## Senior Packet 1, Phase A

- 1) What is the term for the fetal membrane which immediately surrounds the developing calf?
  - Amnion
- 2) What is the term used to describe the act of managing a business's labor source?
  - Human Resource Management
- 3) What is the process called in which the udder tissue reverts to a non-milk producing state after drying off?
  - Involution
- 4) In addition to ammonia and methane, what other gas is produced in the rumen?
  - Carbon dioxide

### Senior Packet 1, Phase B

- 1) Name 3 options available for genomic testing?
  - 3K
  - 6K
  - 9K
  - 50K
  - 77K
  - 800K
- 2) What are the three components of non-structural carbohydrates?
  - Starch
  - Sugar
  - Pectin
- 3) What are 4 advantages of making baleage?
  - Low cost per bale to make
  - Lower capital investment than conventional silage storage
  - High quality feed can be made because of quicker harvesting practices
  - Lower harvest and storage losses
  - Less weather damage
  - Individually wrapped bales can be easier to move with the right equipment
  - Feeding doesn't require specialized equipment
  - Excess can be sold for money
  - Small amounts of forage can be ensiled at a time
- 4) Name the two federal government agencies that regulate portions of the dairy industry?
  - USDA
  - FDA

### Senior Packet 1, Phase C

- 1) The New York State Department of Agriculture and Markets is alerting all NY dairy producers about the increased presence of what bacteria that is resistant to most antibiotics and zoonotic?
  - Salmonella Dublin
- 2) What is the recommended temperature for washing the bulk tank?
  - 160 degrees F
- 3) When reviewing an animal's performance records, what does ADG stand for?
  - Average Daily Gain
- 4) Where is FSH secreted from?
  - Pituitary gland
- 5) After four years off the market, which Roundup Ready forage are producers allowed to plant once again?
  - Alfalfa
- 6) What breed of dairy cattle has the longest gestation?
  - Brown Swiss
- 7) What is a refractometer used for?
  - To check blood serum protein levels to see if the calf got adequate passive transfer
- 8) What is the term used to describe the financial document where farm equity is recognized and the financial position of the farm on a given day is stated?
  - Balance sheet
- 9) Who is the largest processor and distributor of dairy products in the U.S.?
  - Dean Foods

- 10) In the silage fermentation process, what acid is responsible for dropping the pH significantly and keeping it at this low level?
  - Lactic acid
- 11) Every five years, the U.S. Congress passes a bundle of legislation that sets national policy for agriculture, nutrition, conservation, and forestry. What is the name of this legislation?
  - The Farm Bill
- 12) What was the original 1937 slogan for June Dairy Month?
  - Keep Youthful, Drink Milk
- 13) What is the name of the hormone the enables the cervix to soften and stretch in preparation for calving?
  - Relaxin
- 14) What does GDD stand for in the area of crop maturity?
  - Growing Degree Days
- 15) What is the Koster tester used to determine?
  - The dry matter or moisture content of feeds
- 16) In a cow's digestive system, which compartment of the stomach is responsible for squeezing fluid out of the digesta?
  - Omasum

## Senior Packet 2, Phase A

- 1) NDF consists of hemicellulose, cellulose and lignin. Which of the 3 components is considered the undigestible?
  - Lignin
- 2) What post calving disorder would a cow most likely have that is characterized by an enlarged uterus and offensive smelling uterine discharge within 21 days in milk?
  - Metritis
- 3) Dextrose, steroids and propylene glycol are common treatments for what metabolic disorder?
  - Ketosis
- 4) What is the name of the muscular tube that carries food from the pharynx to the stomach?
  - Esophagus

## Senior Packet 2, Phase B

- 1) What 2 dairy cattle breeds are owned by the Hoard's Dairy Farm?
  - Guernseys
  - Jerseys
- 2) What two ration nutrients are fermented by rumen microbes to make volatile fatty acids (VFA's)?
  - Carbohydrates
  - Proteins
- 3) Name 2 reasons why it is beneficial to dip a calf navel in iodine shortly after birth.
  - Washes away dirt
  - Kills germs and pathogens that could enter via the navel
  - Aids in drying up the umbilical cord
- 4) What is the formula used on a dairy farm to determine debt per cow?
  - Total liabilities divided by the number of milking cows in the herd

