

## 2012-2015 TEXAS FFA MILK QUALITY AND PRODUCTS CDE TEST QUESTIONS

- 1) The milk fat differential used in paying for raw milk is:
  - a. **The price to be added or subtracted per 1/10 % of milk fat above or below a set percentage**
  - b. A value established to penalize milk producers who have too much fat in their milk
  - c. A value set to penalize milk producers who have too little fat in their milk
  - d. The price to be added or subtracted per 50 percent of milk fat above or below a set percentage
  
- 2) The form of mastitis that is hidden from sight is known as \_\_\_\_\_.
  - a. Infectious
  - b. Clinical
  - c. Acute
  - d. **Sub-Clinical**
  
- 3) Which of the following will best control contagious mastitis?
  - a. Pre-milking teat dip
  - b. Barrier type teat dip
  - c. Antibiotic teat dip
  - d. **Germicidal teat dip**
  
- 4) The Standard Plate Count (SPC) has a prescribed incubation time of \_\_\_\_\_ hours at \_\_\_\_\_ °C.
  - a. 24 hours at 32°C
  - b. 48 hours at 45°C
  - c. **48 hours at 32°C**
  - d. 12 hours at 45°C
  
- 5) One type of test for antibiotics, common adulterants of milk, is based upon the principle that the growth of bacteria is \_\_\_\_\_ by them.
  - a. Stimulated
  - b. Enhanced
  - c. Magnified
  - d. **Inhibited**
  
- 6) The \_\_\_\_\_ test is used to detect if milk has been pasteurized properly.
  - a. Lipase
  - b. Coliform
  - c. Standard Plate Count
  - d. **Phosphatase**

- 7) Milk provides \_\_\_\_\_ and \_\_\_\_\_ in approximately the same ratio as found in bone.
- a. Calcium and Magnesium
  - b. Calcium and Phosphorus**
  - c. Calcium and Iron
  - d. Phosphorus and Magnesium
- 8) Which of the following is not a cause of coliform mastitis?
- a. Cracked or split inflations
  - b. Milking too soon after calving**
  - c. Using excessive water in washing udders
  - d. Slightly damp, warm bedding
- 9) About \_\_\_\_\_ percent of the calcium available in the food supply is provided by milk and milk products.
- a. 66%
  - b. 76%**
  - c. 86%
  - d. 96%
- 10) Which of the following directly influence(s) the total supply of milk?
- a. Prices paid milk producers**
  - b. Manufacturing plants
  - c. Costs of fat production
  - d. Foreign exports
- 11) The pasteurized Milk Ordinance regulates what?
- a. Grade A milk**
  - b. Manufacturing grade milk
  - c. Grade B milk
  - d. Grade C milk
- 12) Dairy farmers can buy and sell dairy futures on what exchange?
- a. New York Stock Exchange
  - b. National Dairy Exchange
  - c. Coffee, Sugar, Coca Exchange
  - d. Chicago Mercantile Exchange**
- 13) According to the Food & Nutrition Board of the National Academy of Sciences, all people need at least \_\_\_\_\_ milligrams of calcium per day.
- a. 100
  - b. 1000**
  - c. 10,000
  - d. 100,000

- 14) The cheese price series is based on 63 U.S. cheese plants that make 80-85 percent of the bulk Cheddar. What is the price series called?
- NASS Cheese Price Survey
  - NASS Cheddar Cheese Price Survey**
  - NASS Swiss Cheese Price Survey
  - U.S. Cheddar Cheese Price Survey
- 15) What marketing tool would be used in the futures market by someone who owns a commodity such as milk and intends to sell it sometime in the future?
- Basis contract
  - Pooling contract
  - Short Hedge**
  - Speculating buyer
- 16) Farm water supplies must be protected from surface contamination. Water is usually tested for \_\_\_\_\_ as an indicator of possible sewage contamination.
- Proteolytic bacteria
  - Lipolytic bacteria
  - Coliform bacteria**
  - Psychotropic bacteria
- 17) Specific gravity of milk at 60°F is \_\_\_\_\_.
- 1.022
  - 1.032**
  - 1.033
  - 1.042
- 18) The International Dairy Federations (IDF) mission is to promote \_\_\_\_\_.
- Scientific, cultural & economic progress
  - Agricultural, technical & economic progress
  - Technical, scientific & industrial progress
  - Scientific, technical & economic progress**
- 19) USDA reports net prices received by dairy farmers for milk, usually the prices are published on a map to show regional differences. The prices are referred to as \_\_\_\_\_.
- Blend prices
  - Regional prices
  - Mailbox prices**
  - BFP prices

- 20) The “set aside” of \$0.15 per hundred pounds of milk from a milk producer’s check is used in programs that support \_\_\_\_\_.
- Promotions & research**
  - Research & testing
  - Teaching & promotion
  - Promotion & teaching
- 21) What is the most popular size container used for fluid milk?
- Gallon**
  - Half Gallon
  - Quart
  - Five quart bulk
- 22) Onion and garlic are responsible for the garlic/onion off-flavor in milk, and are more prevalent in pasture during \_\_\_\_\_.
- Fall
  - Spring
  - Early and late summer
  - Early spring and late fall**
- 23) Chemical sanitizers containing \_\_\_\_\_ are most widely used for sanitizing milking equipment.
- Bromine
  - Saline
  - Chlorine**
  - Iodine
- 24) Milk found in cows with a high somatic cell count would result in a decrease in \_\_\_\_\_.
- Butterfat
  - Whey protein
  - Casein**
  - Trace minerals
- 25) Milk is a good supplier of minerals except for \_\_\_\_\_.
- Magnesium-Iron-Manganese-Copper**
  - Riboflavin-Magnesium-Lactose-Manganese
  - Phosphorus-Copper-Zinc-Calcium
  - Potassium-Boron-Iron-Calcium
- 26) Adulterants of milk that are detrimental to human health are \_\_\_\_\_.
- Proteins
  - Pesticides**
  - Water
  - Minerals

