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. True or False
   If you don’t feed heifers correctly during the first year of life, their breeding can be delayed.

   ANS: True

2. True or False
   An embryo with two X chromosomes will result in a female calf.

   ANS: True

3. What is the name of the precursor for Vitamin A?

   ANS: Carotene

4. What is the name of the hormone that maintains pregnancy in dairy cattle?

   ANS: Progesterone

5. When referring to milk, what do the initials SNF stand for?

   ANS: Solids-Not-Fat

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 one of the following is the best calcium supplement for cattle feeds?
   a) corn grain  b) soybean meal   c) oats    d) calcitic limestone
   ANS: d) calcitic limestone

2. When a calf nurses, what functions to divert the milk into the abomasum?
   a) the reticulum b) the esophageal groove c) its tongue
   ANS: b) the esophageal groove

3. What is the name of the mineral that is fed or injected in small amounts that helps to prevent retained placenta?
   ANS: Selenium

4. 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

5. In a dairy cow, an infection of the uterus is called:
   a) IBR  b) winter dysentery)  c) metritis (or pyometra)  d) mastitis
   ANS: c) metritis (or pyometra)

6. On DHIA records, lactation length is standardized to how many days?
   a) 305 days    b) 365 days    c) 280 days   d) 380 days
7. The “ring test” conducted on milk samples is a screening test for what cattle disease?

ANS: Brucellosis (also known as Bangs disease)

8. Which of the following is often added to dairy cow rations as a source of fiber?

a) corn grain  b) long-stemmed hay  c) cottonseed meal

ANS: b) long-stemmed hay

9. During “milk fever”, there is a large decrease of this mineral in the blood:

a) zinc  b) selenium  c) calcium

ANS: c) calcium

10. How many gallons of blood must pass through the udder in order for the cow to produce one gallon of milk?

a) 10-15 gallons  b) 400-500 gallons  c) 40-50 gallons

ANS: b) 400-500 gallons

11. How many upper front teeth does a cow have?

a) 12  b) 32  c) 20  d) none

ANS: d) none

12. What hormone causes the heifer or cow to come into heat?

a) progesterone  b) oxytocin  c) estrogen  d) testosterone

ANS: c) estrogen

13. In reference to the health of dairy cows, what do the initials D.A. stand for?

ANS: Displaced Abomasum

14. At her morning milking, a cow produced 43 pounds of milk. How many gallons of milk did she produce this morning?

ANS: 5 (Note: milk weighs 8.6 pounds per gallon)
15. After a calf has just been born, what should you do that will help prevent “joint ill” in the baby calf?

a) dip the calf’s navel in a 7% tincture of iodine solution  b) help the calf to stand up  c) dehorn the calf

ANS: a) dip the calf’s navel in a 7% tincture of iodine solution

16. Calcium and phosphorous are examples of:

a) fiber sources  b) protein sources  c) energy sources  d) minerals

ANS: d) minerals

17. Which of the following terms describes the act of calving or giving birth?

a) estrus  b) lactation  c) laminitis  d) parturition

ANS: d) parturition

18. The normal estrus cycle in a dairy cow is about:

a) 1 week  b) 2 weeks  c) 3 weeks  d) 4 weeks

ANS: c) 3 weeks

19. Which of the following is found in the greatest amount in cottonseed meal?

a) starch  b) fiber  c) fat  d) protein

ANS: d) protein

20. What hormone is responsible for milk letdown?

a) progesterone  b) adrenaline  c) oxytocin

ANS: c) oxytocin

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. Which of the following is the name of the portion of a cow’s back closest to the withers?
   a) rump  
   b) brisket  
   c) chine  
   d) loin

ANS: c) chine

2. Which nutrient is essential for good muscle development?

ANS: Protein

3. What is used to freeze and store semen for artificial insemination?

ANS: Liquid nitrogen