

**HOLSTEIN FOUNDATION  
AYRSHIRE QUIZ BOWL  
2024 PRACTICE QUESTIONS**

1. The sex of a calf is determined by which parent?  
Sire or father
2. Louis Pasteur is significant in the dairy industry for making what contribution?  
Pasteurization
3. What part of the cow is ideally described as lean, incurving to flat and wide apart from the rear.  
Thighs
4. Body energy and nutrient reserves can be replenished with most ease during which stage of lactation?  
Late lactation
5. In 1938, the first A.I. cooperative was started in the U.S. in what state?  
New Jersey
6. What part of a cow's stomach is most similar to a human's stomach?  
Abomasum
7. How long does it take for official AM test results?  
2 to 3 weeks
8. What is it called when a cow is in heat?  
Estrus
9. Increased consumption of soft drinks has caused a gap in the recommended daily amount of what mineral needed by teenagers?  
Calcium
10. What is the first milk from a cow that has freshened called?  
Colostrum

11. Feeding proper rations during the summer is important for both cow comfort and maintaining milk production. Which nutrient is most important during the summer months?

Water

12. What type of cattle housing system is best suited for dry regions of the country?

Drylots

13. What part of the alfalfa plant has the highest percent digestibility?

Leaves

14. The CPI formula places the most emphasis on which trait?

Protein

15. What is the first compartment of the stomach called?

Rumen

16. Approximately how many gallons of blood pass through the udder for each gallon of milk produced?

400 to 500 gallons

17. DNA testing is a means of verifying parentage. What type of sample is needed for the lab to best identify DNA markers?

Hair sample from switch

18. What is the name for the record of an animal's ancestry which provides genetic and performance information on an individual animal and its ancestors?

Pedigree

19. Name the dairy cooperative with the most member farms.

Dairy Farmers of America

20. What metabolic disorder in high-producing cows, commonly occurring one to six weeks after calving, is characterized by low-blood sugar and depressed appetite?

Ketosis

21. Name the Ayrshire Breeders' Association vice-president.

Rhonda Patrick-Winkler

22. Newborn calf hutches should be bedded with a minimum of how many pounds of fresh straw?

60 pounds

23. What is the most costly disease affecting the dairy industry?

Mastitis

24. What is the PDCA maximum allowable limit for topline hair in the showing?

One inch

25. During which stage of the dry period is the chance of udder infection the lowest?

During the middle of the dry period

26. How much does the Ayshrie Breeders' Association charge for a family transfer not on the Rewards program?

\$10.00

27. What is the average duration a cow in heat will stand to be mounted?

4 to 6 seconds

28. Mange is contagious and tends to occur in dairy cattle housed in close proximity, especially during what season?

Fall or winter

29. How do cows effectively lose body heat during hot weather?

Sweating or panting

30. When was the first registered Ayrshire imported into the United States?

1822

31. The first DHI cow testing association was established in what state?

Michigan

32. Most farmers try to harvest first-cut alfalfa when it is in what stage?

Late-bud stage

33. Tattoos should be placed in this ear, as the other ear is used for vaccination  
Left ear
34. What feedstuff is a by-product of ethanol production?  
Distillers grains
35. SCC is used to identify cows with mastitis. What do the initials SCC stand for?  
Somatic cell count
36. What is the name of the organization that resulted from the collaboration among industry partners, breed association, AI companies, DHIA testing organizations and the dairy records processing centers?  
Council on Dairy Cattle Breeding
37. Injecting cows with a hormonal form of what vitamin before calving may reduce the incidence of milk fever?  
Vitamin D
38. What is the average weight of a mature Ayrshire cow?  
1,200 pounds
39. Chromosomes are found in what part of the cell?  
Nucleus
40. What is the part of the back that lies between the withers and the middle of the back called?  
Chine
41. How many chromosomes does a cattle embryo have?  
60 chromosomes or 30 pairs
42. For lease animals to be eligible to show in National Junior shows agreements must be received in the ABA office by what date?  
August 1
43. Grass tetany is a disease linked to the shortage of what element normally found in soil and plants?  
Magnesium

