

2016 National FFA Dairy Cattle Event

Herd Record Evaluation

Select the one cow that best answers each of the following 10 questions.

For questions 1 through 10, use the “herd record evaluation” which is attached to the quiz.

1. Indicate which first lactation cow is having the least impact on the somatic cell count in the bulk tank.
2. Select the cow which is the most significantly overweight.
3. Determine the first lactation cow with the highest expectation among the cows for the value of a future lactation's production, relative to the herd average.
4. Select which cow will be the next one to be dried off after the testing date, assuming that breeding dates are accurate.
5. Indicate the cow having the most impact on the somatic cell count in the bulk tank.
6. Indicate which first lactation cow is potentially suffering from rumen acidosis.
7. Select the first lactation cow that will transmit the lowest expected breeding value to her offspring for milk.
8. Which cow has the highest mature equivalent for milk?
9. Indicate which cow has the highest index value that selects for the improvement of milk, fat, and protein yield, somatic cell score and productive life.
10. Which cow should be the next one to calve after the testing date, assuming normal gestation length?

2016 National FFA Dairy Cattle Event

Dairy Management Exercise

Select best answer for each of the following 40 questions.

1. Milk is composed of approximately what percent lactose?
A) 0%, B) 5%, C) 8.25%, D) 13.25%, E) 87.25%.
2. The precursor of this vitamin is beta-carotene and is found commonly in legumes and grasses. A) Vitamin E, B) Vitamin A, C) Vitamin D, D) Vitamin B, E) Vitamin K.
3. Lameness on a dairy farm can lead to higher culling rates, reduced reproductive performance, and lower milk yield. In order to manage lameness on your farm, you implement a locomotion scoring system using a scale from 1 to 5. What score would you give to a cow who is visibly lame, has an arched back and favors one or more feet?
A) 4 or 5, B) 3, C) 2, D) 1, E) All of the above.
4. Fertility, as measured by daughter pregnancy rate, is lowest in which breed?
A) Guernsey, B) Milking Shorthorn, C) Jersey, D) Brown Swiss, E) Holstein.
5. What is the major buffer produced by cows that assists in maintaining optimum rumen pH? A) Cellulose, B) Calcium, C) Phosphorus, D) Lipids, E) Saliva.
6. For lunch you have a glass of milk and notice that it has an oxidized flavor to it. In what part of the milk is this off-flavor found?
A) Butterfat, B) Lactose, C) Protein, D) Water, E) Minerals.
7. Beginning January 1, 2017 this practice will not be permitted under the Farmers Assuring Responsible management or FARM program.
A) Dehorning, B) Castrating, C) Eartagging, D) Taildocking, E) All of the above.
8. Which common ailment of dairy cows is medically known as tarsal hygroma?
A) Swollen hock, B) Dehydration, C) Acidosis, D) Lameness, E) Split toed.
9. It is often said you can't improve what you can't measure. The Brix refractometer is a tool used on many dairy farms to help estimate or measure what?
A) Wither height, B) Light quality, C) Cow's reaction time, D) Amount of bacteria in milk, E) Colostrum quality.
10. The Council on Dairy Cattle Breeding (CDCB) introduced a new genetic trait to the genetic evaluation system. The PTA of this trait indicates that daughters of a sire will be less likely to die on the farm. You will find this trait listed as the following on a sire proof:
A) Daughter pregnancy rate, B) Lifetime net merit, C) Cow livability, D) Productive Life, E) None of these is correct.
11. Historically, during what season is the demand for milk highest?
A) Spring, B) Summer, C) Fall, D) Winter, E) It is the same year round.
12. In 2015 which state had the most new dairy cows?
A) New Mexico, B) Wisconsin, C) South Dakota, D) Washington, E) Michigan.

13. Which of the following are tips that would improve the biosecurity on a dairy farm?
A) Stop unrecognized visitors, B) Accompany nonroutine visitors around during their visit, C) Verify all nonregular inspectors and contractors with picture IDs, D) Post biosecurity and no unmanned aircraft signs, E) All of the above.
14. In the past year a dairy herd has had an increase in the occurrence of milk fever. The nutritionist has recommended feeding anionic salts as a method of prevention. To solve the problem, they should be fed: A) At any time, B) Two weeks after calving, C) At calving, D) Two weeks before calving, E) At dry off.
15. This past winter while you were responsible for feeding the baby calves, you made what change in the normal diet of the calves when the average temperature was 15 degrees F for a few weeks. You supplemented the diet with additional?
A) Warm fresh milk, B) Electrolytes, C) Energy, D) Water, E) Vitamin C.
16. Drought stressed forages often contain toxic levels of what substance?
A) Phosphates, B) Nitrates, C) Butyric acid, D) Lactic acid, E) Potassium.
17. Excessive rates of pneumonia in dairy herds are often due to what?
A) Excessive sunlight exposure, B) Cold weather or drafts, C) Inadequate ventilation, D) Contaminated milk, E) All of the above.
18. The Journal of Dairy Science is the official publication of the international organization of educators, scientists and industry representatives who are committed to advancing the dairy industry. This organization is?
A) American Animal Science Association, B) American Dairy Association, C) International Dairy Producers, D) American Dairy Science Association, E) Dairy Herd Improvement Association.
19. Perinatal calf mortality is a significant problem in the dairy industry. What is this problem more commonly referred to as?
A) DOAs, B) Morbidity, C) Pneumonia, D) Stillbirths, E) All of the above.
20. If the heat detection rate is 50% and the conception rate is 25%, what is the pregnancy rate? A) 9%, B) 12.5%, C) 25%, D) 50%, E) It cannot be determined.
21. After harvesting your alfalfa, you take a soil test. The test shows your field is high in phosphorus and low in potassium. Which of the following fertilizers would you apply in order to meet the potassium requirement while preventing excess phosphorus run-off?
A) 0-0-44, B) 46-0-0, C) 12-12-12, D) 11-52-0, E) 18-14-24.
22. The condition in a dairy cow where the shoulder separates from the side of the cow and juts out sharply at the elbow is considered in what category of the 2009 PDCA Dairy Cow Unified Scorecard? A) Frame, B) Udder, C) Dairy Strength, D) Feet & Legs, E) Body Capacity.
23. When looking at genetic evaluations, the accuracy is expressed as a percentage and goes up as more progeny contribute to records. We refer to this as: A) Repeatability, B) Reliability, C) Predictability, D) Marketability, E) Heritability.