# Senior Packet 2, Phase C

What category on the PDCA Unified Score Card in the highest?
- Udder
What term is used to compare a farm business with industry standards?
- Benchmarking
What does MilkPEP stand for?
- Milk Processor Education Program
What liquid is given intraveneously to a cow with ketosis?
- Liquid dextrose
What does PL stand for in regards to genetics and breeding?
- Productive Life
What forage harvesting practice is important for rapid drying and preserving the harvested forage quality?
- Wide Swathing
What part of the digestive system does Crytosporidiosis(Crypto) affect?
- Small intestine
What does a cow do to release gas from her rumen?
- Belches or eructates
What milk component is the major determinant of the amount of cheese yield from milk?
- Protein
) How is equity calculated?
- Assets minus liabilities

11) Fat has how much more energy than carbohydrates?

- 2.25 times as much

- 12) What hormone is found in CIDR vaginal inserts?
  - Progesterone
- 13) What is the term for the movement of nitrates through the soil and into the ground water?
  - Leaching
- 14) What are leukocytes?
  - White blood cells
- 15) What are the structures made of tissue from the dam and fetus that are also known as the "buttons on the placenta" called?
  - Placentomes
- 16) What does the g in gTPI stand for?
  - -Genomic

### Senior Packet 3, Phase A

- 1) In a newborn calf, in which part of the digestive system are the majority of immunoglobulins from colostrum absorbed?
  - Small Intestine
- 2) What is the name of the process where legume plants like alfalfa and clover convert atmospheric nitrogen into nitrogenous compounds that are useful to the plants?
  - Nitrogen fixation
- 3) The National Conference on Interstate Milk Shipment, by a very narrow margin, defeated a proposal to reduce somatic cell count limits from 750,000 cell per milliliter of milk to how many cell per milliliter of milk?
  - 400,000
- 4) Name the protein that passes through the rumen of a ruminant animal and is unchanged by microbes.
  - Rumen undegradable protein

### Senior Packet 3, Phase B

- 1) When evaluating conditions for manure runoff, there are 6 high risk manure spreading conditions that should be considered before you spread. Name 4 of them.
  - Weather, wet ground, slope, buildings nearby, water sources
  - Field geology
  - Type of manure
  - Application method
  - Field conditions
  - Location of drain tiles ditches, etc.
- 2) Name the 3 of the 4 practices that are used in the different heat synchronization programs.
  - Up-front injection of GnRH
  - 1 or 2 injections of prostaglandin
  - Breeding injection of GnRH
  - Timed AI
- 3) Name 4 of the 10 essential amino acids for milking cows.
  - Arginine
  - Histidine
  - Isoleucine
  - Leucine
  - Lysine
  - Methionine
  - Phenylalanine
  - Threonine
  - Tryptophan
  - Valine
- 4) Name 4 factors to consider before including a by-product feed into a ration.
  - Nutrient composition
  - Cost
  - Availability
  - Palatability
  - Storage
  - Consistency
  - Ability to feed (use) (Virginia study materials)

### Senior Packet 3, Phase C

- 1) In reference to respiratory function, what is dyspnea?
  - Heavy, fast breathing
- 2) The more common name for papillomas is what?
  - Warts
- 3) What is the technical term for a difficult birth?
  - Dystocia
- 4) What act established the Cooperative Extension System?
  - Smith-lever
- 5) What term is used to describe the net price received by farmers for milk. It includes all payments received for milk sold and any deductions for costs associated with marketing the milk.
  - Mailbox price
- 6) What is the name of the mycotoxin that causes the most concern because it is carcinogenic and has the possibility of contaminating the human food supply?
  - Aflatoxin
- 7) What does it mean when a heifer is overconditioned?
  - She is too fat
- 8) Where is the New York State Animal Health Diagnostic Laboratory located?
  - Cornell University, Ithaca NY, or Cornell Vet School
- 9) What dairy product was first created in New York State and is commonly used on bagels?
  - Cream cheese
- 10) What is the name of the bacteria that live on the root nodules of legumes and fix atmospheric nitrogen for the plants?
  - Rhizobium

