**IL FFA Dairy Cattle Evaluation CDE Knowledge Test**

**2022**

**Genetics & Reproduction**

Answer each of the following questions individually and bubble your corresponding response on the scantron form. You may not confer with a teammate on this component. Read each question carefully.

1. Dairy replacement heifers should be bred to calve for the first time at what age?
   1. 15-18 mos
   2. 18-21 mos
   3. 21-24 mos
   4. 24-28 mos
2. How many days is the typical estrus cycle?
   1. 3-5 days
   2. 5-7 days
   3. 8-14 days
   4. 18-21 days
3. When artificially inseminating dairy cattle, where is the target location to deposit semen?
   1. Body of the uterus
   2. Vagina
   3. Cervix
   4. Uterine horn
4. What is the recommended temperature to have your water bath at for proper thawing of frozen semen?
   1. 78-85F
   2. 85-88F
   3. 90-95F
   4. 105-115F
5. How many days is the typical gestation length in dairy cattle?
   1. 120-132 days
   2. 270-282 days
   3. 285-296 days
   4. 305-365 days
6. Which of these would be the best indicator that a cow is in heat?
   1. Longer time laying down
   2. Increased milk production
   3. Higher milk fat percentage
   4. Standing to be ridden
7. When making mating decisions, which of these would be the easiest to select for and pass to the next generation?
   1. Feed efficiency
   2. Stature
   3. Milk protein percentage
   4. Foot & leg composite
8. What is the typical voluntary waiting period observed after calving and prior to first breeding?
   1. 7-10 days
   2. 21-32 days
   3. 45-60 days
   4. 90-120 days
9. Which hormone maintains pregnancy?
   1. Progesterone
   2. Prostaglandin
   3. Estrogen
   4. GnRH
10. What is the number one reason for culling dairy cows?
    1. Foot & leg problems
    2. Low milk production
    3. Reproductive failure
    4. Mastitis
11. Which of these options would improve reproductive success the fastest on your farm?
    1. Increasing milking times
    2. Changing feed more often
    3. Using herd bulls
    4. Increasing heat detection rate
12. When studying a bull proof and considering the linear data supplied on Foot & Leg Composite, what is the highest possible percent reliability that can be reported?
    1. 100%
    2. 99%
    3. 90%
    4. 78%
13. Which season has the most negative impact on reproductive success?
    1. Summer
    2. Fall
    3. Winter
    4. Spring
14. Which of these methods can be used to determine pregnancy of a cow?
    1. Calendar test
    2. Rectal palpation
    3. Body temperature
    4. Manure test
15. A heifer that is born twin to a bull is often:
    1. Polled
    2. Larger than the bull
    3. Sterile
    4. Stillborn
16. Which of these determines the sex of the calf?
    1. Dam
    2. Sire
    3. Both
    4. Neither
17. The period of time from when a cow has her first calf to her second calf is called:
    1. Gestational interval
    2. Lactational interval
    3. Calving interval
    4. Generational interval
18. You’re reviewing a list of bulls to use on your farm. One of them has a -0.5 DPR. What does DPR stand for?
    1. Dam Production Rate
    2. Dominant Protein Retention
    3. Daughter Pregnancy Rate
    4. Dairy Prediction Returns
19. After genomic testing a group of 5 calves, you find out that one of them carries the A2A2 gene. Which of the following is beneficial about the A2A2 gene that you may want to breed for?
    1. A2A2 cows gain weight faster
    2. A2A2 calves are less feed efficient
    3. A2A2 cows are polled
    4. A2A2 cows make milk with a protein that is easier to digest for humans
20. How many mL of semen are in a straw of sexed semen?
    1. .25 mL
    2. .5 mL
    3. 1.5 mL
    4. 5.0 mL