

2010 Senior Dairy Quiz Bowl Questions

Round 05

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 name of the new category on the new PDCA Dairy Cow Unified Scorecard that replaced body capacity and dairy character?

ANS: Dairy Strength

2. Which one of the following is the name of the disease caused by a bacterial infection of a spiral shaped bacterium (spirochete) called Borrellia burgdorferi?

a) pasturella b) shipping fever c) Lymes disease d) Johnes disease

ANS: c) Lymes disease

3. What is the name for the time period when the cow is pregnant?

ANS: gestation

4. A deficiency of a certain vitamin in the cow's diet can cause an oxidized flavor in milk. What is the name of this vitamin?

ANS: Vitamin E

5. Name the pituitary hormone that is critical for the initiation and maintenance of lactation?

ANS: Prolactin

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 dairy breeds normally has the least amount of calving difficulty?

- a) Guernsey b) Holstein c) Brown Swiss d) Jersey

ANS: d) Jersey

2. A cow is consuming 110 pounds of actual (as-fed) pounds of a total mixed ration (TMR) each day. This TMR contains 50% dry matter. How many pounds of dry matter is the cow consuming per day?

ANS: 55 pounds of dry matter

3. Which of the following is the term for a difficult or abnormal calving?

- a) acetonemia b) dystocia c) ketosis d) metritis

ANS: b) dystocia

4. What is the name of the large blood vein visible in the neck that the veterinarian can use to draw blood from or put in fluid?

ANS: Jugular vein

5. What group of hormones, produced in the uterus, causes regression of the corpus luteum, and contractions of the uterus?

ANS: Prostaglandins

6. In the dairy cow, what volatile fatty acid is the precursor for glucose?

ANS: Propionate

7. Write this down: Calculate your heifer's average daily gain (ADG) if she weighs 100 pounds at birth and 500 pounds at 200 days of age.

ANS: 2 pounds per day ADG

Calculation: 500 pounds minus 100 pounds birth weight = 400 pounds of gain; 400 pounds of gain divided by 200 days of age = 2 pounds ADG

8. During the digestive process, what enzyme functions to break down fat (or lipids)?

a) cellulase b) lactase c) lipase d) pepsin

ANS: c) lipase

9. What is the common name of the condition that can develop in the rumen of a dairy cow when we feed too much grain and not enough effective fiber, which causes the pH of the rumen to drop to a low level?

ANS: acidosis

10. What is the predominant class of immunoglobulins found in bovine colostrum?

a) IgA b) IgG c) IgM d) IgF

ANS: b) IgG

11. What is the process of heating milk to destroy pathogenic bacteria called?

ANS: pasteurization

12. What is the name of the muscle that keeps the teat end closed and helps prevent organisms from entering the udder?

ANS: Sphincter muscle

13. Which one of the following is the name of the fiber component in plants that is a part of the cell walls and is not digested and is not absorbed by ruminant animals?

a) pectin a) sucrose c) lignin d) starch

ANS: c) lignin

14. What is the term used to describe the physical characteristics and performance of an individual?

ANS: Phenotype

15. Write this down: Compute your score (using a 50-point maximum) where the official placing is 1-2-3-4 with cuts of 2-3-7 and your placing is 1-3-2-4.

ANS: 47

16. Which one of the following contains the most energy?

a) carbohydrate b) fat c) protein d) fiber

ANS: b) fat

17. If refrigerated properly, pasteurized and homogenized milk remains fresh for how many days after the expiration date?

a) 2 to 3 days b) 4 to 5 days c) 7 to 10 days d) 12 to 14 days

ANS: c) 7 to 10 days

18. What is the term for the process where in the presence of light, chlorophyll-containing plants convert carbon dioxide and other elements into carbohydrates and oxygen?

ANS: Photosynthesis

19. An inflammation of the lining of the uterus is called:

a) cystitis b) endometritis c) laminitis d) peritonitis

ANS: b) endometritis

20. Name the metabolic disorder that a deficiency of magnesium can cause in cows grazing lush pasture.

ANS: grass tetany (also accept grass staggers)

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. When a sperm cell with a Y chromosome fertilizes an egg, what will be the sex of the offspring?

ANS: male

2. What is the proper name of the ligament that causes the cleft between the halves of the udder?

a) lateral suspensory ligament b) median suspensory ligament c) thurl ligament

ANS: b) median suspensory ligament

3. Which one of the following is a disease commonly associated with reproductive failure and abortion in dairy cattle?

a) coccidiosis b) leptospirosis c) ketosis

ANS: b) leptospirosis