- 11) In regards to calf rearing, what is the term that refers to the temperature range in which a calf does not need to expend extra energy to either keep warm or to stay cool?
  - Thermal neutral zone
- 12) What is the process called in ruminants when semi-liquid ingesta is regurgitated into the esophagus, re-chewed, and re-swallowed for further digestion?
  - Rumination
- 13) What do you call the tiny, finger-like projections that line the wall of the rumen?
  - Papillae
- 14) What percentage of all cost associated with raising replacement heifers is marked as feed cost?
  - 55-60 %
- 15) When discussing animal welfare, what does the acronym FARM stand for?
  - Farmers Assuring Responsible Management
- 16) What is the name of the category on the PDCA Unified Scorecard that is worth 25% and takes into consideration the ribs, chest, barrel, thighs, neck, withers, and skin of the animal?
  - Dairy Strength

## Senior Packet 4, Phase A

- 1) Which bovine stomach compartment is highly acidic?
  - Abomasum
- 2) Somatic Cell Counts are generally higher during which season?
  - Summer
- 3) Detergent can be used to alleviate what digestive problem in dairy cattle?
  - Bloat
- 4) When a dairy animal is handled roughly such as with an electric prod, what specific hormone is released?
  - Cortisol

# Senior Packet 4, Phase B

- 1) What are the 3 segments of the small intestine?
  - Duodenum
  - Jejunum
  - Ileum
- 2) Name 2 types of evaporative cooling.
  - Sprinklers or foggers
  - Tunnel Ventilation
  - Cross ventilation
- 3) On which feet and which claw does lameness most often occur in dairy cattle?
  - Hind feet and Outside claw
- 4) Name the four classifications for cheese.
  - Soft
  - Semi-Soft
  - Hard
  - Very Hard

### Senior Packet 4, Phase C

- 1) What is the funnel-shaped end of the oviduct that receives the ovulated egg?
  - Infundibulum
- 2) A technique where sperm fertilizes the ovum in a laboratory dish, grows into a young embryo in the lab, and then is transferred to a cow is called what?
  - In vitro fertilization
- 3) What state has the largest average dairy herd size?
  - New Mexico
- 4) What is the most common source of leptospira bacteria?
  - Rodents
- 5) The embryo and the placenta are linked together by what?
  - Naval or umbilical cord
- 6) What is another name for a direct-fed microbial?
  - Probiotic
- 7) If the pH of the rumen fluid is less than 5.5, what is the cow suffering from?
  - Acidosis
- 8) Phase 1 of silage making is called the aerobic phase. What gas is produced and released during this phase?
  - CO2 (Carbon Dioxide)
- 9) In reference to environmental law, what does AFO stand for?
  - Animal Feeding Operation
- 10) What muscle helps prevent organisms from entering the udder and keeps the teat end closed?
  - Sphincter muscle

- 11) An injection that is given under the skin is called what?
  - Subcutaneous
- 12) Salmonellosis caused by salmonella Dublin is a bacterial infection that most commonly is presenting itself as what type of disease in young calves?
  - Respiratory
- 13) Which fat soluble vitamin is produced in the rumen?
  - Vitamin K
- 14) The use of legumes as cover crops can supply a significant amount of what chemical element to the soil?
  - Nitrogen
- 15) What is the name of the hormone produced by the pituitary that is known as the milk formation hormone?
  - Prolactin
- 16) Four farmers and two processors were recognized this past spring with the inaugural U.S. Dairy Sustainability award and were featured in what type of ad?
  - Got Milk