24. Recently your cows have been experiencing less production, lower butterfat, and sick cows that never seem to recover. What could be the cause of these symptoms?
A) Rumen Acidosis, B) Ketosis, C) Milk Fever, D) Johne's, E) Hardware.
25. Which dry period length will maximize production in the following lactation?
A) None, B) 30 days, C) 45 days, D) 50 days, E) 60 days.
26. You are responsible for the calf development program on a dairy farm. The farm's goal is to develop the rumen of the calf as fast as possible. To achieve this goal, you should feed the calves which of the following?
A) Milk only, B) Hay only, C) Grain only, D) Milk and grain, E) Milk and hay.
27. The best temperature for thawing frozen semen is considered to be: A) An ice bath, B) Room temperature, C) 75-80 degrees C, D) 92-96 degrees F, E) 92-96 degrees C.
28. While at the county fair you notice one of your heifers is not feeling well and is in need of treatment. After reading the product label you are using for treatment, you learn that the shot has to be given subcutaneously. Where is the injection site located on your heifer following beef quality assurance recommendations? A) In the muscle of the neck, B) In the vein, C) In the fat layer between the skin and muscle on the neck, D) In the nostril of the nose, E) In the fat layer between the skin and muscle on the rump.
29. Under the current method of pricing, which breed of cows, on average would yield the highest milk price per hundred weight?
A) Brown Swiss, B) Guernsey, C) Ayrshire, D) Jersey, E) Milking Shorthorn.
30. Beginning January 1, 2017 in order to purchase feed that uses medically important antimicrobial drugs such as a medicated milk replacer, you will need to obtain a VFD. What is a VFD? A) Veterinary Food Directions, B) Veterinary Feed Description, C) Veterinary Feed Directive, D) Veterinary Farmaceutical Description, E) None of the Above.
31. In order to obtain a VFD, a farmer must be able to prove what type of on-going relationship with their veterinary? A) Veterinary Client Patient Relationship (VCPR), B) Veterinary Animal Patient Relationship (VAPR), C) Telephone contact only, D) First name basis, E) Veterinary Contact Person Relationship (VCPR).
32. An increase in what compound is the result of rapid degradation of adipose tissue in the cow's body? A) Amino acids, B) Ketones, C) Fatty acids, D) Peptides, E) Ammonia.
33. One indicator that can be used as a sign of good reproduction in your dairy herd is how many cows are pregnant at all times. What percent should be pregnant?
A) 25%, B) 35%, C) 42%, D) 50%, E) 76%.
34. The following information is listed concerning a cow:
365 2X 42,345 3.7 1566 2.9 1228
Which of the following is not correct? A) 305 day lactation, B) Milked two times per day, C) Milk contained 3.7 % milk fat, D) Milk contained 2.9% protein, E) 42,345 pounds of milk produced.

35. What reproductive hormone tends to be high in lactating, pregnant cows?
A) Oxytocin, B) Progesterone, C) Prostaglandin, D) Relaxin, E) Estrogen.
36. If the MUN level is considered high, which nutrient is likely to be in excess?
A) Fats, B) Carbohydrates, C) Vitamins, D) Minerals, E) Protein.
37. Which portion of the cow's digestive tract is most subject to "twisting"?
A) Abomasum, B) Omasum, C) Reticulum, D) Rumen, E) Duodenum.
38. After receiving your DHIA herd summary test data, you are concerned about the increasing number of cows with mastitis. You have the cows cultured and discover that the cause is environmental pathogens. To help decrease this occurrence you invite your veterinarian to visit your farm to make recommendations. Which of the following observations by your veterinarian is the cause of the increased cases of mastitis?
A) Using sand as a bedding source, B) A new employee is prepping the milking cows by spraying the teats with water but not drying the teats to remove water and excess manure, C) Post dip is used after milking, D) Cows are fed after milking to keep them standing at least 30 minutes post milking, E) Cows are treated at dry off.
39. Which of the following is not a primary organism associated with mastitis:
A) Staphylococcus aureus, B) Streptococcus agalactia, C) Streptococcus uberis, D) Mycobacterium Paratuberculosis, E) Klebsiella pneumoniae.
40. An example of a Class III use for milk would be to make: A) Hard cheese, B) Ice cream, C) Milk powder, D) Cottage cheese, E) A class III use does not exist.

2016 National FFA Dairy Cattle Career Development Event

Official answers for Dairy Management Exercise:

- | | |
|-------|-------|
| 1. B | 21. A |
| 2. B | 22. A |
| 3. A | 23. B |
| 4. A | 24. A |
| 5. E | 25. E |
| 6. A | 26. D |
| 7. D | 27. D |
| 8. A | 28. C |
| 9. E | 29. D |
| 10. C | 30. C |
| 11. C | 31. A |
| 12. E | 32. B |
| 13. E | 33. D |
| 14. D | 34. A |
| 15. C | 35. B |
| 16. B | 36. E |
| 17. C | 37. A |
| 18. D | 38. B |
| 19. D | 39. D |
| 20. B | 40. A |

2017 National FFA Dairy Cattle Event

Dairy Management Exercise

Select best answer for each of the following 40 questions.

1. This cheese is the most popular American-type cheese.
A) Cheddar, B) Mozzarella, C) Swiss, D) Monterey Jack, E) Cream Cheese.
2. What type of mastitis is the primary reason antibiotics are administered to dairy cows?
A) Sub-Clinical, B) Clinical, C) Acute, D) Chronic, E) None of the above.
3. For question two the common symptoms of this type of mastitis are?
A) Flakes, B) Clots, C) Hot quarters, D) Watery milk, E) All of the above.
4. What is the most effective measure to prevent new cases of mastitis infections from occurring?
A) Teat-dipping, B) Dry-cow antibiotic treatment, C) Foot trimming, D) Both A&B, E) Both B&C.
5. Lameness on a dairy farm can lead to higher culling rates, reduced reproductive performance, and lower milk yield. In order to manage lameness on your farm, you implement a locomotion scoring system using a scale from 1 to 5. What score would you give to a cow who stands and walks normally and all feet are placed with purpose?
A) 4 or 5, B) 3, C) 2, D) 1, E) All of the above.
6. One of your recently fresh cows is ill. She has been receiving a high grain, low roughage diet. The consistency of the small amount of manure she produces is "putty-like". Your veterinarian detects a "pinging" sound when using his stethoscope. What is the most likely diagnosis?
A) Ketosis, B) Milk Fever, C) Grass Tetany, D) Left Displaced Abomasum, E) Rumen Acidosis.
7. In order to prevent hock lesions and improve incidence of lameness, which is the best bedding material to use?
A) Sand, B) Straw, C) Wood shavings, D) Stall mats, E) Recycled manure.
8. Tarsal hygroma is which of the following common ailments in dairy cows?
A) Swollen hock, B) Dehydration, C) Acidosis, D) Lameness, E) Split toed.
9. This micro-mineral has been shown to be effective in decreasing the rate of foot rot, heel cracks, and laminitis in dairy cattle.
A) Copper, B) Iodine, C) Selenium, D) Manganese, E) Zinc.
10. What dairy breed is the leader in Cheese Merit dollars?
A) Guernsey, B) Milking Shorthorn, C) Ayrshire, D) Brown Swiss, E) Holstein.
11. Which of the following PTA traits was introduced in August 2017 for service sires representing the influence the service sire is expected to have on the number of days his mates carry their calves during their pregnancies.
A) DPR, B) GL, C) SCR, D) SB, E) PL.

