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 number of days that DHIA lactation records are standardized to?

ANS: 305 days

2. In reference to a feed analysis report, what do the initials ADF stand for?

ANS: Acid-detergent fiber

3. What is the chemical name that describes the heifer feed additives Rumensin (monensin) and Bovatec (lasalocid)?

ANS: Rumensin and Bovatec are ionophores

4. What does the term 3X mean in a cow’s production record?

ANS: The cow was milked 3 times a day

5. What compartment of the cow’s stomach functions as a large fermentation vat?

ANS: Rumen

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. The somatic cell count in milk gives an indication of:

   a) the mineral content  b) the vitamin content  c) the protein content  
   d) a mastitis infection

   ANS: d) a mastitis infection

2. Which breed of dairy cattle is the most prevalent in the United States?

   ANS: Holstein

3. In reference to feeding dairy cattle, what do the initials TMR stand for?

   ANS: Total mixed ration

4. What are the basic structural units of protein?

   ANS: Amino acids

5. True or False

   Coccidiosis is caused by a protozoan organism.

   ANS: True

6. Units of inheritance are called:

   a) chromosomes  b) genes  c) RNA

   ANS: b) genes

7. Calving ease data is most useful when selecting sires for this category of dairy animals:
a) late lactation cows b) heifers c) dry cows

ANS: b) heifers

8. DUMPS is an inherited condition which results in embryonic death. In which breed is it found?

a) Jersey b) Guernsey c) Holstein

ANS: c) Holstein

9. You send a sample of corn silage from your trench silo to the lab for nutrient analysis. The report lists the dry matter of the silage at 33%. How many pounds of dry matter are in 100 pounds of the silage?

a) 67 b) 33 c) 35 d) 100

ANS: b) 33

10. Which of the following is highest in crude protein?

a) fescue hay b) corn silage c) soybean meal c) alfalfa silage

ANS: c) soybean meal

11. True or False
If milk is exposed to light, it can develop an off-flavor.

ANS: True

12. What is the name of the disease caused by *Mycobacterium paratuberculosis*?

ANS: Johne’s (pronounced “yo-nees”) disease

13. What is another name for ketosis?

a) brucellosis b) acetonemia c) leptospirosis

ANS: b) acetonemia

14. What is often found in drought-stressed forages that can be toxic to dairy animals?

a) high levels of nitrates b) high levels of carbohydrate c) high levels of protein
ANS: a) high levels of nitrates

15. What type of fiber is indigestible by the cow?
   a) cellulose   b) hemicellulose   c) lignin

ANS: c) lignin

16. What hormone is released when a cow is frightened?
   a) estrogen   b) testosterone   c) progesterone   d) adrenaline (epinephrine)

ANS: d) adrenaline (epinephrine)

17. What are acetate, propionate and butyrate?
   a) amino acids   b) volatile fatty acids   c) carbohydrates

ANS: b) volatile fatty acids

18. On a feed ration report you see that the copper concentration is listed as 10 ppm. What does ppm mean?

ANS: Parts per million

19. What is a zygote?

ANS: A fertilized egg

20. True or False
   It is a good management practice to separate first lactation cows into their own group from older cows in the milking herd.

ANS: True

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. On a Holstein pedigree, what do the letters TPI stand for?

ANS: Type-Production Index

2. What does NEL stand for?

ANS: Net energy for lactation

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

ANS: 15 points

4. On a Holstein pedigree, what does BLAD stand for?

ANS: Bovine leukocyte adhesion deficiency

5. What is the name of the highly contagious cattle disease that caused thousands of dairy cattle to be slaughtered in Great Britain recently?

ANS: Foot and Mouth Disease (FMD)