

2007 Junior Dairy Quiz Bowl Questions

Round 07

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 reference to dairy calf management, which of the following describes morbidity rate?

- a) the number of death losses
- b) the average daily gain of the animals
- c) the number of sick animals in a certain period of time

ANS: c) the number of sick animals in a certain period of time

2. In order to help prevent milk fever, dairy cattle nutritionists may recommend feeding a certain type of a DCAD (Dietary Cation-Anion Difference) diet for close-up dry cows. Would the nutritionist recommend an anionic or a cationic diet to help prevent milk fever?

ANS: Anionic diet

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. 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. Which of the following describes "the release of an egg from a follicle"?

- a) parturition
- b) palpation
- c) ovulation

ANS: c) ovulation

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. Which one of the following is the approximate amount of cheese that can be made from 40 pounds of whole milk?

- a) 20 pounds      b) 10 pounds      c) 2 pounds      d) 4 pounds

ANS: d) 4 pounds

2. Which of the following are the three main volatile fatty acids (VFA) produced in the rumen?

- a) lysine, methionine and tryptophan  
b) arginine, valine and leucine  
c) acetate, propionate and butyrate

ANS: c) acetate, propionate and butyrate

3. Which one of the following is the name of the condition when a dairy cow is receptive to be bred?

- a) artificial insemination      b) heat (or estrus)      c) cloning      d) gestation

ANS: b) heat (or estrus)

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

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

ANS: b) decoquinate

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 one of the following happens to the calf's energy requirement during cold weather:

- a) it increases    b) it decreases    c) it stays the same

ANS: a) it increases

7. In reference to dairy cows, which of the following describes keratin?

- a) the precursor of Vitamin A    b) an essential amino acid    c) a bypass fat feed additive  
d) the wax-like material that lines the teat canal

ANS: d) the wax-like material that lines the teat canal

8. Which one of the following abbreviations refers to the part of feed protein that is undegraded in the cow's rumen?

- a) RDP    b) RAC    c) RUP

ANS: c) RUP

9. Which one of the following is where the National Dairy Shrine is located?

- a) Madison, Wisconsin    b) Janesville, Wisconsin    c) Fort Atkinson, Wisconsin

ANS: c) Fort Atkinson, Wisconsin

10. Which one of the following describes the Pasteurized Milk Ordinance (PMO)?

- a) the document that establishes the Federal Milk Orders  
b) the document that establishes the guidelines for feeding dairy cows  
c) the document that establishes the standards for Grade A milk

ANS: c) the document that establishes the standards for Grade A milk

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

ANS: Lignin

**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. Which one of the following is another name for a calf's mother?**

- a) dam
- b) offspring
- c) sire
- d) progeny

ANS: a) dam

**14. On the PDCA Dairy Judging Scorecard, in which category is the withers?**

ANS: Dairy Character

**15. Which one of the following is the season of the year when consumer demand for dairy products is typically the lowest?**

- a) spring
- b) summer
- c) fall
- d) winter

ANS: b) summer

**16. In dairy cattle judging, which category on the PDCA Dairy Judging Scorecard are you referring to when you describe the cow as being weak in the pasterns?**

- a) Frame
- b) Dairy Character
- c) Body Capacity
- d) Feet and Legs
- d) Udder

ANS: d) Feet and Legs

**17. Which one of the following is defined as the total energy content of a feed?**

- a) net energy
- b) digestible energy
- c) gross energy

ANS: c) gross energy

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

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

ANS: d) fat

**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 which compartment of the ruminant stomach is fermentation the primary digestive process?**

ANS: rumen (or reticulo-rumen)

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

ANS: Total Mixed Ration

**3. Why do dairy farmers often place a KAMAR detector on the rump of their cows?**

ANS: To help detect heat or estrus