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 compartment of the cow’s stomach is the largest and functions as a fermentation vat?

ANS: Rumen

2. When you enter the show ring with your dairy animal, should you walk clockwise or counterclockwise?

ANS: Clockwise

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

ANS: Alveoli

4. In what city and state is the National 4-H Dairy Cattle Judging Contest held?

ANS: Madison, Wisconsin

5. Where did the Ayrshire breed originate?

ANS: Scotland (county of Ayr)
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. How many upper front teeth does a cow have?
   a) 5   b) 12   c) 15   d) none
   ANS: d) none

2. Which one of the following is the main reason why you should keep newborn calves separate from each other?
   a) to reduce fighting among the calves   b) to prevent transmission of disease   c) to reduce labor costs
   ANS: b) to prevent transmission of disease

3. How much does one gallon of whole milk weigh?
   a) 7.6 pounds   b) 8.6 pounds   c) 9.6 pounds   d) 10.6 pounds
   ANS: b) 8.6 pounds

4. In reference to dairy cattle, what do the letters BVD stand for?
   ANS: Bovine Viral Diarrhea

5. Which of the following is an example of a mineral found in dairy cattle diets:
   a) choline   b) niacin   c) phosphorous   d) nitrogen
   ANS: c) phosphorous
6. On a feed analysis report, what do the initials **TDN** stand for?

ANS: Total Digestible Nutrients

7. Which of the following can help prevent mastitis in lactating dairy cows?

a) keeping the milk in the bulk tank below 38° F  
b) teat dipping  
c) using artificial insemination

ANS: b) teat dipping

8. When a cow comes down with “milk fever”, there is a large decrease of this mineral in the blood:

a) calcium  
b) selenium  
c) zinc

ANS: a) calcium

9. Which of the following often occurs in the milk when the lactating dairy cow is not being fed enough “effective fiber”?

a) milk fat (butterfat) percentage increases  
b) milk fat (butterfat) percentage declines  
c) milk fat (butterfat) percentage remains the same

ANS: b) milk fat (butterfat) percentage declines

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

ANS: Displaced Abomasum

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

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

ANS: c) protein

12. When cheese is made, what feed by-product is recovered?

ANS: Whey

13. What does the term “**parturition**” refer to?

a) the act of calving or giving birth  
b) milk fever  
c) laminitis  
d) lactation

ANS: a) the act of calving or giving birth
14. Which one of the following conditions can occur if you overfeed grain to a dairy cow?

a) brucellosis  b) acidosis  c) leptospirosis  d) coccidiosis

ANS: b) acidosis

15. What is the name of the cow side test that uses a four-compartment paddle to test a sample of milk to identify cows with mastitis?

a) CMT test  c) ELISA test  
b) DHI test  d) Johnes test

ANS: a) CMT test

16. What do we call the feed that a cow has regurgitated and is being re-chewed?

ANS: Cud

17. Normal milk is approximately what percent solids?

a) 20%  b) 25%  c) 13%  d) 5%

ANS: c) 13%

18. Which one of the following problems is caused when a baby calf has scours, and not enough fluids are absorbed from the intestinal tract.

a) dehydration  b) rumination  c) chelation

ANS: a) dehydration

19. The “ring test” conducted on milk samples is a screening test for what cattle disease?

ANS: Brucellosis (also known as Bangs disease)

20. When a calf nurses, what diverts the milk into the abomasum?

a) the small intestine  b) the esophageal groove  c) its tongue

ANS: b) the esophageal groove
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 do the letters DHIR stand for?
ANS: Dairy Herd Improvement Registry

2. What is the name of the waxy substance that is found in the teat duct (streak canal)?
ANS: Keratin

3. Name the county in North Carolina where the NCDA Piedmont Research Station is located.
ANS: Rowan County