12. You recently became the manager of dry cows at a local dairy farm. Not only do you care for the dry cows but also for newborn calves. One issue that you must address immediately is decreasing calf mortality within the first 48 hours. The first purchase you make for the farm is a Brix refractometer to help estimate or measure what?
A) Wither height, B) Colostrum quality, C) Cow's reaction time, D) Amount of bacteria in milk, E) Antibody levels in the blood.
13. At what point during the dry period does a cow's colostrum production cease?
A) At the beginning of the dry period, B) About a week after having the calf, C) At the start of labor, D) A week before having the calf, E) None of the above.
14. Colostrum provides antibodies to newborn calves, but it is also 4 times higher in what important nutrient than normal cow's milk?
A) Water, B) Fats, C) Carbohydrates, D) Protein, E) All of the above.
15. Absorption of antibodies from colostrum primarily takes place in which compartment of a calf's stomach?
A) Omasum, B) Small Intestine, C) Rumen, D) Reticulum, E) Abomasum.
16. In 2015, which state had the most organic dairy farms?
A) Idaho, B) Wisconsin, C) South Dakota, D) Washington, E) Michigan.
17. What trait is defined as adequate constitution with front legs straight, wide apart and squarely placed on the Dairy Cow Unified Scorecard?
A) Front End, B) Rump, C) Dairy Strength, D) Chest Floor, E) Body Capacity.
18. You are the dry cow manager on your dairy farm. You begin to notice after calving cows are experiencing a loss in body condition and are not eating enough dry matter to meet their energy needs to produce milk. After discussing these symptoms with your veterinarian, a blood test also shows the cows with a lower than normal blood glucose, high ketones and free fatty acid levels. What could be the cause of these symptoms?
A) Rumen Acidosis, B) Ketosis, C) Milk Fever, D) Johne's, E) Hardware.
19. To treat the metabolic disorder described in #18 which of the following is fed or administered to the cow?
A) Calcium, B) Propylene glycol, C) Antibiotics, D) Water, E) Nothing the disorder will fix itself.
20. What may be added to feeds as an aid in prevention of the condition described in #18?
A) Calcium, B) Phosphorus, C) Vitamin A, D) Vitamin K, E) Niacin.
21. For the condition described in question 18, in addition to fiber what other ration component is important in minimizing fresh cows' negative energy balance?
A) Starch, B) Protein, C) Water, D) Calcium, E) All of the above.
22. What percent of the average U.S. dairy cow diet could be digested by a human?
A) 0%, B) 10%, C) 20%, D) 50%, E) 100%.

23. After reviewing your recent breeding history for the past month, you contact your nutritionist because you have identified the need to improve conception rates in your herd. She suggests you add what to your rations to improve conception rates because of larger ovarian follicles capable of producing more estrogen, larger corpus luteum and a decrease in embryonic loss?
A) Fats, B) Carbohydrates, C) Vitamins, D) Minerals, E) Protein.
24. Your favorite cow has gone off feed recently. The veterinary says she has ingested pieces of metal and has given her a magnet. In which compartment of the stomach is metal, most often found and would benefit from the magnet?
A) Abomasum, B) Omasum, C) Reticulum, D) Rumen, E) Duodenum.
25. An example of a Class IV use for milk would be to make:
A) Hard cheese, B) Ice cream, C) Chocolate Milk, D) Dried milk powder, E) A class IV use does not exist.
26. A poorly maintained ventilation system on your farm can result in what percent loss of air movement?
A) 10%, B) 30 to 50%, C) 70-80%, D) 85-95%, E) There is no noticeable differences.
27. When this cell is mature, it is the largest in a dairy cow's body.
A) Skin, B) Blood, C) Oocyte or egg, D) Somatic Cell, E) White blood cells.
28. This non-profit organization founded in 1915 funded through the national dairy checkoff program continues to be, committed to providing science-based education about the nutrition and health benefits that dairy foods provide.
A) USDA, B) FDA, C) Federal Milk Market Orders, D) EPA, E) National Dairy Council.
29. You recently received a pedigree for a heifer in your herd. When looking at the pedigree you noticed some of the traits had a zero breeding value. So, when you compare her to the U.S. cow population, she is considered what for these traits?
A) Above average, B) Average, C) Below average, D) An outstanding heifer, E) None of the above.
30. It is time to load your cows to bring them to come home to calve. To be successful in moving the cows you make sure to be mindful of the area where the cows do not want any foreign objects entering. This area is commonly known as?
A) Blind spot, B) Flight zone, C) Comfort zone, D) Point of balance, E) Both A and C.
31. Which of the following is not a part of the cow's digestive tract?
A) Esophagus, B) Omasum, C) Mouth, D) Small Intestine, E) Alveoli.
32. Getting dairy cows bred on the farm is a top priority. What process is used to determine if a cow is pregnant by inserting an arm into the rectum of a cow to feel the reproductive tract?
A) Palpation, B) CMT, C) Prolapse, D) Parturition, E) Involution.
33. Which of the following is **NOT** considered a micro mineral?
A) Phosphorus, B) Potassium, C) Calcium, D) Manganese, E) All but D.

34. Which of the following diseases is caused by a species of mycobacterium?
A) Johnes, B) Brucellosis, C) Tuberculosis, D) Both A and C, E) All of them.
35. What is the “normal” rectal temperature of a dairy cow?
A) 94-95 degrees F, B) 98-99 degrees F, C) 101-102 degrees F, D) 102-103 degrees F, E) 105-106 degrees F.
36. What is the process called whereby fat globules are broken down to a small, uniform size?
A) Pasteurization, B) Clarification, C) Equalization, D) Homogenization, E) Standardization.
37. Milk over what somatic cell count cannot be legally shipped.
A) 200,000, B) 400,000, C) 500,000, D) 750,000, E) 1,000,000.
38. Which hormone is responsible for milk letdown hormone?
A) Oxytocin, B) Estrogen, C) Prolactin, D) Adrenalin, E) Progesterone.
39. Which of the following is not an annual plant used as a source of forages for dairy?
A) Corn, B) Alfalfa, C) Wheat, D) Oats, E) Ryegrass.
40. Which of the following factors should be considered when planning a waste management system?
A) Environmental, B) Social, C) Operational, D) Legal Requirements, E) All of the above.

