

2008 Junior Dairy Quiz Bowl Questions

Round 03

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 the process where, in the presence of sunlight, chlorophyll-containing plants convert carbon dioxide and other elements into simple carbohydrates with oxygen also being produced?

ANS: Photosynthesis

2. During digestion, which one of the following is an enzyme that functions to break down fat (or lipids)?

a) peptidase b) lipase c) amylase d) lactase

ANS: b) lipase

3. Which of the following are the amino acids considered to be first limiting or co-limiting for milk protein synthesis?

a) Leucine and Tryptophan b) Valine and Arginine c) Lysine and Methionine

ANS: c) Lysine and Methionine

4. In a dairy cow, which of the following normally occurs second during the lactation cycle, "peak feed intake" or "peak milk production"?

ANS: Peak feed intake

5. What is the name of the substance in a semen tank that is used to freeze semen straws?

a) liquid oxygen b) liquid carbon dioxide c) liquid helium d) liquid nitrogen

ANS: d) liquid nitrogen

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 disease caused by a deficiency of Vitamin D?

ANS: Rickets

2. Which one of the following is the main reason why you should keep newborn calves separated from each other?

- a) to reduce fighting among the calves
- b) to prevent transmission of disease
- c) to reduce labor costs

ANS: b) to prevent transmission of disease

3. Which one of the following is the reason that we should we give a dairy heifer a special magnet that will stay in her reticulum?

- a) to help prevent ketosis
- b) to help prevent metritis
- c) to help prevent “hardware disease”

ANS: c) to help prevent “hardware disease”

4. Which one of the following is the scientific term for the product Rumensin?

- a) monensin
- b) decoquinate
- c) lasalocid
- d) lactoferrin

ANS: a) monensin

5. Which of the following is often used as a source of calcium in dairy cattle rations?

- a) monensin b) Vitamin C c) sodium selenite d) calcitic limestone

ANS: d) calcitic limestone

6. Grade A milk that is used for fluid consumption is classified into which of the following classes?

- a) Class 1 b) Class 2 c) Class 3 d) Class 4

ANS: a) Class 1

7. How many points are allotted for body capacity on the PDCA Dairy Cow Unified Score Card?

ANS: 10

8. What is the name of the feed component found in plant cell walls that is not digestible by the cow?

ANS: Lignin

9. Which one of the following should be part of the milking protocol to help prevent mastitis?

- a) keeping the milk in the bulk tank below 38° F b) teat dipping
c) using artificial insemination

ANS: b) teat dipping

10. Which one of the following is a class of immunoglobulins (or antibodies)?

- a) FSH b) IgG c) CLA

ANS: b) IgG

11. On the PDCA Dairy Cow Unified Score Card, how many points are assigned to the Frame category?

- a) 10 b) 15 c) 20 d) 40

ANS: b) 15

12. In the process of artificial insemination (A.I.) on a dairy cow, what section of the reproductive tract does the inseminating rod pass through before the semen is deposited?

- a) cervix b) fallopian tubes c) oviduct d) uterine body

ANS: a) cervix

13. In a dairy cow, which of the following is the normal range in the length for the estrous cycle?

- a) 5 to 10 days b) 18 to 24 days c) 35 to 40 days

ANS: b) 18 to 24 days

14. Which one of the following cotton feedstuffs is lowest in crude protein?

- a) cottonseed meal b) whole cottonseed c) cottonseed hulls

ANS: c) cottonseed hulls

15. In reference to DHIA records, what is significant about the factor 305 days?

ANS: 305 days is the standardized lactation length

16. Which one of the following describes the function of the Cooperatives Working Together (CWT) program?

- a) an international program used to market whey protein
b) a national dairy farmer-funded program that is used to help stabilize milk prices
c) a state-wide program that addresses the cost of dairy feeds

ANS: b) a national dairy farmer-funded program that is used to help stabilize milk prices

17. The disease Cryptosporidiosis (“Crypto”) in calves is caused by a protozoan parasite. Which one of the following sections of the digestive system does “Crypto” primarily affect?

- a) esophagus b) small intestine c) rumen d) reticulum

ANS: b) small intestine

18. Which of the following is the main component of adipose tissue?

- a) protein b) carbohydrate c) minerals d) fat

ANS: d) fat

19. The DRMS is located in Raleigh. What does DRMS stand for?

ANS: Dairy Records Management Systems

20. Which one of the following describes soybean hulls and corn gluten feed.

a) forages b) bentonites c) by-product feeds

ANS: c) by-product feeds

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 six major dairy breeds originated in the United States?

ANS: None of the major dairy cow breeds originated in the United States

2. Which of the following causes Blackleg in cattle?

a) a virus b) a fungus c) a bacterium

ANS: c) a bacterium

3. What do the initials NDF stand for on a feed analysis report?

ANS: Neutral Detergent Fiber