- 1) In reference to feeding, what do the letters TMR stand for? **Total Mixed Ration**
- 2) Name the legume that is a major feed source in dairy rations. Alfalfa
- 3) Name the single largest expense on a dairy farm. Feed
- 4) This is the approximate gallons of water a cow drinks a day. 30-50 gallons
- 5) Name the type of forages that must be seeded every year and complete their growth in one crop year. **Annual**
- 6) What type of crop shields the soil to reduce erosion, adds organic matter, and captures nutrients otherwise lost by runoff? **Cover crop**
- 7) Name 3 ways a dairy cow excretes (or loses) water. Breathing, feces, milk, sweat, urine
- 8) Name the mineral that needs to be adequate in a dairy cow's diet to prevent grass tetany. **Magnesium**
- 9) What instrument is used to measure colostrum quality? **Colostrometer**
- 10) What is another name for ascorbic acid? Vitamin C
- 11) Name 3 micro minerals required by dairy cows. **Cobalt, Cooper, Iodine, Iron, Manganese, Selenium, Zinc**
- 12) Name 4 of the 5 major nutrients found in feedstuffs. **Energy, Protein, Vitamins, Minerals, Water**
- 13) What are the two main gases produced in the rumen? Methane and Carbon Dioxide
- 14) Name the hormone that causes milk letdown. Oxytocin
- 15) What is the name of the byproduct recovered when cheese is made? Whey
- 16) What is the name of the small projections that line the wall of the small intestine? Villi
- 17) Name the skin disease that is caused by Bovine Papilloma virus. Warts
- 18) What do the initials USDA stand for? United States Department of Agriculture
- 19) Name the term describes the appearance and performance characteristics of an animal. **Phenotype**
- 20) What is the name for the technique in which sperm fertilizes the ovum in a laboratory dish, grows into a young embryo in the lab, and is then transferred to a cow? **In vitro fertilization**
- 21) Which enzyme is needed for rapid lactose breakdown? Lactase
- 22) Name the term that describes "the release of an egg from a follicle." Ovulation
- 23) Name the month that is National Dairy Month. June
- 24) This is the percent nitrogen in a bag of 15-10-8 fertilizer. 15
- 25) This is how much a gallon of milk weighs. **8.6 lbs**
- 26) Name the type of organism that causes ringworm. Fungus
- 27) Name the part of the stomach where hardware disease occurs. Reticulum
- 28) Name the type of organism that causes Blackleg. Bacteria
- 29) Name the type of organism that causes warts. Virus
- 30) What does the acronym FDA stand for? Food and Drug Administration

- 31) Name the instrument used to give an animal a pill or bolus. Balling Gun
- 32) Reading a vaccine label, the instructions say to give each animal 2 ml. Convert this to cc how many cc would each animal get? **2 cc**
- 33) What portion of the plant wall is not digestible? Lignin
- 34) Name 2 internal parasites of dairy cows. Lung worm, round worm, stomach worm, liver flukes, coccidia
- 35) What type of organism causes blackleg? Bacteria
- 36) Name the country where the Ayrshire breed originated. Scotland
- 37) Name the breed with the longest gestation period. **Brown Swiss**
- 38) Name the breed with the lowest rate of dystocia (calving difficulty). Jersey
- 39) Name the breed that is the highest producing dairy breed in the world. Holstein
- **40)** Name a breed that has it origins as dual purpose breed (meat & milk). **Milking Shorthorn**
- 41) Name the breed the originated in Switzerland. Brown Swiss
- 42) Which breed of dairy cattle is known for its "golden" milk? Guernsey
- 43) The World Dairy Expo is held in what city and state each year? Madison, Wisconsin
- 44) What does the letter in a bull's stud code tell you about him? His breed
- 45) How many pounds of whole milk does it take to make 1 pound of cheese? 10 pounds
- 46) Name the structure that provides major support for the udder. **Median Suspensory Ligament**
- 47) Name the bovine stomach that is most similar to a human's stomach. Abomasum
- 48) What are the tiny fingerlike projections that line the wall of the rumen? Papillae
- 49) When milk is pasteurized, it is heated to 161 degrees for how many seconds? **15** seconds
- 50) The name of a castrated bull. Steer
- 51) Describe what is means when an animal is culled. Removed from the herd
- 52) Name the compartment of the stomach that is also known as the fermentation vat. **Rumen**
- 53) What provides a calf with passive immunity? **Immunoglobulins or antibodies (from colostrum)**
- 54) In what country did the Holstein cow originate? **Netherlands**
- 55) What is metritis? An infection of the uterus
- 56) What functions to alternate vacuum and atmospheric pressure between the liner and the teat cup shell of a milking machine? **Pulsator**
- 57) Name 3 diseases of dairy cattle with a color in their name. Red water, Red nose, Black leg, Blue tongue, White muscle disease, Pink eye
- 58) What is the term used for the accumulation of fluid in the udder? Edema
- 59) If an animal is said to be naturally polled, what is the animal born without? Horns
- 60) Name the hormone that is critical in the initiation and maintenance of lactation. **Prolactin**