2017 National FFA Dairy Cattle Career Development Event

Official answers for Dairy Management Exercise:

- | | |
|-------|-------|
| 1. A | 21. A |
| 2. B | 22. C |
| 3. E | 23. A |
| 4. D | 24. C |
| 5. D | 25. D |
| 6. D | 26. B |
| 7. A | 27. C |
| 8. A | 28. E |
| 9. E | 29. B |
| 10. E | 30. B |
| 11. B | 31. E |
| 12. B | 32. A |
| 13. C | 33. E |
| 14. D | 34. D |
| 15. E | 35. C |
| 16. B | 36. D |
| 17. A | 37. D |
| 18. B | 38. A |
| 19. B | 39. B |
| 20. E | 40. E |

2018 National FFA Dairy Cattle Event

Dairy Management Exercise

Select best answer for each of the following 40 questions.

1. An example of a Class I use for milk would be to make:
A) Hard cheese, B) Ice cream, **C) Chocolate Milk**, D) Dried milk powder, E) Butter.
2. Welcome to F.F.A. Dairy as the new calf manager taking care of calves from birth to weaning. The first change you make on the dairy is in regards to the preparation of the calving pen. You decide to use sand as the base for the pen and then bed the pen with how many of inches of long straw?
A) 2 inches, B) 4 inches, **C) 6 inches**, D) 10 inches, E) 12 inches.
3. F.F.A. Dairy has had many issues with newborn calves getting sick within the first 4 weeks. The first step you take to address this issue is to measure the quality of colostrum using which instrument?
A) Brix refractometer, B) Thermometer, C) pH Meter, D) Plate Meter, E) Cryoscope.
4. To successfully deliver colostrum to newborn calves, you feed them using which of the following tools that the USDA has identified as the most common:
A) Bottle, B) Tube, C) Bucket, D) Letting the calf nurse the cow, E) All of the above.
5. After the quality of colostrum is determined and fed to the newborn calf, immunoglobulins are absorbed in what part of the digestive system?
A) Omasum, **B) Small Intestine**, C) Rumen, D) Reticulum, E) Abomasum.
6. Calves are born with a natural insulator trapping air and creating a boundary between the body and chilly outside air. Which part of the calf is this?
A) Head, B) Feet and legs, C) Depth of rib, D) Rump, **E) Hair Coat**.
7. As the calf manager keeping the calves healthy is a high priority, to achieve this you install this common item used to bring in fresh air, while removing moisture, dust and gases in warm weather?
A) Doors, **B) Fans**, C) Insulation, D) Individual calf stalls, E) All of the above.
8. For the common item you installed in question 7, how often should the housings and individual parts be cleaned for optimal performance?
A) Every 6 months, **B) Every year**, C) Every 2 years, D) Every day, E) It is not needed because it is self-maintaining.
9. A poorly maintained ventilation system on your farm can result in what percent loss of air movement?
A) 10%, **B) 30 to 50%**, C) 70-80%, D) 85-95%, E) There is no noticeable differences.
10. This has been identified as the most visible well-being problem in the dairy industry today?
A) Dehorning, B) Breeding cows by A.I., C) Feeding calves with a bucket, **D) Lameness**, E) All of the above.

11. If the heat detection rate is 60% and the conception rate is 30%, what is the pregnancy rate? A) 9%, B) 20%, **C) 18%**, D) 30% E) 45%.
12. Lameness on a dairy farm can lead to higher culling rates, reduced reproductive performance, and lower milk yield. In order to manage lameness on your farm, you implement a locomotion scoring system using a scale from 1 to 5. What score would you give to a cow who has pronounced arching of back, reluctant to move with almost complete weight transfer off the affected limb?
A) 5, B) 3, C) 2, D) 1, E) All of the above.
13. Which milk protein is being marketed as a new dairy product that is easily digestible and comparable to human breast milk? A) Whey, B) A1 beta-casein, **C) A2 beta-casein**, D) Kappa casein, E) Beta-lactoglobulin.
14. What tissue is monitored for residual drug levels at slaughter?
A) Kidneys, B) Liver, C) Large Intestine, D) Rumen, E) Heart.
15. Which dairy breed has the highest percentage of the A2 milk protein gene and which has the least? A) Holstein, Jersey, B) Brown Swiss, Holstein, C) Brown Swiss, Guernsey, D) Guernsey, Jersey, **E) Guernsey, Holstein**.
16. You have been invited to a local dairy to consult on locomotion issues that several of the cows have been having. The hoof trimmer tells you he is finding a smelly infection of the foot between the claws and toes, long, overgrown and deformed toes, and heel cracks during trimming. In order to prevent these type of problems in the future, you recommend which micro-mineral to be added to the ration.
A) Selenium, **B) Zinc**, C) Copper, D) Manganese, E) Iodine.
17. What is considered the universal standard criteria for breeding dairy heifers?
A) Body weight, B) Age, C) Height at the withers, D) Rump Width, E) All of the above.
18. F.F.A Dairy has recently been experiencing lower milk production, higher somatic cell counts, and slower milk time. You have been asked to help solve this problem. After you observe the milking procedures, the cause of the problem is identified as:
A) No pre-dip being used prior to milking, B) Dirty udders, **C) Too long pre-milking stimulation**, D) Milking dry teats, E) All of the above.
19. To help address the problems identified in #18, you help the milkers adopt a new milking procedure. Here are 5 steps you have suggested: 1) Dry teats completely with an individual towel, 2) Dip teats immediately after unit removal, 3) Pre-dip teats and provide 20-30 second contact time, 4) Attach milking unit within 1 minute after the start of stimulation, 5) Check foremilk and udder for mastitis. The order the milkers should perform these steps are:
A) 1, 2, 3, 4, 5, B) 5, 4, 3, 2, 1, C) 5, 3, 2, 4, 1, **D) 5, 3, 1, 4, 2**, E) Order doesn't matter as long as all 5 steps happen.
20. During step 5 listed in #19, the milkers find milk with flakes, clots, and the presence of blood. This is an indication of what problem:
A) Sub-clinical mastitis, **B) Clinical mastitis**, C) Acute mastitis, D) Chronic mastitis, E) All of the above.

