

2006 Senior Dairy Quiz Bowl Questions

Round 01

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. Which normally occurs first in a lactating dairy cow, peak milk production or peak feed intake?

ANS: Peak milk production

2. In reference to DCAD (Dietary Cation-Anion Difference) which of the following is the definition of an anion?

- a) a positively charged ion or particle
- b) a negatively charged ion or particle
- c) an ion or particle with a neutral charge

ANS: b) a negatively charged ion or particle

3. What is the name of the document that establishes the standards for Grade A milk?

ANS: Pasteurized Milk Ordinance (also accept PMO)

4. Which volatile fatty acid (VFA) produced in the rumen is a precursor for glucose?

ANS: Propionate

5. The DRMS is located in Raleigh. What does DRMS stand for?

ANS: Dairy Records Management Systems

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. When referring to milk composition analysis, what does MUN stand for?

ANS: Milk Urea Nitrogen

2. If a 1500 pound cow is eating an amount of feed dry matter equivalent to 3% of its body weight, how many pounds of feed dry matter is the cow eating?

ANS: 45 pounds of feed dry matter

3. What do we call the first streams of milk stripped from the udder prior to milking?

a) residual milk b) alveoli c) foremilk d) lactation

ANS: c) foremilk

4. North Carolina is included in which of the following Federal Milk Marketing Orders?

a) Southeast b) Appalachian c) Central d) Mideast

ANS: b) Appalachian

5. How many amino acids are considered to be essential in the dairy cow, and therefore are required in the diet?

a) 40 b) 30 c) 20 d) 10

ANS: d) 10

6. In a 400 cow breeding herd with a 50% conception rate, how many cows would need to be bred the second time?

ANS: 200

7. What buffering compound is routinely added to dairy rations to help prevent acidosis?

ANS: Sodium bicarbonate

8. Which one of the following can be a source of the toxic substance “prussic acid”?

a) soybean meal b) sorghum forage when it becomes damaged by frost c) corn grain

ANS: b) sorghum forage when it becomes damaged by frost

9. Which one of the following terms refers to practices that prevent the introduction or spread of disease on the farm?

a) biosecurity b) clarification c) homogenization d) incubation

ANS : a) biosecurity

10. In reference to calves, what is the disease enteritis more commonly called?

a) pneumonia b) scours c) foot rot

ANS: b) scours

11. Which of the following are examples of mycotoxins?

a) lipids b) carbohydrates c) proteins d) deoxynivalenol (DON), T2, zearalenone and fumonisin

ANS: d) deoxynivalenol (DON), T2, zearalenone and fumonisin

12. During which one of the following times of the year is the consumer demand for dairy products typically the lowest?

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

ANS: b) summer

13. Which one of the following has happened to the pH of the rumen when a cow has acidosis?

- a) it has increased to a high level b) it has declined to a low level c) it has not changed

ANS: b) it has declined to a low level

14. The lining of the rumen is covered with finger-like projections that serve to increase the surface area for absorption of nutrients. What is the name of these projections?

- a) crypts b) colon c) metatarsals d) papillae

ANS: d) papillae

15. What is the term used to describe the genetic make-up of an individual?

ANS: genotype

16. Cattle can develop "grass tetany" when grazing lush pasture. Which one of the following causes grass tetany?

- a) brucellosis b) bloat c) coccidiosis d) a deficiency of magnesium in the diet

ANS: d) a deficiency of magnesium in the diet

17. What disease is caused by *Mycobacterium paratuberculosis*?

ANS: Johne's Disease

18. Generally, about how many pounds of additional milk will a cow produce if she consumes one more pound of dry matter?

- a) 0 to 1 b) 2 to 3 c) 5 to 6 d) 8 to 10

ANS: b) 2 to 3

19. In a dairy herd, which of the following age groups of cattle generally has the highest incidence of dystocia (calving difficulty)?

- a) 2nd lactation cows b) Aged cows c) Heifers (when giving birth to their first calf)

ANS: c) Heifers (when giving birth to their first calf)

20. If a total mixed ration contains 52% dry matter, what percentage moisture does it contain?

ANS: 48% moisture

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. The milk replacer label lists that it contains 20% fat. How many pounds of fat will be contained in a 50 pound bag of the milk powder?

ANS: 10 pounds of fat

2. Name the four compartments of a dairy cow's stomach.

ANS: Rumen, reticulum, omasum, abomasum

3. When referring to genetic evaluations, what do the letters BLUP stand for?

ANS: BEST LINEAR UNBIASED PREDICTION