## Senior Packet 5, Phase A

- 1) Which nutrients are classified as either water soluble or fat soluble?
  - Vitamins
- 2) On average how many pounds of milk will a cow produce for every pound of dry matter she consumes?
  - 2 to 3 pounds
- 3) What is the predominant class of immunoglobulins found in bovine colostrum?
  - IgG
- 4) Allowing alfalfa to grow in the field past a typical cutting schedule improves yield but will reduce quality. During which cutting does relative feed value decline the most rapidly?
  - 1<sup>st</sup> cutting

## Senior Packet 5, Phase B

- 1) Name 3 buffers commonly used in a dairy ration.
  - Limestone
  - Magnesium oxide
  - Sodium bicarbonate
  - Sodium bentonite
- 2) Mastitis has an effect on milk composition. Name components that decrease in concentration in mastitic milk.
  - Lactose
  - Total proteins
  - Casein
  - Solids not fat
  - Total solids
  - Fats
  - Calcium
  - Phosphorus
  - Potassium
- 3) Name 4 things that are commonly reported on a forage analysis.
  - Dry matter
  - Crude protein
  - Soluble protein
  - Total digestible nutrients
  - Net energy of lactation
  - Acid detergent fiber
  - Neutral detergent fiber
  - Ash
- 4) Name two of the commonly known pathogens found in raw milk that could cause illness to humans.
  - E. coli
  - Listeria
  - Campylobacter
  - Salmonella

### Senior Packet 5, Phase C

- 1) The Bt gene has been inserted into corn through a process called transgenics, what does the gene protect the corn plant from?
  - European corn borer
- 2) What does ERPA stand for?
  - Estimated Relative Producing Ability
- 3) What is the scientific name for the disease known as circling disease?
  - Listeriosis
- 4) In reference to dairy cows or calves, what is meant by the mortality rate?
  - Number of dead animals in a given period of time
- 5) What is the name of the virus that causes small blisters on the teats followed by sores and scabs and is spread by the milker?
  - Cow pox
- 6) What is gluconeogenisis?
  - The generation of glucose
- 7) Greek-style yogurt uses how much more milk than traditional style yogurt?
  - 3x
- 8) Long-time or batch pasteurization means the milk is heated to 145 degrees for approximately how long?
  - 30 minutes
- 9) What is the common name for the metabolic disorder known as parturient paresis?
  - Milk Fever
- 10) 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?
  - Income Statement

- 11) Niacin may be added to feeds to aid in the prevention of what metabolic disorder?Ketosis
- 12) A bag of 20-10-15 fertilizer contains what percentage of nitrogen?
  - 20 %
- 13) What is the ideal location for most intravenous injections?
  - Jugular vein
- 14) What is the most common bacterium that causes chronic mastitis?
  - Staph. aureus
- 15) What is the BioPRYN blood test used to test for?
  - Pregnancy
- 16) What type of pulsation do we call it when cyclic movement of the liners of two teat cups within a cluster alternates with the movement of the other two liners?
  - Alternating Pulsation

## Senior Packet 6, Phase A

- 1) When corn silage ferments properly, what happens to the pH?
  - It decreases
- 2) What type of mastitis is characterized by visual abnormalities in the udder and or milk?
  - Clinical mastitis
- 3) When doing a feed analysis, what are we determining when we remove the water from the sample of forage?
  - Dry Matter content
- 4) On a milking machine, if the milk to rest pulsation ratio is set at 60:40, what percent of the time is the inflation open?
  - 60%

## Senior Packet 6, Phase B

- 1) Name the two carbohydrate categories in dairy feeds.
  - Nonstructural carbohydrates ( sugar and starches)
  - Structural carbohydrates (cellulose, hemicellulose, and pectin)
- 2) Name the 3 parts of a cow's teat.
  - Teat cistern
  - Sphincter muscle
  - Streak or teat canal
- 3) Name 4 factors that can cause variation in conception rates on a dairy.
  - Heat detection
  - Nutrition
  - Cow health
  - Semen handling
  - Breeding technique
  - Cow genetics
  - Service bull genetics
  - Environmental factors
- 4) Genetic evaluations for progeny tested bulls will be released by USDA during which 3 months of 2013?
  - April
  - August
  - December