44. What age group of cattle is most susceptible to ringworm?  
Young animals (calves and heifers)
45. At what Fahrenheit temperature should your refrigerator be set at to store medicines?  
35 to 46 degrees F
46. How much does it cost to transfer an Ayrshire less than 60 days from the date of sale on the rewards program?  
\$15.00
47. How much does an Ayrshire three-generation pedigree cost on-line?  
\$4.00
48. What type of crop shields the soil to reduce erosion, adds organic matter and captures nutrients otherwise lost by runoff?  
Cover crop
49. What is the name of the disease that is transmitted by a small tick?  
Lyme disease
50. What enzyme is deficient in people who are lactose intolerant?  
Lactase
51. What is subclinical mastitis?  
Infection of udder that is not visible
52. What is the recommended temperature to thaw semen?  
95 - 98 F
53. What is the common name for calf diarrhea?  
Scours
54. What term is used to describe substances that have low pH values?  
Acidic
55. The release of which hormone causes the uterus to contract more forcefully and initiates the expulsion of the fetus?  
Oxytocin

56. Name the 2022 International Ayrshire Show Grand Champion.  
Palmyra Predator B Ruthless-ET
57. In dairy judging, what is the term for the number value given to the difficulty in placing a pair that is used to score the placing?  
Cut (s)
58. When setting goals and ensuring compliance with our standard operating procedures, we should use the SMART acronym. What does the M stand for?  
Measurable
59. What is the primary reason for grain being found in manure?  
Poorly processed grain
60. What type of injection may include a modified live virus?  
Vaccination
61. In reproduction, what time frame does days open refer to?  
Number of days from calving to conception
62. How much is the annual fee for the Ayrshire Rewards Program?  
\$100.00
63. Research has shown that supplementing dry cow rations with anionic salts may be an effective method of preventing milk fever. What type of electrical charge does an anion have?  
Negative charge
64. Which part of the reproductive tract is a sphincter-like structure that relaxes during calving? It joins the vagina to the uterus.  
Cervix
65. Percent carbohydrate reserves in alfalfa roots are greatest during which stage of plant growth?  
Full bloom
66. What is predipping?  
Disinfecting and cleaning the teats prior to milking

67. How can people get infected with tuberculosis?  
Drinking unpasteurized milk from infected cows or contaminated water
68. What is the cost of a youth membership to the Ayrshire Breeders' Association?  
\$20
69. Excessive rates of pneumonia in dairy herds are not typically due to cold weather or drafts, but often due to what?  
Inadequate ventilation
70. When a cow is stressed, how many minutes will it take for her heartbeat to slow down?  
20 to 30 minutes
71. What is the leading cause of heifer calf deaths?  
Scours
72. Name the Ayrshire Breeders' Association Records Coordinator.  
Cierra Jordan
73. What factor plays the biggest role in a cow's calving interval?  
Management (Hoard's Dairyman)
74. What is the natural precursor of vitamin A?  
Beta-carotene or carotene
75. Bovine spongiform encephalopathy or BSE is more commonly known as what disease?  
Mad Cow Disease
76. What does it cost to become a National Ayrshire Junior Member?  
\$10.00
77. Cheesemakers add what coagulant to curdled milk? This coagulant is made from an enzyme found in the inner lining of a calf's stomach.  
Rennet (Rennin acceptable as is name of enzyme)
78. Name the greatest danger attributed to tower silos.  
Silo gas or nitrogen dioxide

79. Name the 2022 Ayrshire Distinguished Service Award winner?  
Donald Benson
80. In general terms, what are the chemical messengers which control a cow's estrus cycle?  
Hormones
81. An excess of what feed can cause gossypol (gossy-pole) toxicity?  
Cottonseed
82. How much does a formatted sale catalog pedigree cost?  
\$15
83. In which specific organ do follicular and luteal cysts occur?  
Ovaries
84. Soybean meal generally is added to dairy rations to supply what major nutrient?  
Protein
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86. When setting goals and ensuring compliance with our standard operating procedures, we should use the SMART acronym. What does the M stand for?  
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87. In a feeding program, what do the initials DMI stand for?  
Dry Matter Intake
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97. When removing manure from a storage pit, what typically must be done to minimize solids accumulation and create a uniform fertilizer for field application?

Agitate manure

98. What toxin is a common problem usually associated with feeding large amounts of cottonseed?

Gossypol

99. Which hormone released during parturition softens the cervical and vaginal tissues and causes the dense connective tissue and ligaments in the pelvic area to become more elastic?

Relaxin or estrogen

100. What two types of cells found in milk are commonly called somatic cells?

Epithelial cells and leukocytes (white blood cells)