

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 one of the following compartments of the ruminant stomach secretes acid?

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

ANS: d) abomasum

2. Which one of the following is the common name for the condition known as "parturient paresis"?

- a) mastitis b) milk fever c) displaced abomasum d) laminitis

ANS: b) milk fever

3. Bypass protein refers to the part of feed protein that, in the cow's rumen, is:

- a) degraded b) undegraded c) fermented to volatile fatty acids

ANS: b) undegraded

4. Which one of the following describes the energy balance in an early lactation, high producing dairy cow that is losing body weight?

- a) positive energy balance b) negative energy balance c) neutral energy balance

ANS: b) negative energy balance

5. Which of the following is not part of the cow's digestive system?

- a) rumen b) small intestine c) esophagus d) pasterns

ANS: d) pasterns

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 do we determine when we multiply the nitrogen fraction of a feed by the factor 6.25?

- a) energy content of the feed b) crude protein content of the feed
c) starch content of the feed

ANS: b) crude protein content of the feed

2. What is another name for the foot problem “founder” caused by acidosis in dairy cattle?

ANS: Laminitis

3. In which of the following seasons would you expect the dairy cow conception rate to be lowest in North Carolina?

- a) Spring b) Summer c) Fall d) Winter

ANS: b) Summer

4. In reference to milk and dairy product promotion, what does SUDIA stand for?

ANS: Southeast United Dairy Industry Association

5. If the “effective fiber” level of a ration is too low, what happens to the milk fat test?

- a) it increases b) it decreases c) it stays the same

ANS: b) it decreases

6. Which of the following are the basic structural units of protein?

- a) fat b) carbohydrate c) amino acids

ANS: c) amino acids

7. In dairy cows, what is the name of the disease caused by the organisms Staph. aureus, Strep. uberis and Klebsiella?

ANS: Mastitis

8. At what temperature should milk be held in the farm bulk tank?

- a) 58 degrees F b) 48 degrees F c) 38 degrees F d) 28 degrees F

ANS: c) 38 degrees F

9. Which of the following is present in colostrum that provides the newborn calf with passive immunity to disease?

- a) fat b) lactose c) immunoglobulins (antibodies) d) carbohydrate

ANS: c) immunoglobulins (antibodies)

10. The NRC provides guidelines for the nutrient requirements for dairy cattle. Which one of the following does NRC stand for?

- a) National Research Council b) Nutritional Requirement Committee
c) National Rumen Conference

ANS: a) National Research Council

11. Which nutritional disease is most often associated with laminitis (founder) in dairy cows?

ANS: acidosis

12. In the dairy cow's reproductive tract, where does fertilization of the ova take place?

ANS: oviduct

13. Which one of the following feeds will increase the level of effective fiber in a dairy cow ration?

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

ANS: c) cottonseed hulls

14. What is the name for clusters of milk secreting cells in the udder of a dairy cow?

ANS: Alveoli

15. Which one of the following is calcitic limestone used for in dairy cattle rations?

- a) protein supplement b) energy supplement c) fat supplement
d) calcium supplement

ANS: d) calcium supplement

16. Which one of the following is the definition of metritis?

- a) an infection of the udder b) an infection of the uterus c) foot rot

ANS: b) an infection of the uterus

17. A deficiency of which one of the following has been associated with retained placenta in cows and white muscle disease in calves?

- a) copper b) selenium c) iron d) niacin

ANS: b) selenium

18. In reference to milk composition, what does CLA stand for:

- a) Calcium Lactation Availability b) Conjugated Linoleic Acid
c) Cell Lipoprotein Accretion

ANS: b) Conjugated Linoleic Acid

19. Which one of the following is the reason that we apply tail paint and Kamar devices on certain dairy cows?

- a) to improve dry matter intake b) to help detect heat (estrus)
c) to increase milk production

ANS: b) to help detect heat (estrus)

20. When a baby calf has scours, not enough fluids are absorbed from the intestinal tract. Which one of the following problems does this cause in the calf?

- a) chelation b) rumination c) dehydration

ANS: c) dehydration

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 used to freeze and store semen for artificial insemination?

ANS: Liquid nitrogen

2. When comparing bulls for artificial insemination, what does "ERCR" stand for?

ANS: Estimated Relative Conception Rate

3. How many points are allotted for body capacity on the PDCA Dairy Cow Unified Score Card?

ANS: 10