

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 term for the process where, in the presence of sunlight, chlorophyll-containing plants convert carbon dioxide and other elements into simple carbohydrates with oxygen also being produced?

ANS: Photosynthesis

2. Which one of the following vitamins is water-soluble?

- a) Vitamin A b) Vitamin D c) Vitamin C d) Vitamin K

ANS: Vitamin C

3. Which of the following is the term for a large and complex protein material that is capable of causing disease and that reproduces only inside a host cell?

- a) bacteria b) protozoa c) virus d) salmonella

ANS: c) virus

4. In a dairy cow, which of the following is the name of the opening that the digesta flows through as it enters the omasum?

- a) jejunum b) colon c) ileum d) reticulo-omasal orifice

ANS: d) reticulo-omasal orifice

5. Which part of the milking machine functions to alternate vacuum and atmospheric pressure in the space between the teat cup shell and the liner?

- a) regulator b) pulsator c) compressor

ANS: b) pulsator

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 of the following is the name of the ligament that divides the udder into a right and left side and provides the main support for the udder?

- a) lateral ligament b) anterior cruciae ligament c) median suspensory ligament

ANS: c) median suspensory ligament

2. In reference to milk quality, which of the following does 750,000 cells/ml refer to?

- a) maximum bacteria count in milk
b) maximum legal limit of somatic cells concentration that milk can contain
c) maximum Vitamin D concentration in milk

ANS: b) maximum legal limit of somatic cells concentration that milk can contain

3. Which one of the following is the reason that we should we give a dairy heifer a special magnet that will stay in her reticulum?

- a) to help prevent ketosis b) to help prevent metritis
c) to help prevent “hardware disease”

ANS: c) to help prevent “hardware disease”

4. A deficiency of the trace mineral selenium has been associated with this disease in calves:

- a) enterotoxemia b) white muscle disease c) cryptosporidiosis

ANS: b) white muscle disease

5. Which of the following is the main reason that the feed additive Deccox (decoquinate) is often included in calf starter feed?

- a) to control coccidia b) as a source of calcium c) to control flies

ANS: a) to control coccidia

6. Which one of the following is the best time for the newborn calf to receive its first feeding of colostrum?

- a) after one week of age b) at 3 days of age
c) as soon as possible, preferably within the first 30 minutes of life

ANS: c) as soon as possible, preferably within the first 30 minutes of life

7. Which of the following is often a factor that causes calves to develop respiratory illness?

- a) when calves are kept in individual outdoor hutches
b) when calves are raised outside on pasture
c) when calves are kept in a warm, moist barn that is not well-ventilated

ANS: c) when calves are kept in a warm, moist barn that is not well-ventilated

8. Which one of the following is the percentage of water contained in normal milk?

- a) 67.5% b) 77.5% c) 87.5% d) 97.5%

ANS: c) 87.5%

9. Which one of the following describes the condition when the abomasum twists out of normal position?

- a) winter dysentery
b) rumen parakeratosis
c) displaced abomasum (DA)

ANS: c) displaced abomasum (DA)

10. Which one of the following is a class of immunoglobulins (or antibodies)?

- a) FSH b) IgG c) CLA

ANS: b) IgG

11. Which one of the following ranges is closest to the total ration crude protein requirement for early lactation cows?

- a) 6 to 8% b) 10 to 12% c) 16 to 18% d) 25 to 28%

ANS: c) 16 to 18%

12. Of the following, which is the most important reason that we need to limit the time that a cow spends crowded in the holding area or pen on her way into the milking parlor?

- a) to reduce foot rot b) to reduce heat stress c) to reduce metritis

ANS: b) to reduce heat stress

13. On the PDCA Dairy Cow Unified Score Card, how many points are assigned to the Dairy Character category?

- a) 10 b) 15 c) 20 d) 40

ANS: c) 20

14. Your veterinarian advises you to drench your cow with propylene glycol. What metabolic disorder are you trying to prevent?

ANS: Ketosis (also accept acetonemia)

15. When comparing bulls for artificial insemination, what does ERCR stand for:

ANS: Estimated **R**elative **C**onception **R**ate

16. Which of the following is the time when is a cow most susceptible to mastitis infection?

- a) in late lactation b) during the early dry period
c) right after she has her calf (at freshening)

ANS: c) right after she has her calf (at freshening)

17. The disease Cryptosporidiosis (“Crypto”) in calves is caused by a protozoan parasite. Which one of the following sections of the digestive system does “Crypto” primarily affect?

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

ANS: b) small intestine

18. Which of the following are the two primary gases produced in the rumen?

- a) oxygen and carbon dioxide
- b) methane and oxygen
- c) methane and carbon dioxide

ANS: c) methane and carbon dioxide

19. Which of the following is the average gestation period (in days) for a dairy cow?

- a) 180 days
- b) 280 days
- c) 305 days
- d) 365 days

ANS: b) 280 days (accept 275 to 285 days)

20. Which one of the following has the greatest effect on the concentration of fiber in a growing plant?

- a) amount of lime applied per acre
- b) stage of maturity of the plant
- c) weed control

ANS: b) stage of maturity of the plant

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. How many amino acids are considered to be “essential” by the dairy cow and therefore must be provided in the diet?

- a) 30 b) 20 c) 10

ANS: c) 10

2. On a dairy ration printout, which of the following refers to the energy level in the ration?

- a) CP b) NE_L and TDN c) RUP

ANS: b) NE_L and TDN

3. In dairy cattle judging, what are you referring to when you describe this part as having a higher and wider attachment?

- a) fore udder b) rear udder c) tail head d) muzzle

ANS: b) rear udder