

**2007 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. In the United States, dairy farms with this herd size produce the largest percentage of the milk:**

- a) 100 to 499 cows    b) 600 to 900 cows    c) 1000 to 2000 cows    d) Over 2000 cows**

ANS: a) 100 to 499 cows

**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 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) udder edema            d) metritis**

ANS: c) udder edema

**4. Dairy cattle are most comfortable within which of the following temperature ranges?**

- a) 30 to 35 degrees F            b) 50 to 55 degrees F            c) 70 to 75 degrees F**

ANS: b) 50 to 55 degrees F

**5. The National Agricultural Statistics Service (NASS) conducts monthly surveys to determine dairy cow numbers and milk production. Which of the following branches of the Federal government is NASS a part of?**

- a) U.S. Census Bureau            b) Food and Drug Administration (FDA)  
c) Internal Revenue Service            d) U.S. Department of Agriculture (USDA)**

ANS: d) U.S. Department of Agriculture (USDA)

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. Villi are small projections that line the wall of the small intestine. Which of the following describes the primary function of these intestinal villi?

- a) trap foreign objects that are eaten      b) absorb nutrients      c) detoxify mycotoxins

ANS. b) absorb nutrients

2. Which of the following is the name of the instrument that uses the concept of specific gravity to measure the quality of the colostrum before feeding?

- a) pH meter      b) moisture tester      c) volt meter      d) colostrometer

ANS: d) colostrometer

3. Which one of the following is not part of the cow's digestive tract?

- a) reticulum      b) omasum      c) brisket      d) abomasum

ANS: c) brisket

4. Which one of the following terms is defined as the period when the calf is developing in its mother's womb?

- a) parturition      b) lactation      c) gestation      d) eructation

ANS: c) gestation

5. When comparing reproductive fertility, which one of the following groups of dairy cattle are usually the least fertile?

- a) breeding age heifers      b) first lactation cows      c) aged cows

ANS: c) aged cows

6. Which of the following plants is not classified as a legume?

- a) soybean    b) clover      c) alfalfa      d) corn

ANS: d) corn

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

ANS: 10

8. Which one of the following is the name of the section of a cow's back located closest to the tail head?

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

ANS: c) rump

9. On a DHIA report, which of the following is the definition of the category "days open"?

- a) the number of days dry    b) the number of days from calving to conception  
c) the number of days the cow is in the high production group  
d) the number of days of lactation

ANS: b) the number of days from calving to conception

10. Which of the following is the name of the type of bond that joins amino acids together to form protein?

- a) epoxy bond      b) elastic bond      c) peptide bond      d) glycogen bond

ANS: c) peptide bond

11. Which one of the following must be adequate in the dairy cow diet to prevent grass tetany?

- a) salt      b) selenium      c) lysine      d) magnesium

ANS: d) magnesium

**12. Which of the following is the primary protein found in milk?**

- a) methionine      b) tryptophan      c) casein      d) lactose

ANS: c) casein

**13. Which one of the following vitamins can be produced within the skin of most mammals including dairy cattle?**

- a) Vitamin A      b) Vitamin C      c) Vitamin D      d) Vitamin E

ANS: c) Vitamin D

**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 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. In reference to the neonatal calf, what is meant by the term "weaning"?**

ANS: the act of stopping the feeding of milk

**17. In a newborn calf, which stomach compartment is the largest relative size (as a percentage of the total stomach capacity)?**

- a) rumen      b) reticulum      c) omasum      d) abomasum

ANS: d) abomasum

**18. When you measure the circumference of the heart girth of a dairy heifer with a special tape, what are you trying to estimate?**

ANS: Body weight

**19. Which of the following is the primary reason that fat is included in milk replacer?**

**a) as a source of protein      b) as a source of energy      c) as a source of minerals**

ANS: b) as a source of energy

**20. When an injection is given subcutaneously, where is the material deposited?**

ANS: Just under the skin

**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. Compute your score using a 50 point maximum. The official placing is 2-1--3-4 with cuts of 2-5-5. Your placing is 1-2-3-4. What is your score?**

ANS: 48

**2. What do the letters FCM stand for?**

ANS: Fat Corrected Milk

**3. What do the initials BST stand for?**

ANS: Bovine somatotropin