

**2015 Junior Dairy Quiz Bowl Questions**

**Round 04**

**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. What does “palatability” mean in reference to dairy feed?**

**a) the taste or likability of a feed                  b) The color of a feedstuff  
c) the energy level of a feedstuff**

ANS: a) the taste or likability of a feed

**4. What are the two main gases produced in the rumen?**

**a) methane and oxygen      b) methane and carbon dioxide      c) oxygen and helium**

ANS: b) methane and carbon dioxide

**5. Where is the National 4-H Dairy Cattle Judging Contest held?**

ANS: Madison, Wisconsin (also accept Wisconsin or the World Dairy Expo)

**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 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

**2. What type of organism causes “Bovine Leukosis”?**

- a) virus**
- b) bacteria**
- c) protozoa**
- d) lymphocytes**

ANS: a) virus

**3. You purchase one ton (2000 pounds) of dairy feed that contains 25% protein. How many pounds of protein did you buy?**

- a) 200 pounds**
- b) 400 pounds**
- c) 500 pounds**
- d) 800 pounds**

ANS: b) 500 pounds

**4. How many points are allotted to the “Feet and Legs” category on the PDCA Dairy Cow Unified Score Card?**

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

ANS: b) 15

**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. When is consumer demand for dairy products usually the lowest?**

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

ANS: b) summer

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

ANS: 10

**8. Carotene is the precursor for Vitamin A. What color is carotene?**

ANS: orange

**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. As corn silage ferments properly in the silo, what happens to the pH of the silage?**

- a) it increases            b) it decreases            c) it does not change

ANS: b) it decreases

**12. Name the part of the cow that is located just forward of the chine.**

ANS: withers

**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 is the number of upper front teeth in a dairy cow?**

- a) 5   b) 12   c) 15   d) none

ANS: d) none

**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. In what year was Hoard's Dairyman magazine first published?**

- a) 1860      b) 1885      c) 1908      d) 1945

ANS: b) 1885

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

- a) a mastitis pathogen                      b) an amino acid                      c) a ketone body**

ANS: c) a ketone body

**2. What compartment of the ruminant stomach has a honeycomb lining?**

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

ANS: b) reticulum

**3. How old should the average well-grown Holstein heifer be when she is bred?**

- a) 8-12 months                      b) 13-15 months                      c) 16-18 months                      d) 22-24 months**

ANS: b) 13-15 months