### Senior Packet 6, Phase C

- 1) What term is defined as the loss of feed from the point of harvest or delivery, to what is actually consumed by the cows?
  - Feed Shrink
- 2) What is the name of the organ that is critical for nutrient regulation and glucose production?
  - Liver
- 3) In what country does bovine TB remain a major threat to animal and human health and is an obstacle for international trade?
  - Ethiopia
- 4) EDBH is more commonly referred to as calving ease. What do the letters EDBH stand for?
  - Expected Difficult Births in Heifers
- 5) What is the minimum number of mature cows that qualify a dairy farm as a Medium CAFO or medium concentrated animal feeding operation?
  - 200 cows
- 6) What term describes mating two purebred animals of different breeds?
  - Crossbreeding
- 7) What would a DELVO or SNAP test be testing milk for?
  - Antibiotic residue
- 8) Mycobacterium avium subspecies paratuberculosis (MAP) is the causative agent of what common dairy disease?
  - Johne's
- 9) How many grams of fat are in a cup of whole milk?
  - 8 grams

- 10) What are supernumerary teats?
  - Extra teats
- 11) What stomach compartment is located on the left side of the adult dairy cow and constitutes over 65% of the total stomach volume?
  - Rumen
- 12) What health test must a dairy or beef animal pass in order to be negative for to be shown at fairs or shows in New York State?
  - BVD-PI test
- 13) Feed-stuffs from which some nutrients are removed and used for human use and the remaining nutrients are used for dairy cattle are called what?
  - By-Product feeds
- 14) In what country did the "mob calf feeder" originate?
  - New Zealand
- 15) What style of yogurt has experienced tremendous growth in the U.S. market and accounts for more than 25% of yogurt sales?
  - Greek yogurt
- 16) In 2012 what pest infestation moved across NY State destroying fields of crops and last infested NY in 2008?
  - Army worms

### Senior Packet 7, Phase A

- 1) What kind of fatty acids are completely hydrogenated, with each carbon atom associated with the maximum number of hydrogen atoms?
  - Saturated fatty acids
- 2) What is the wavelike contractile motion that propels food and digesta through the digestive tract?
  - Peristalsis
- 3) What is the physical sign of an iodine deficiency?
  - Goiter
- 4) What is the specific term on a farms balance sheet that describes something you own?
  - Asset

### Senior Packet 7, Phase B

- 1) Name five by-product feedstuffs.
  - Cotton seed hulls
  - Dried brewers grain
  - Soybean hulls
  - Wheat middlings
  - Cotton seed meal
  - Hominy feed
  - Soybean meal
  - Whole cotton seed
  - Distillers grain
  - Peanut meal
  - Wet brewers grain
- 2) If a farmer chooses to direct market their milk, what are they doing?
  - They are selling their milk directly to the consumer
  - Not utilizing a middleman to process and distribute the milk
- 3) In the area of farm business management, what are the two figures needed to calculate feed efficiency per cow on a dairy farm.
  - Pounds of milk produced per cow per day
  - Pounds of dry matter fed per cow per day
- 4) Fertilizer labels have three important numbers. In order, what do these three numbers represent.
  - The first number is the amount of nitrogen.
  - The second number is the amount of phosphate (Phosphorus)
  - The third number is the amount of potash (Potassium)

