

2015 Senior 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. When formulating rations, nitrogen is a major consideration for dairy nutritionists. Which one of the following is the primary source of nitrogen that is added to the ration?

- a) limestone b) fat c) water d) crude protein

ANS: d) crude protein

2. Which of the following is the name of the organization that is charged with evaluating genetic traits of dairy cattle?

- a) Animal Improvement Programs Laboratory b) Dairy Business Association
c) Dairy Herd Improvement Association d) World Dairy Expo

ANS: a) Animal Improvement Programs Laboratory

3. In reference to milk processing, what describes “the cost of turning milk into cheese”?

- a) income over feed costs b) somatic cell counts
c) “make allowance” d) amount of waste milk from treated cows

ANS: c) “make allowance”

4. What part of the cell is known as the powerhouse of the cell because of the amount of energy produced in this part?

- a) villi b) cell membrane c) mitochondrion (or mitochondria)

ANS: a) mitochondrion (or mitochondria)

5. What hormone is released by the pineal gland in response to longer day length?

ANS: Melatonin

Phase C20 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. Name the part of the cow that is located between the dew claw and the hoof.

ANS: pastern

2. During heat stress, which one of the following times is closest to when a typical cow's internal body temperature peaks?

a) 11:30 p.m. b) 11:30 a.m. c) 7:30 p.m. d) 7:30 a.m

ANS: a) 11:30 p.m.

3. Which one of the following is likely to happen when we feed too much crude protein in the ration?

a) DA (displaced abomasum) b) fatty liver c) acidosis
d) increase in nitrogen excretion to the environment

ANS: d) increase in nitrogen excretion to the environment

4. What is the term for a protein that acts as a catalyst in starting or speeding up certain chemical reactions during nutrient metabolism?

ANS: enzyme

5. What is the name of the toxic pigment that can be found in whole cottonseed?

ANS: gossypol

6. What are the secretory cells in the mammary gland that are arranged in grape-like structures called?

ANS: alveoli

7. In what city and state is the National Dairy Shrine located?

ANS: Fort Atkinson, Wisconsin

8. Which of the following is the average duration of standing heat in a dairy cow?

a) 6-12 hours b) 12-18 hours c) 18-24 hours d) 24-36 hours

ANS: b) 12-18 hours

9. What does it mean when a heifer is overconditioned?

a) she is emaciated b) she is too fat c) she is too thin

ANS: b) she is too fat

10. What is the process called when an egg from a cow and spermatozoa from a bull are joined?

ANS: Fertilization

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 you're 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)

