abomasum) b) fatty liver c) acidosis
d) increase in nitrogen excretion to the environment**

ANS: d) increase in nitrogen excretion to the environment

2. In the dairy cow, where are B-complex vitamins and Vitamin K produced?

- a) kidney b) ovary c) rumen**

ANS: c) rumen

3. When a cow is superovulated and the resulting developing embryos are transferred to unrelated recipient cows, the calves that are born will be:

- a) identical b) unrelated c) full siblings**

ANS: c) full siblings