21. What type of mastitis is the primary reason antibiotics are administered to dairy cows?
A) Sub-clinical mastitis, **B) Clinical mastitis**, C) Acute mastitis, D) Chronic mastitis,
E) All of the above.
22. In 2017, which state produced the most milk per cow?
A) Idaho, B) Wisconsin, C) South Dakota, D) Washington, **E) Michigan**.
23. What trait is defined as deep and wide showing capacity for vital organs, with well sprung fore ribs on the Dairy Cow Unified Scorecard?
A) Front End, B) Heart Girth, C) Dairy Strength, **D) Chest Floor**, E) Body Capacity.
24. What is known as the use of technologies to measure physiological behavioral, and production indicators on individual animals to improve management strategies and farm performance?
A) On site dairy production, **B) Precision dairy farming**, C) GMOs, D) DHIA,
E) Individual cow side dairy farming.
25. Examples of the type of farming described in #24 are:
A) Pedometers, B) Accelerometers, C) Milk Conductivity indicators, D) Daily body weight measurements, **E) All of the above**.
26. A benefit of the type of farming described in #24 is?
A) Decreased efficiency, B) Increased Costs, **C) Improved animal health and well-being**, D) Less objective observations, E) None of the above.
27. What metabolic disorder is caused by a deficiency of blood calcium related to an imbalance of calcium, phosphorus, and Vitamin D?
A) Parturient paresis, B) Ketosis, C) Grass Tetany, D) Fatty Liver, E) Displaced Abomasum.
28. As a cow's lactation begins, the disorder described in # 27 usually occurs how many hours after calving?
A) Less than 12 hours, **B) 24 to 72 hours**, C) 80 to 120 hours, D) more than 120 hours,
E) Immediately after birth.
29. F.F.A Dairy has turned out their high producing cows on lush, green pastures earlier this spring. The herds person went to get the cows for milking and noticed the cows exhibiting an uncoordinated gait, nervousness, muscle spasms, staggering, and after milking decreased milk yield. What could be causing these symptoms?
A) Parturient paresis, B) Ketosis, **C) Grass Tetany**, D) Fatty Liver, E) Displaced Abomasum.
30. The condition described in #29 is caused by a deficiency in what?
A) Magnesium, B) Calcium, C) Phosphorus, D) Potassium, E) Protein.
31. 80% of the stomach is made up by this compartment where fermentation occurs and carbon dioxide and methane are produced.
A) Abomasum, B) Omasum, C) Reticulum, **D) Rumen**, E) Duodenum.

32. What is the process called that heats raw milk to 161 degrees Fahrenheit for 15 seconds to destroy any disease producing bacteria that might be present?
A) Pasteurization, B) Clarification, C) Equalization, D) Homogenization, E) Standardization.
33. What dairy breed has been noted to have the following strengths: high fertility, young age at first calving, calving ease, and excellent heat tolerance?
A) Guernsey, B) Milking Shorthorn, C) Ayrshire, D) Brown Swiss, **E) Jersey**.
34. If you are providing water in the return alley from the milking parlor for cows, how many linear feet of watering space is required per cow?
A) 6 inches, B) 1 foot, C) 18 inches, **D) 2 feet**, E) 40 inches.
35. What disaccharide is formed from the combination of glucose and galactose?
A) Fructose, B) Sucrose, **C) Lactose**, D) Glucagon, E) Lactase.
36. Recently your cows have been experiencing less production, lower butterfat, and sick cows that never seem to recover. What could be the cause of these symptoms?
A) Ketosis, B) Milk Fever, C) Johne's, D) Hardware, **E) Rumen Acidosis**.
37. Which of the following would be considered a voluntary reason for culling a dairy cow?
A) non-breeder, B) mastitis, **C) low production**, D) crippled, E) All of the above.
38. The freezing point of milk can be altered by adding water to milk. What instrument is used to determine the freezing point of milk?
A) Brix refractometer, B) Thermometer, C) pH Meter, D) Plate Meter, **E) Cryoscope**.
39. Which condition is a result of the fetal membranes remaining within the uterus for an extended period of time after calving?
A) Retained Placenta, B) Involution, C) Separation of tissues, D) Metritis, E) Endometritis.
40. SPC is a measure of bacteria counts in milk. What do the letters SPC stand for?
A) Standard plate count, B) Somatic pasteurization count, C) Secondary preliminary count, D) Super plate count, E) Super preliminary count.



Dairy Cattle Evaluation and Management Career Development Event

Created: Jan-20

Select the best answer for each of the following 40 questions. Best of luck!

DAIRY MANAGEMENT EXERCISE

1. Holstein heifers should calve at _____ months of age.
 - A. 15
 - B. 18
 - C. 12
 - D. 24
 - E. 26

2. You are dealing with an environmental mastitis problem on the farm. Your vet noticed that the milking staff has incorrect predip technique. He recommends that the predip should stay on the teats _____ for effective environmental mastitis causing pathogen control.
 - A. 5-10 seconds
 - B. 15-30 seconds
 - C. 30-60 seconds
 - D. 60-90 seconds

3. Which one of the following is the minimum amount of silage that should be removed from the exposed surface of a bunker silo each day to prevent spoilage?
 - A. 2 inches
 - B. 6 inches
 - C. 12 inches
 - D. 24 inches

4. High concentrate and low roughage rations may result in
 - A. displaced abomasum
 - B. acidosis
 - C. rumen parakeratosis
 - D. low milk fat
 - E. all of the above
5. If a cow ate 38 lbs of silage that was 64% moisture, how many pounds of dry matter were consumed?
 - A. 14
 - B. 24
 - C. 40
 - D. 67
6. Excess Ca fed during the dry period may induce which of the following metabolic problems?
 - A. Ketosis
 - B. Metritis
 - C. Displaced Abomasum
 - D. Parturient Paresis
7. Fat contains _____ times more calories per unit than a similar amount of carbohydrates, based on gross energy.
 - A. 9
 - B. 5
 - C. 4.25
 - D. 2.25
8. What is the highest possible percent reliability in a sire proof?
 - A. 60%
 - B. 80%
 - C. 90%
 - D. 99%
 - E. 100%

9. What hormone is released by a CIDR?
- A. Estrogen
 - B. Progesterone
 - C. Prostaglandin
 - D. GnRH
10. The corpus luteum produces progesterone to maintain pregnancy and is located:
- A. On the ovary
 - A. On the uterus
 - B. On the oviduct
 - C. Near the hypothalamus
11. On the anterior pituitary Genomic testing is having a significant impact on the dairy genetics business. Running a 3K SNP test has an average 60% reliability of genetic potential on how many genetic markers?
- A. 300
 - B. 3,000
 - C. 30,000
 - D. 300,000
12. Which of the following would be a typical VWP?
- A. 10-30 day
 - B. 45-60 days
 - C. 60-70 days
 - D. 80-100 days
13. 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 28%. How many pounds of dry matter are in one ton (2000 pounds) of the silage?
- A. 680
 - B. 560
 - C. 600
 - D. 280

