

2004 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. Name the four compartments of a dairy cow's stomach.

ANS: Rumen, reticulum, omasum, abomasum

2. What part of the cow's stomach has a lining that looks like a honeycomb and serves to trap foreign objects that are eaten such as wire or nails?

ANS: Reticulum

3. What is the name of the hormone produced by the ovary that makes cows come into heat?

ANS: Estrogen

4. On a feed ration report you see that the zinc concentration is listed as 40 ppm. What does ppm mean?

ANS: Parts per million

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

ANS: Peak milk production

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. What term is used to measure the accuracy of a genetic evaluation?

- a) reliability
- b) predictability
- c) marketability

ANS: a) reliability

2. Before ovulation, what is the name of the blister-like structure on the ovary that contains the egg?

- a) corpuscle
- b) zygote
- c) follicle
- d) chromosome

ANS: c) follicle

3. When a cow is frightened, what hormone is released?

- a) progesterone
- b) estrogen
- c) testosterone
- d) adrenaline (epinephrine)

ANS: d) adrenaline (epinephrine)

4. Which B vitamin has been shown to improve hoof health as well as milk production?

- a) biotin
- b) valine
- c) riboflavin
- d) methionine

ANS: a) biotin

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. When cattle are grazing lush pasture, what can a deficiency of magnesium in the diet cause?

a) grass tetany b) bloat c) coccidiosis d) brucellosis

ANS: a) grass tetany

7. What is the name of the most desirable acid produced during silage fermentation that functions to preserve the silage when corn silage is stored in a silo?

a) lactic acid b) butyric acid c) hydrochloric acid

ANS: a) lactic acid

8. Liquid nitrogen is used to freeze and store semen. What is the temperature (in degrees F) of liquid nitrogen?

a) - 120 degrees F b) - 220 degrees F c) -320 degrees F d) - 420 degrees F

ANS: c) -320 degrees F

9. Which of the following describes the act of stopping the feeding of milk as the main source of nutrition to a calf?

a) drenching b) compensatory gain c) weaning

ANS: c) weaning

10. What 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 decreased to a low level

11. When sorghum becomes damaged by frost, what toxic substance can be produced?

ANS: Prussic acid

12. In a 800 cow breeding herd with a 50% conception rate, how many cows would need to be bred the third time?

ANS: 200

13. In the reproductive system of a dairy cow, what is the proper name for the term “yellow body”?

ANS: corpus luteum

14. Hominy feed, wheat middlings and distillers grains are examples of:

a) forages b) by-product feeds c) bentonites d) minerals

ANS: b) by-product feeds

15. Which of the following forages is classified as a legume?

a) fescue b) corn silage c) alfalfa d) sorghum

ANS: c) alfalfa

16. 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

17. In a newborn calf, which stomach compartment is the largest relative size (as a percentage of the total stomach capacity)?

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

ANS: d) abomasum

18. What is the common name for the metabolic disorder acetonemia?

a) brucellosis b) leptospirosis c) ketosis

ANS: c) ketosis

19. What is the name of the class of chemicals used to kill internal parasites?

a) clostridia b) anthelmintics c) antibiotics

ANS: b) anthelmintics

20. If a total mixed ration contains 47% dry matter, what percentage moisture does it contain?

ANS: 53% 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. What is the name of the sugar found only in milk?

ANS: Lactose

2. The milk replacer label shows that it contains 20% fat. How many pounds of fat will be contained in 100 pounds of the milk powder?

ANS: 20 pounds of fat

3. What is the name of the acute infection caused by the spore-forming bacteria, *Bacillus anthracis*, that primarily affects livestock?

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|---------------------------|-------------------|
| a) anthrax | c) Johnes Disease |
| b) Foot and Mouth disease | d) Rabies |

ANS: a: anthrax