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 causes Cryptosporidiosis (“crypto”) in calves?
   a) low energy diets  b) a virus  c) a protozoan parasite
   ANS: c) a protozoan parasite

2. What is the name of the group of hormones, produced in the uterus, that causes regression of the corpus luteum, and contractions of the uterus.
   ANS: prostaglandins

3. Which of the following are the two primary gases produced in the rumen?
   a) oxygen and carbon dioxide  b) methane and carbon dioxide  c) methane and oxygen
   ANS: b) methane and carbon dioxide

4. Which one of the following best describes the Ovsynch program?
   a) a nutrition management program  b) a reproductive management program  c) a vaccination program
   ANS: b) a reproductive management program

5. Which of the following describes an enzyme?
   a) a carbohydrate energy source  b) a rumen-protected fat source  c) a protein that acts as a catalyst in starting or speeding up certain chemical reactions
   ANS: b) a protein that acts as a catalyst in starting or speeding up certain chemical reactions
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 are examples of by-product feeds?
   a) fescue and orchardgrass  b) cottonseed hulls and distillers grains  c) sodium bicarbonate
   
   ANS: b) cottonseed hulls and distillers grains

2. Which of the following is the common name for the metabolic disorder acetonemia?
   a) brucellosis  b) ketosis  c) leptospirosis
   
   ANS: b) ketosis

3. What is the term used to describe a period of increased growth rate in heifers that follows a growth restriction earlier in the heifer’s life?
   
   ANS: Compensatory growth (or compensatory gain)

4. Which one of the following is formed when glucose and galactose combine?
   a) fructose  b) sucrose  c) dextrose  d) lactose
   
   ANS: d) lactose

5. What is the maximum somatic cell count allowed in milk that is sold in the U.S.?
   a) 250,000  b) 450,000  c) 650,000  d) 750,000
   
   ANS: d) 750,000
6. Which one of the following is the name of the primary protein found in milk?
   a) lysine        b) casein        c) lactose        d) glutamine
   ANS: b) casein

7. In reference to the topline of a dairy cow, which one of the following is located between the chine and the rump?
   a) thurl       b) loin         c) withers        d) tail head
   ANS: b) loin

8. When do we normally start feeding dairy cows a “transition diet”?
   a) 2 months after calving   b) in late lactation just before drying off the cow  
   c) 2 to 3 weeks before the expected calving date
   ANS: c) 2 to 3 weeks before the expected calving date

9. Which one of the following types of fiber is indigestible by the cow?
   a) cellulose      b) hemicellulose c) lignin
   ANS: c) lignin

10. In a dairy animal, what is the name of the tube that connects the mouth to the rumen?
    ANS: esophagus

11. What do the initials ET stand for on a Holstein pedigree?
    ANS: Embryo Transfer

12. Which one of the following is the name of the condition in which a cow comes into heat every few days?
    a) gestation      b) anestrus   c) cystic       d) lactation
    ANS: c) cystic

13. A deficiency of which of the following vitamins causes the disease “Rickets” in calves?
    a) Vitamin A      b) Vitamin C   c) Vitamin E    d) Vitamin D
    ANS: d) Vitamin D
14. When raising dairy heifers, which of the following stages of growth is the most costly period?

   a) 100 to 200 pounds  
   b) 300 to 400 pounds  
   c) 700 to 800 pounds  
   d) 1,200 to 1,300 pounds

ANS: a) 100 to 200 pounds

15. In a dairy cow, what is the name of the gland that produces oxytocin?

ANS: Pituitary gland

16. In North Carolina, which of the following generally happens to dairy cow conception rates in the summer?

   a) they stay the same  
   b) they decline  
   c) they increase

ANS: b) they decline

17. The use of DCAD when formulating rations for close-up dry cows may help to prevent milk fever when they freshen. What do the letters DCAD stand for?

ANS: Dietary Cation-Anion Difference

18. Which one of the following terms refers to the number of sick animals in a certain period of time?

   a) mortality rate  
   b) conception rate  
   c) morbidity rate

ANS: c) morbidity rate

19. Which one of the following is the most costly form of mastitis?

   a) acute  
   b) chronic  
   c) clinical  
   d) subclinical

ANS: d) subclinical

20. In humans, what is the name of the enzyme that is needed to digest the sugar found in milk?

ANS: lactase (note: lactose is the milk sugar; lactase is the enzyme)
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 posing a lactating dairy cow in the show ring, the rear leg closest to the judge should be in which of the following positions?
   a) forward   b) backward   c) it does not matter

   ANS: a) forward

2. What metabolic disorder does the feeding or drenching of “propylene glycol” help to prevent in dairy cows?

   ANS: Ketosis (also accept Acetonemia)

3. In what city and state is the World Dairy Expo held?

   ANS: Madison, Wisconsin