14. Which of the following is the name of the part of a cow's back that lies between the withers and the loin?
- A. Rump
 - B. Thurl
 - C. Poll
 - D. Chine
15. Switching from 2X to 3X milking, it can be expected to increase production by how much?
- A. No change
 - B. About 5%
 - C. About 15%
 - D. About 30%
16. The dairy industry average cull rate is _____ %.
- A. 5-8
 - B. 10-15
 - C. 25-35
 - D. 35-50
17. How many pounds of water does a cow need to consume to produce one pound of milk?
- A. 5 to 1 pounds
 - B. 4 to 6 pounds
 - C. 2 to 3 pounds
 - D. 10 to 12 pounds
18. The hormone involved with long-day lighting, is released by the pineal gland and is used to set
- A. an animal's "internal clock."
 - B. melatonin
 - C. bovine somatotropin progesterone
 - D. estrogen oxytocin

19. What is the maximum length of time a cow should be in the holding area for one milking?
- A. 30 minutes
 - B. 60 minutes
 - C. 120 minutes
 - D. 180 minutes
20. What is the minimum bunk space per fresh cow in a fresh cow group?
- E. 12 inches
 - A. 18 inches
 - B. 24 inches
 - C. 30 inches
21. Which of the following could be fed to specifically improve hoof health and hardness?
- A. Carotene Biolyte
 - B. MGA
 - C. Vitamin R
 - D. Biotin
22. Soybean meal contains about % CP.
- A. 32
 - B. 38
 - C. 48
 - D. 54
23. If you are lacking this trace mineral RP's may occur more often.
- A. Ca
 - B. Selenium
 - C. Vitamin E
 - D. Potassium

24. Which of the following tests might indicate inefficient use of dietary protein?
- A. MUN
 - B. DHI
 - C. ELISA
 - D. NEFA
 - E. All of the above
25. When reading a genetic evaluation of a bull, Productive Life (PL) is indicated as the future Productive Life of the bull's daughters. The bull Henry has a PL score of +1. On average, how much longer will his daughters remain productive in the herd?
- A. 1 day
 - B. 1 week
 - C. 1 month 1 year
 - D. 2.25 years
26. You take a sample of milk from your bulk tank and test it using the Delvotest or the Penzyme test. What are you testing the milk for?
- A. Bacteria
 - B. Antibiotics
 - C. SCC
 - D. Type of mastitis
27. In a 300 cow breeding herd with a 50% conception rate, calculate how many cows would need to be bred the third time?
- A. 25
 - B. 50
 - C. 75
 - D. 100

28. The letters DHIA stand for:
- A. Dry Holstein Index Actualization
 - B. Daily Herd Increase Assessment
 - C. Dairy Herd Information Association
 - D. Double Holstein Index Agreement
 - E. Dairy Holstein Index Association
29. A dairy cow is producing 90 pounds of milk per day that contains 4% fat. How much fat is she producing daily?
- A. 4 pounds
 - B. 4.6 pounds
 - C. 3.6 pounds
 - D. 3 pounds
30. In reference to dairy and livestock farms, what does CAFO stand for?
- A. Cows and Fat Cattle Feedlot
 - B. Ordinance Cattle Animals Fending Off
 - C. Concentrated Animal Feeding Operations
 - D. California Feedlot Ordinance
31. Which of the following could be used to increase heat detection rate?
- A. Tail chalking
 - B. Ovsynch
 - C. Kamars
 - D. Milk hormone testing
 - E. All of the above
32. Calves should be weaned when they are consuming _____ pounds of calf starter for 2-3 consecutive days.
- A. 1-3
 - B. 4-5
 - C. 5-7
 - D. 7-10

33. What would be the ideal amount of time a cow would spend per day laying down?
- A. 50%
 - B. 30%
 - C. 20%
 - D. 10%
34. One milking robot should be able to handle about how many cows?
- A. 20 to 30 cows
 - B. 150 to 200 cows
 - C. 110 to 115 cows
 - D. 60 to 70 cows
35. Standard plate count is a measure of bacteria in milk. What is the legal limit?
- A. 100,000
 - B. 400,000
 - C. 750,000
 - D. 1,000,000
36. Oxytocin initiates milk let down and is important to maximize parlor efficiency. Which of these steps will initiate oxytocin production?
- A. Cleaning teat ends
 - B. Forestripping
 - C. Good cow preparation
 - D. All of the above
37. Your cooling fans in the freestall barn should be set to run continuously once the air temperature reaches _____ ?
- A. 70 F
 - B. 61 F
 - C. 83 F
 - D. 92 F

38. What tool might be used to determine proper forage length of chop?
- A. Penn State Particle Separator
 - B. Forage analysis
 - C. Ruler
 - D. CMT
 - E. None of the above
39. What is the major cause of death in calves that are scouring?
- A. alkaline stomach
 - B. lack of energy
 - C. high fever
 - D. dehydration
40. What is the term for the condition when an excessive amount of lymph fluid accumulates between the skin and the secretory tissue of the udder in a cow after calving?
- A. Edema
 - B. Ketosis
 - C. milk fever
 - D. lymphoma



Dairy Cattle Evaluation Career Development Event

Created: Apr-20

DAIRY MANAGEMENT EXAM KEY\HERD RECORD KEY

Question	Answer	Point Value	Standard	Standard	Standard
1.	D	3	AS.04.01.02.c		
2.	C	3	AS.07.01.010.c		
3.	B	3	AS.02.0101.c		
4.	E	3	AS.03.02.01.c		
5.	A	3	AS.03.02.02.c		
6.	D	3	AS.03.02.02.c		
7.	D	3	AS.03.02.01.c		
8.	D	3	AS.01.02.03.c		
9.	B	3	AS.06.02.03.c		
10.	A	3	AS.06.03.01.a		
11.	B	3	AS.04.02.03.c		
12.	B	3	AS.04.03.02.c		
13.	B	3	AS.03.02.01.b		
14.	D	3	AS.06.01.03.a		
15.	C	3	AS.06.03.02.b		
16.	C	3	AS.06.02.03.c		
17.	B	3	AS.03.02.02.c		
18.	A	3	AS.06.02.03.a		
19.	B	3	AS.02.02.01.a		
20.	C	3	AS.02.02.01.a		
21.	E	3	AS.03.01.01.b	AS.07.01.03.a	
22.	C	3	AS.03.02.01.a		
23.	B	3	AS.03.01.01.a	AS.07.01.03.a	
24.	A	3	AS.03.03.03.c		
25.	C	3	AS.04.02.02.c		

