

2007 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. A cow is consuming 50 pounds of dry matter from a total mixed ration (TMR) that contains 50% moisture. How many actual (as-fed) pounds of the TMR is the cow eating?

- a) 50 pounds b) 100 pounds c) 250 pounds

ANS: b) 100 pounds

Calculation: 50 pounds of dry matter divided by 50% dry matter in the TMR

2. When formulating rations, nitrogen is a major consideration for dairy nutritionists. Which one of the following is the primary way that nitrogen is added to the ration?

- a) in the water b) from sources of crude protein c) from limestone
d) from supplemental fat

ANS: b) from sources of crude protein

3. In a lactating dairy cow, which of the following is the hormone responsible for a cow not having milk letdown?

- a) adrenaline (or epinephrine) b) oxytocin c) progesterone

ANS: a) adrenaline (or epinephrine)

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. The Babcock test is used to measure the milk fat (butterfat) content in milk. At which university was the Babcock test developed?

ANS: University of Wisconsin

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. The disease “Rickets” is caused by a deficiency of a certain vitamin. What is the name of this vitamin?

ANS: Vitamin D

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

ANS: Overconditioned

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

ANS: Orange

4. Which one of the following terms is used to describe the appearance and performance characteristics that an animal shows or demonstrates?

a) genotype b) phenotype c) mitosis d) heterozygote

ANS: b) phenotype

5. What part of the cow does laminitis affect?

ANS: Hooves (or feet)

6. What disease does the pathogen “Klebsiella” cause in lactating dairy cows?

ANS: Mastitis

7. Which of the following is the normal delivery position when a calf is born?

- a) back feet first b) shoulders first c) front feet first and then the head

ANS: c) front feet first and then the head

8. 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

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. Which one of the following would be a good choice to provide additional fiber in a dairy ration?

- a) corn grain b) barley grain c) soybean meal d) cottonseed hulls

ANS: d) cottonseed hulls

11. Which of the following is a source of mycotoxins in feed?

- a) sugars b) bacteria c) molds

ANS: c) molds

12. Which one of the following terms or phrases is used in dairy cattle judging to describe when the area on the cows' back located between the chine and the rump dips and is not strong?

- a) winged shoulder b) sickle-hocked c) cow-hocked d) weak in the loin

ANS: d) weak in the loin

13. What does it mean when a heifer is "polled"?

- a) she is a crossbred b) she is a freemartin c) she was born without horns

ANS: c) she was born without horns

14. Which one of the following is the name of the hormone that causes the heifer or cow to come into heat?

- a) estrogen b) oxytocin c) progesterone d) testosterone

ANS: a) estrogen

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

ANS: 305 days is the standardized lactation length

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. Which one of the following terms is often used to indicate the energy value of a feedstuff?

- a) RUP b) RDP c) CP d) TDN or NE_L

ANS: d) TDN or NE_L

18. In reference to feeding guidelines for dairy animals, what does NRC stand for?

ANS: National Research Council

19. What is the name of the toxic yellow pigment that can be found in cottonseed?

ANS: Gossypol

20. What is the name of the first milk produced by the cow immediately after calving that contains immunoglobulins (antibodies)?

ANS: Colostrum

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. Name the stomach compartments in a ruminant animal.

ANS: Rumen, Reticulum, Omasum, Abomasum

2. Approximately how many gallons of blood must pass through the udder in order for the cow to produce one gallon of milk?

a) 400-500 gallons b) 40-50 gallons c) 10-15 gallons

ANS: a) 400-500 gallons

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

ANS: Neutral Detergent Fiber