

2016 NAILE 4-H Dairy Quiz Bowl

Phase A - Answers

1 Which breed of dairy cattle is sometimes referred to as golden?

Guernsey

2 What is the yellow body that grows on the ovary?

Corpus luteum or CL

3 What is the portion of the feed that remains after water has been removed?

Dry matter

4 Your cow has had 5 bull calves, what is the probability that her next calf will be a bull?

50 Percent

5 What is the solid portion of milk remaining after the removal of whey called?

Curd

6 What are the finger like projections that are found in the wall of the rumen?

Papillae

7 What are forages that are harvested by grazing animals called?

Pasture

8 Undegradable describes a protein that avoids breakdown in which digestive system compartment?

Rumen

9 What is the biggest enemy of proper silage fermentation in an upright or trench silo?

Oxygen

10 What is the term used to describe a mature oocyte or sperm?

Gamete

11 Which mineral, when severely deficient in the cow's diet, often results in calves born with thin hair, hairless, stillborn or enlarged thyroids?

Iodine

12 What is the hormone called that can interfere with milk ejection when a cow becomes frightened or upset?

Adrenaline (epinephrine); Norepinephrine

13 Milk which is used in soft (spoonable) dairy products such as ice cream, cottage cheese and yogurt, is described as what class?

Class II

14 Planting annual ryegrass helps remove what mineral from the soil?

Phosphorus

15 Which mineral, in addition to copper, is necessary for the proper synthesis of hemoglobin?

Iron

16 The parotid, submaxillary, buccal and palatine are what type of gland?

Salivary glands

17 What toxic substance is most likely to be found in drought stressed forages?

Nitrates

18 What kind of bedding supports the least amount of bacteria?

Sand (Inorganic)

19 What is the name of the waxy substance in the teat duct which helps provide a physical barrier to bacteria?

Keratin

20 If you have 30 pounds of corn silage at 34% dry matter, how many pounds of dry feed do you have?

10.2 Pounds

21 Which organic acid is produced in excess when forages are ensiled too wet reducing the palatability of the silage?

Butyric acid

22 What is the term for the hormone altering method which causes groups of cows and heifers to show heat at the same time?

Synchronization

23 What is the name for the most common simple sugar?

Glucose

24 How much feeding space should be provided for recently weaned heifers?

18 Inches

25 Which state had the highest average milk production in 2015?

Colorado

26 Which fat soluble vitamin is produced in the rumen?

Vitamin K

27 You purchase 3 tons of heifer feed that contains 18% crude protein. How many pounds of crude protein did you buy?

1080 Pounds

28 If 2 cows that are heterozygous for the Polled gene are crossed, what percent of the offspring will be Polled?

75 Percent

29 In which digestive compartment does metal accumulate?

Reticulum

30 What hormone can be administered to cause a corpus luteum to regress?

Prostaglandin F2 α

31 What is the maximum recommended weight difference between the lightest and heaviest yearling heifers within a group?

200 Pounds

32 If the farm price received for milk is \$14.00 per hundredweight, what is the price received per pound of milk?

14 Cents

33 How many cows would you expect to breed a third time in a 100 cow breeding herd, with a 50% conception rate?

25

34 When large amounts of forage are fed, which acid is predominantly produced?

Acetic acid (60 to 70 Percent of total)

35 What is the process called where the uterus returns to normal size after calving?

Involution

36 When recommended by your veterinarian, heifers should be treated with a dry cow intramammary infusion how many days prior to calving?

30 Days

37 The A2 beta-casein gene is more prominent in which breed of dairy cattle?

Guernsey

38 What is the recommended maximum number of calves per nipple in an automated calf feeding system?

25 Calves

39 What is the hormone the produced by the fetus in response to stress which initiates parturition?

Cortisol

40 What is the recommended temperature of the water at the beginning of the wash cycle for washing the bulk tank, milking equipment and milk lines?

160 degrees Fahrenheit

41 What element was sufficiently high in rainfall for crop production, but must be supplemented in fertilizers due to stricter emission standards?

Sulfur

42 Calcium sulfate is used as source of calcium and sulfur in dairy feeds. What is the common name for calcium sulfate?

Gypsum

43 A herd averages 70 lbs. of milk/cow/day. Feed costs are \$6/day. Milk is \$15.00/cwt. What is the return above feed costs per cow per day?

\$4.50 (70 lbs. milk x \$.15/lb. = \$10.50 - \$6.00 feed costs = \$4.50)

44 What acid is present in the abomasum?

Hydrochloric

45 What gland produces oxytocin?

Hypothalamus

46 A codon is comprised of how many genetic bases?

3 Bases

47 Calves drinking softened water will have high blood levels of what mineral?

Sodium

48 What is the name of the water repelling seed coat on corn kernels?

Pericarp

49 Which yogurt manufacturer pledged to no longer accept milk from cows fed GMO grains?

Dannon

50 Milk coagulation is caused by the presence of what enzyme?

Rennin (rennet)