# Senior Packet 7, Phase C

	2 40-2-00 7, 2 2-4-00 0
1)	What type of nutrient is Niacin?
	- Vitamin-B complex
2)	The US Department of Labor under President Obama recently withdrew a proposed rule dealing with what in agriculture that impacts American youth?
	- Youth under the age of 16 working in agriculture
3)	What organ functions in the role of detoxification of metabolites?
	- Liver
4)	What structure connects a muscle to a bone?
	- Tendon
5)	Which nutrient, found in most fertilizers, increases nodulation in alfalfa?
	- Phosphorus
6)	What type of organism causes leukosis?
	- Virus
7)	Which hormone produced by the pancreas promotes mammary gland growth and cell division?
	- Insulin
8)	What is the term on a farm balance sheet that describes something you owe?
	- Liability
9)	If the MUN level is considered high, which nutrient is likely being fed in excess?
	- Protein
10)	What does the AG-gag legislation recently passed by Utah governor Gary Herbert prohibit?

- Filming or photographing farm animals or operations under false

pretenses

- 11) What is the name of the human health condition characterized by inadequately digesting the sugar found in dairy products?
  - Lactose intolerance
- 12) What is the term for the protrusion of the bowel or other organs through a weak area in the muscle or wall of the body cavity?
  - Hernia
- 13) Where does the external pudic artery supply blood to in the dairy cow?
  - Udder
- 14) What is the social media program which was created using producer check-off dollars which allows producers to tell their story over the web?
  - MyDairy
- 15) What is the name of the funnel shaped portion of the oviduct into which the ovum is released?
  - Infundibulum
- 16) What does the acronym FSIS stand for?

Food Safety Inspection Service

## Senior Packet 8, Phase A

1)	Where in the	ne body wou	ld you find	most of the p	hosphorus	reserves?
----	--------------	-------------	-------------	---------------	-----------	-----------

- Bone
- 2) When balancing a dairy cow's ration, which nutrient requirement should be balanced first?
  - Energy
- 3) Proteins are chains of 50 or more amino acids. How many different amino acids are there?
  - 20 amino acids
- 4) Where in the digestive system are inert fats broken down?
  - Small intestine

## Senior Packet 8, Phase B

- 1) When talking about genetics, what is the difference between an allele and a locus?
  - A locus is the position that a given gene occupies on a chromosome.
  - An allele is any of the alternative forms of a gene that may occur at a given locus.
- 2) Name three of the four critical factors in colostrum management.
  - Quality
  - Quantity
  - Timing
  - Cleanliness
- 3) Name four microminerals, or trace minerals, required in relatively small quantities in dairy cattle rations.
  - Cobalt
  - Iodine
  - Manganese
  - Zinc
  - Copper
  - Iron
  - Selenium
- 4) Name three of the five parts of a milking unit.
  - Claw
  - Milk tube
  - Short air tube
  - Teat cup shell
  - Teat cup liner

### Senior Packet 8, Phase C

- 1) What farm management parameter is calculated by subtracting total farm liabilities from total farm assets?
  - Net worth or equity
- 2) Volatile Fatty Acids (VFA) are a main source of energy for the dairy cow. Where are VFA's produced?
  - Rumen
- 3) What organ produces the hormone insulin?
  - Pancreas
- 4) Which is the leading state for the production of alfalfa?
  - California
- 5) What tool in addition to a colostrometer can be used to evaluate the quality of colostrum?
  - Refractometer
- 6) Checking the space between a calf's eyeball and eyelid is one method of checking for what condition?
  - Dehydration
- 7) Which component other than water is generally found in the highest percentage in milk?
  - Lactose
- 8) What is the term for the process in which sperm undergo a change in the female reproductive tract, enabling them to penetrate and fertilize the ovum?
  - Capacitation
- 9) What enzyme is only secreted in young animals and helps to thicken the milk so it can be digested by the calf?
  - Rennin
- 10) What term describes an animal that has 2 alleles at a given locus that are different?
  - Heterozygous