DAIRY MANAGEMENT EXAM KEY\HERD RECORD KEY

Question	Answer	Point Value	Standard	Standard	Standard
26.	B	3	AS.02.02.01.a		
27.	C	3	AS.04.03.02.c		
28.	C	3	ABS.01.03.01.c		
29.	C	3	AS.03.03.01.c		
30.	C	3	ABS.01.03.01.c		
31.	E	3	AS.04.03.03.c		
32.	A	3	AS.06.03.01.c		
33.	A	3	AS.07.01.02.a		
34.	D	3	AS.02.02.01.c		
35.	A	3	AS.02.02.01.c		
36.	D	3	AS.06.02.03.c		
37.	A	3	AS.05.01.02.b		
38.	A	3	AS.03.02.01.b		
39.	D	3	AS.07.01.03.a		
40.	C	3	AS.07.01.03.a		
41.	A	3	AS.01.02.03.a		
42.	C	3	AS.01.02.03.a		
43.	D	3	AS.07.01.02.c		
44.	D	3	AS.01.02.03.b		
45.	B	3	AS.01.02.03.b		
46.	C	3	AS.01.02.03.b	AS.02.02.01.c	
47.	A	3	AS.02.02.01.c	AS.04.03.01.c	
48.	D	3	AS.07.01.01.c		
49.	B	3	AS.04.03.04.c		
50.	A	3	AS.04.02.02.c		



2021 NATIONAL FFA DAIRY CATTLE EVENT

Dairy Management Exercise

Select best answer for each of the following 40 questions.

1. An example of a Class III use for milk would be to make _____.
 - A. Hard cheese
 - B. Ice cream
 - C. Chocolate Milk
 - D. Dried milk powder
 - E. Butter

2. This has been identified as the most visible well-being problem in the dairy industry today?
 - A. Dehorning
 - B. Breeding cows by A.I.
 - C. Lameness
 - D. Feeding calves with a bucket
 - E. All of the above.

3. Dairy Management, Inc. (DMI) is a nonprofit organization formed by the National Dairy Board and United Dairy Association. It conducts programs in integrated marketing, communications, promotion, and research for U.S. Dairy Farmers. Which of the following organization is not a part of the DMI umbrella?
 - A. American Dairy Association
 - B. American Dairy Science Association
 - C. National Dairy Council
 - D. U.S. Dairy Export Council
 - E. None of the above because they are all a part of the DMI umbrella.

4. If the heat detection rate is 50% and the conception rate is 30%, what is the pregnancy rate?
- A. 15%
 - B. 20%,
 - C. 18%,
 - D. 30%
 - E. 45%.
5. Lameness on a dairy farm can lead to higher culling rates, reduced reproductive performance, and lower milk yield. In order to manage lameness on your farm, you implement a locomotion scoring system using a scale from 1 to 5. What score would you give to a cow who stands with flat back, but arches when walking and gait is slightly abnormal?
- A. 5
 - B. 3
 - C. 2
 - D. 1
 - E. All of the above.
6. What term describes the time span between first calving and culling?
- A. Productive life
 - B. Culling Rate
 - C. Lifetime Production
 - D. Net Merit
 - E. All of the above
7. Before applying manure to any crop field, manure testing (measuring nutrient content) is recommended to help which of the following?
- A. Reduce fertilizer purchases
 - B. Prevention of overapplication of nutrients in excess of crop requirements
 - C. Determine P and K amounts in the manure
 - D. All of the above
 - E. None of these reasons are important reasons why manure testing is needed.

8. What trace mineral is found in very low levels in all forages and is necessary for a number of body functions and disease resistance as well as being an essential constituent of blood?
- A. Potassium
 - B. Phosphorus
 - C. Zinc
 - D. Nitrogen
 - E. Copper
9. The local veterinary has invited you to do a herd visit with him to determine why there is an increase in mastitis. You are asked to observe the milking parlor and procedures. The employees yell and scream at the cows to get them to come in the parlor, while they are milking, and when they leave the parlor. Pre-dip is applied to the teats, cleaned and milking units attached within 1 minute. Milk let down is delayed after the milking unit is attached. You suspect the reason why the cows are not letting milk down and getting mastitis is a result of:
- A. Too much oxytocin being produced
 - B. The excessive screaming and yelling is causing the cows to produce too much prolactin
 - C. The excessive noise is upsetting the cows causing epinephrine to be produced interfering with milk letdown
 - D. The excessive noise is causing too much estrogen to be produced and preventing milk letdown
 - E. All of the above
10. The world's largest yogurt maker is?
- A. Prairie Farms,
 - B. Nestle USA
 - C. Danone
 - D. Horizon
 - E. Dairy Farmers of America

11. What term is used to describe a function of the total time a cow spends eating per day multiplied by the rate at which the animal consumes that feed?
- A. Rumination Rate
 - B. Feed intake
 - C. Feed Uptake
 - D. Eating Rate
 - E. Digestion
12. Which of the following dairy breeds originated from a continental European country?
- A. Ayrshire
 - B. Brown Swiss
 - C. Guernsey
 - D. Jersey
 - E. Milking Shorthorn
13. Producing milk with a SCC less than 150,000 is important because milk will have which of the following characteristics?
- A. Improved flavor
 - B. Longer shelf life
 - C. Increased cheese yield
 - D. Reduced hauling and handling costs
 - E. All of the above
14. Which state introduced a 2021 bill to eliminate artificial insemination in dairy cattle (it failed)?
- A. Oregon
 - B. Wisconsin
 - C. California
 - D. New Mexico
 - E. Colorado

15. What is the BioPRYN blood test used to test for?
- A. Mastitis
 - B. Nitrate toxicity
 - C. Pregnancy
 - D. Dystocia
 - E. Prolactin
16. Mastitis is the most costly disease in dairy cattle. The most effective procedures to prevent new infections are which of the following?
- A. Predipping and drying the teat before attaching the milking unit
 - B. Use strawbedding in the housing area
 - C. Using the same cloth towel to wipe all the cows at the same time
 - D. Teat dipping (pre and post) and dry cow antibiotic treatment
 - E. Leaving the milking until on until all the milk is completely removed from the udder
17. You are reviewing bull proofs to select the best bull to use on your dairy heifers. PTA is listed on the proof. What does the acronym PTA stand for?
- A. Predicted Transmitting Ability
 - B. Productive Transmitting Ability
 - C. Production True Ability
 - D. Predicted Transmitting Accountability
 - E. It doesn't stand for anything specific
18. The genetic base for genetic evaluations is updated every 5 years. The next base change is scheduled for which year?
- A. 2021
 - B. 2022
 - C. 2023
 - D. 2024
 - E. 2025

