

2008 Junior Dairy Quiz Bowl Questions

Round 02

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. You take a sample of milk from your bulk tank and test it using the Delvotest or the Penzyme test. Which one of the following are you testing the milk for?

- a) milk fat percentage b) milk true protein content c) antibiotics**

ANS: c) antibiotics

2. Which one of the following vitamins is fat-soluble?

- a) niacin b) thiamin c) Vitamin C d) Vitamin K**

ANS: d) Vitamin K

3. Which one of the following is the name of the condition that can exist in a cow after calving when an excessive amount of lymph fluid accumulates between the skin and the secretory tissue of the udder?

- a) bloat b) ketosis c) metritis d) udder edema**

ANS: d) udder edema

4. Which of the following is the primary reason that colostrum from older cows is normally higher in antibodies?

- a) older cows produce more milk b) older cows have given birth to more calves
c) older cows have had more exposure to disease and more development of antibodies**

ANS: c) older cows have had more exposure to disease and more development of antibodies

5. What is the name of the test, developed at the University of Wisconsin, that is used to measure the milk fat (butterfat) content in milk.

ANS: Babcock test

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 small projections that line the wall of the small intestine that function to absorb nutrients?

ANS. Villi

2. What is the term used to describe a heifer that is too fat?

ANS: Overconditioned

3. Which one of the following is a true fat molecule that contains glycerol and three fatty acids?

a) glycogen b) apoprotein c) mitochondria d) triglyceride

ANS: d) triglyceride

4. A deficiency of the trace mineral selenium has been associated with this disease in calves:

a) enterotoxemia b) white muscle disease c) cryptosporidiosis

ANS: b) white muscle disease

5. Which one of the following is the proper name for the condition known as milk fever?

a) mastitis b) parturient paresis c) founder d) laminitis

ANS: b) parturient paresis

6. Which of the following describes “the process of flushing fertilized eggs from donor cows and implanting them in recipient cows”?

- a) gestation b) artificial insemination c) embryo transfer d) ultrasound imaging

ANS: c) embryo transfer

7. On a DHIA record, which of the following does days to first service refer to?

- a) number of days dry
b) number of days open
c) the number of days from calving until first breeding date

ANS: c) the number of days from calving until first breeding date

8. Which one of the following is the name of the section of a cow's back located between the chine and the rump?

- a) chine b) thurl c) rump d) loin

ANS: d) loin

9. What is the name of the organization in North Carolina that provides the majority of the funding for the State 4-H Dairy Youth Program activities and events?

ANS: North Carolina Dairy Youth Foundation

10. What is the name of the test conducted on milk samples as a screening test for brucellosis?

ANS: “Ring” test

11. Which one of the following ranges is closest to the total ration crude protein requirement for early lactation cows?

- a) 30 to 32% b) 16 to 18% c) 10 to 12% d) 6 to 8%

ANS: b) 16 to 18%

12. Which one of the following best describes the main function of the sphincter muscle located in the teat end of a dairy cow?

- a) it is a major secretory tissue for milk production
- b) it provides support for the median suspensory ligament
- c) it keeps the teat end closed and helps prevent organisms from entering the udder

ANS: c) it keeps the teat end closed and helps prevent organisms from entering the udder

13. Ionophores are feed additives that have been shown to increase feed efficiency and body weight gain in heifers. Which of the following are classified as ionophores?

- a) selenium and biotin
- b) sodium bicarbonate and magnesium oxide
- c) Rumensin and Bovatec

ANS: c) Rumensin and Bovatec

14. Which one of the following compartments of the ruminant stomach functions in a similar manner as the human stomach?

- a) Rumen
- b) Reticulum
- c) Omasum
- d) Abomasum

ANS: d) Abomasum

15. In the udder of a lactating dairy cow, which of the following is the function of the myoepithelium (or myoepithelial cells)?

- a) produces milk protein
- b) produces lactose
- c) prevents mastitis
- d) contractile tissue that functions to force milk out of the alveoli

ANS: d) contractile tissue that functions to force milk out of the alveoli

16. Which of the following describes a completely hydrogenated fat that contains no double bonds?

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

ANS: b) saturated fat

17. On a milking machine, if the milk to rest pulsation ratio is set at 60:40, what percent of the time is the inflation open?

ANS: 60%

18. Which of the following are the two primary gases produced in the rumen?

- a) oxygen and carbon dioxide b) methane and oxygen
c) methane and carbon dioxide

ANS: c) methane and carbon dioxide

19. In reference to digestion and metabolism, which one of the following best describes Beta hydroxybutyrate?

- a) a protein b) a ketone body c) a mastitis pathogen d) hardware disease

ANS: b) a ketone body

20. In North Carolina, which one of the following is a weather-related management issue that has a great effect on milk production, especially during the summer?

- a) scours b) acidosis c) rainfall d) heat stress

ANS: d) heat stress

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. How many servings of dairy products per day are recommended for people in the USDA food pyramid guidelines?

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

ANS: c) 3

2. When referring to a dairy cow diet, what do the letters TMR stand for?

ANS: Total Mixed Ration

3. T/F

Because it is not organic in composition, sand is an excellent choice for bedding in free stalls.

ANS: True