- 11) What is the name of the gelatin-like structure surrounding the embryo that is composed of proteins?
  - Zona pellucida
- 12) What does the term antiodactyl mean?
  - Split hoof
- 13) Pasteurella pneumonia is more commonly known as what?
  - Shipping fever
- 14) Fatty liver disease is a common transition cow metabolic disorder, and occurs when there is an excess of which types of fatty compounds?
  - Triglycerides
- 15) What term describes an infection of the interdigital skin characterized by the presence of an interdigital lesion, swelling, and moderate to severe lameness?
  - Foot rot
- 16) What is the branch of biotechnology which is concerned with applying molecular biology to the genetic mapping and DNA sequencing of genes?
  - Genomics

# 2013 NYS District Senior Dairy Quiz Bowl Contest Extra Questions

1)	What is the term that describes the amount of income that occurs after feed costs are calculated?
	- Income over feed cost (IOFC)
2)	A serving of milk is 8 ounces. How many servings are there in a gallon of milk?

- 3) What term is used to describe a cow whose rear hocks are too close?
  - Cow-hocked

- 16 servings

- 4) What is the common name for Hypocalcemia?
  - Milk fever
- 5) Approximately 70% of all costs associated with mastitis are from what?
  - Loss of milk production
- 6) What country is home to the most milking cows in the world?
  - India
- 7) What is another name for the omasum?
  - Manyplies
- 8) What is colostrogenesis?
  - The process of making colostrum
- 9) A sperm produces what during metabolism?
  - Lactic acid
- 10) What test is used to determine if raw milk has been added to pasteurized milk?
  - Phosphate test

11) In reference to milk quality testing, what does PI stand for? - Preliminary incubation 12) The natural protective agent mucin is found in what part of the digestive system? Intestines or large intestine 13) Trichomonas causes infertility, abortions, and pyometria in dairy cows. How is Trichomonas spread? Semen 14) What is the enzyme that humans need to digest lactose? Lactase 15) The management practice that is implemented on the farm that helps to reduce the introduction and spread of diseases on the farm is called what? Biosecurity 16) How much are dairy producers assessed per hundredweight of milk to support dairy promotion activities? - 15 cents 17) The victory lane bottle of milk is presented each year to the winner of which famous car race? Indianapolis 500 18) What term defines a legal entity that allows you to hold and manage assets? Trust 19) During the digestion process, what is the name of the enzyme that's function is to break down fat or lipids? - Lipase 20) If refrigerated properly, pasteurized, and homogenized, milk remains fresh for how many days after the expiration date? 7 to 10 days

21) What part of the cell are chromosomes found in? Nucleus 22) What is the term used to describe when a calf is born with its butt first? Breech 23) What is the term used to describe the percent of cows that become pregnant out of the number of cows eligible to become pregnant within a given period of time? Pregnancy rate 24) Which hormone is produced by the uterus and causes the regression of the corpus luteum? Prostaglandin 25) For the best results, approximately what speed should your tractor be traveling at in miles per hour when planting corn? - 4.5 to 5.5 mph 26) What term describes the space that an animal considers its area of safety? Flight zone 27) What do we call dairy foods that have been fermented with lactic acid bacteria? Cultured dairy products 28) What is traditionally the recommended length of the dry period for dairy cows? 45 to 60 days 29) NIR and wet chemistry are two types of what relating to nutrition? Forage test 30) What is the national survey that is taken every five years in order to get a complete count of U.S. farms and the people who operate them? - U.S. Census of Agriculture 31) Through the routine surveillance of USDA, what state recently detected a cow with an atypical form of BSE?

- California
- 32) Economic analysis shows that calving intervals extended beyond how many months result in reduced animal revenue per cow?
  - 13 months

## **Extra Team Questions:**

- 1) List the 4 categories that make up the PDCA Dairy Cow Unified Scorecard and give the point value for each category.
  - Frame, 15 points
  - Dairy Strength, 25 points
  - Rear Feet and Legs, 20 points
  - Udder, 40 points
- 2) Name three diseases in dairy cattle that are caused by a clostridial organism.
  - Black leg
  - Malignant edema
  - Overeating disease
  - Tetanus
- 3) Who is the current United States Secretary of Agriculture and where does that person work?
  - Tom Vilsack
  - Washington, D.C.