19. According to a Hoard's Dairyman survey of 3,000 readers in 2011 and 2021, what percent of respondents vaccinated their calves, heifers, and cows?
- A. 52%
 - B. 67%
 - C. 78%
 - D. 85%
 - E. 94.6%
20. Youth for the Quality Care of Animals (YQC) is a national level multi-species quality assurance program with a focus on which three core pillars?
- A. Food safety, animal ethics; character development
 - B. Food quality, animal well-being; character development
 - C. Food safety; animal ethics, honesty
 - D. Food safety; animal-well being, character development
 - E. Meat quality; animal ethics; character development
21. At a recent Holstein dairy farm visit with your FFA class, you observed the employees feeding new calves 6 hours after the calves were born. They used a brix refractometer to determine the quality of colostrum before feeding calves 1 bottle each. However, they are concerned because blood tests show the calves are not achieving adequate levels of antibodies to boost immunity. After discussing with your FFA class, you make which of the following recommendations to improve passive immunity of the calves:
- A. Continue to use the Brix refractometer, feed 1 bottle of colostrum within 2 hours of being born.
 - B. Continue to use the Brix refractometer, feed 1 bottle of colostrum within 12 hours of being born.
 - C. Continue to use the Brix refractometer, feed 10% of the calves body weight colostrum within 2 hours of being born.
 - D. Continue to use the Brix refractometer, feed 2 bottles of colostrum within 24 hours of being born.
 - E. Continue to use the Brix refractometer, feed 10% of calf body weight of colostrum within 18 hours of being born.

22. Which of the following is not a primary class of immunoglobulins found in colostrum?
- A. IgG
 - B. IgB
 - C. IgA
 - D. IgE
 - E. IgM
23. The jugular vein is the ideal location for what type of injection?
- A. Intramuscular injection
 - B. Intrauterine injection
 - C. Intravenous injection
 - D. Intraperitoneal injection
 - E. Intramammary infusion
24. A mature dairy cow has how many teeth?
- A. 32 teeth on both her upper and lower mouth
 - B. 10 teeth on her upper mouth and 22 on her lower mouth
 - C. 16 teeth on both her upper and lower mouth
 - D. No teeth on her upper mouth and 32 on her lower mouth
 - E. 32 on her upper mouth and no teeth on her lower mouth
25. As an A.I. sales representative a dairy producer asks you to help select bulls to improve his future heifers get pregnant. You recommend which of the following bulls to help achieve this goal:
- A. Theo DPR 1.4
 - B. Jonathan DPR 5.0
 - C. Newton PL 4.4
 - D. Toby REL 96
 - E. Kingston DPR -0.9

26. Which of the following are leading causes of death in young calves on dairy farms?
- A. Scours and pneumonia
 - B. Pink eye and scours
 - C. Scours and black leg
 - D. Infected naval and pneumonia
 - E. Overeating and pneumonia
27. The PDCA Cow Unified Scorecard allots how many points to frame and which trait is the highest priority in this category?
- A. 15 points and Rump
 - B. 20 points and Back/loin
 - C. 25 points and Front End
 - D. 15 points and Stature
 - E. 20 points and Front End
28. Which of the following does not cause a decrease in milk fat test?
- A. Estrus
 - B. Extremely Hot Weather
 - C. High Fiber content in the ration
 - D. Finely chopped feeds
 - E. Illness
29. During a dairy farm visit with your FFA advisor, the dairy farmer asks you what might be wrong with his cows. He provides the following information for you from cows experiencing problems, BSC 4.0; cows are over 8 months pregnant or in the dry period; average SCC is 350,000, and after calving over half had milk fever. Based on these symptoms and signs, you suspect which disease to be causing the problem?
- A. Hardware disease
 - B. Ketosis
 - C. Displaced abomasum
 - D. Fat Cow Syndrome
 - E. Heat Stress

30. Which of the following was the number 1 milk producing cooperative in the U.S. based on milk volume in 2019
- A. Land O'Lakes, Inc.
 - B. Edge Dairy Farmer Cooperative
 - C. California Dairies, Inc.
 - D. Northwest Dairy Association
 - E. Dairy Farmers of America
31. What is the number 1 reason for culling dairy cows in U.S. dairy herds?
- A. Low milk production
 - B. Reproductive failure
 - C. Mastitis
 - D. Lameness
 - E. Ketosis
32. You are invited to visit a 700 cow dairy in your county to learn more about how they group their cows. They currently are grouping the cows by body condition score. They ask you what other ways could they potentially group their cows. You provide the following recommendations as options for consideration.
- A. Production level
 - B. Stage of lactation
 - C. Lactation number
 - D. Health
 - E. All of the above
33. In the medicine room on the dairy where you work is a shelf of products labeled as anthelmintic products. These are used for what purpose?
- A. Dewormers
 - B. Teat Dips
 - C. Fertilizer
 - D. Sanitizers
 - E. All of the above

34. Which compartment of the ruminant stomach is located closest to the heart?
- A. Reticulum,
 - B. Omasum,
 - C. Rumen,
 - D. Abomasum,
 - E. Small intestine.
35. What is the basic unit of inheritance?
- A. Gene,
 - B. Allele,
 - C. Chromosome,
 - D. Locus,
 - E. Genome.
36. Raising dairy replacement heifers accounts for what percent of total farm expenses on many dairy operations?
- A. 5-10%
 - B. 15-20%
 - C. 35-40%
 - D. 55-60%
 - E. over 75%
37. Gestation length in dairy cattle can vary due to which of the following factors?
- A. Age of the cow
 - B. Breed of the cow
 - C. Season of the year
 - D. Number of the calves carried
 - E. All of the above

38. Budgets, balance sheets and cash flow projections are valuable and essential management tools but they do not tell the manager if the business is profitable. What is the only tool of farm business analysis that measures profitability?
- A. Bank Statement
 - B. Equity Statement
 - C. Income Statement
 - D. Schedule F
 - E. Excel spreadsheet
39. To determine the height of the udder floor on a dairy cow, what reference point is used?
- A. Pastern
 - B. Vulva
 - C. Hock
 - D. Hooks
 - E. None of the above
40. What element must be absent in order for effective fermentation to occur in a silage pile?
- A. Carbon
 - B. Oxygen
 - C. Nitrogen
 - D. Phosphorus
 - E. Potassium

2021 National FFA Dairy Cattle Career Development Event

Official answers for Dairy Management Exercise:

- | | |
|-------|-------|
| 1. A | 21. C |
| 2. C | 22. E |
| 3. B | 23. C |
| 4. A | 24. D |
| 5. C | 25. B |
| 6. A | 26. A |
| 7. E | 27. A |
| 8. B | 28. C |
| 9. C | 29. D |
| 10. C | 30. E |
| 11. B | 31. B |
| 12. B | 32. E |
| 13. E | 33. A |
| 14. A | 34. A |
| 15. C | 35. A |
| 16. D | 36. B |
| 17. A | 37. E |
| 18. E | 38. C |
| 19. E | 39. C |
| 20. D | 40. B |