- 27) Water added to milk is detected by checking the \_\_\_\_\_.  
a. Acid degree value  
b. Sediment content  
c. Titratable acidity  
**d. Freezing point**
- 28) Milk with low total solids will produce what off-flavor?  
**a. Flat**  
b. Malty  
c. Salty  
d. Acid
- 29) A cryoscopy is an important tool that test for \_\_\_\_\_ in milk.  
a. Butterfat  
b. Antibiotics  
c. Pesticides  
**d. Added water**
- 30) Milk is the only source of \_\_\_\_\_ in nature.  
a. Calcium  
b. Phosphorous  
**c. Lactose**  
d. Fatty acids
- 31) Which of the following is not an important reason for a five day-seven degree shelf life test?  
a. Psychotropic bacteria reproduce at this temperature  
b. Meaningful data can be available for control application in a reasonable time  
**c. It lowers variability among cartons of milk**  
d. The Temperature is at or near the maximum at which milk will be stored
- 32) The ideal cleaning material for removing milk stone from milking equipment surfaces is \_\_\_\_\_.  
**a. Acidic detergent**  
b. Phosphate  
c. Surfactant  
d. Chelate
- 33) The somatic cell count standard for Grade A raw milk is \_\_\_\_\_ or less per milliliter of milk.  
a. 500,000  
**b. 750,000**  
c. 1,000,000  
d. 1,500,000

- 34) The ability of lipase in milk to attack milk fat and produce a rancid off flavor is enhanced by:
- a. Excessive agitation of warm raw milk**
  - b. Poorly cleaned milking equipment
  - c. Exposing milk to sunlight
  - d. Feeding cows moldy hay
- 35) In \_\_\_\_\_ when the Capper-Volstead Act was enacted, cooperatives were given the right and power to organize producers of a farm commodity to its fullest extent.
- a. 1829
  - b. 1959
  - c. 1729
  - d. 1929**
- 36) The two most important etiologic agents of mastitis are \_\_\_\_\_.
- a. Streptococcus agalactiae and Staphylococcus aureus**
  - b. Streptococcus uberis and Streptococcus dysgalactiae
  - c. Pseudomonas aeruginosa and coliform bacteria
  - d. Klebsiella and actinomycetes
- 37) \_\_\_\_\_ cause(s) off flavors in milk such as acid, high acid, or sour milk.
- a. Chemical adulterants
  - b. Microorganisms**
  - c. Sediment
  - d. Weeds
- 38) Aflatoxins sometimes found in dairy feeds are produced by:
- a. Protozoa
  - b. Bacteria
  - c. Mold**
  - d. Yeasts
- 39) With the exception of \_\_\_\_\_, all of the following off flavors of milk are caused by bacteria.
- a. Bitter
  - b. Malty
  - c. Yeasty
  - d. Salty**

- 40) The Grade A Pasteurized Milk Ordinance (PMO) specifies requirements for the production of Grade A raw milk for pasteurization and is recommended by \_\_\_\_\_.
- a. **The Food and Drug Administration**
  - b. The Small Business Administration
  - c. The U.S. Department of Agriculture
  - d. The National Committee on Milk
- 41) In Federal order markets, milk sold for consumption in fluid form is in \_\_\_\_\_.
- a. Class IV
  - b. Class III
  - c. Class II
  - d. **Class I**
- 42) Milk covered by Federal milk marketing orders is \_\_\_\_\_.
- a. **Grade A**
  - b. Grade B
  - c. Grade C
  - d. Grade A, B, C
- 43) The largest percentage of the U.S. milk supply is utilized in the production of \_\_\_\_\_.
- a. Cream and specialty sales
  - b. **Cheese**
  - c. Frozen dairy desserts
  - d. Evaporated, condensed and dry products
- 44) Operating costs of Federal orders are paid by \_\_\_\_\_.
- a. The State Department of Agriculture
  - b. The Federal government
  - c. The milk producers
  - d. **The milk handlers**
- 45) One objective of a federal order is to \_\_\_\_\_.
- a. Assure all dairy farmers an adequate income
  - b. **Assure consumers an adequate supply of pure, wholesome milk**
  - c. Assure that all dairy plants receive an adequate supply of milk
  - d. Prevent surpluses of milk in the marketplace
- 46) Federal Definitions and Standards of Identity specify that Whole Milk contain not less than \_\_\_\_\_.
- a. 3.00 percent milk fat and 8.25 percent solids-not-fat
  - b. 3.50 percent milk fat and 8.50 percent solids-not-fat
  - c. 3.50 percent milk fat and 8.00 percent solids-not-fat
  - d. **3.25 percent milk fat and 8.25 percent solids-not-fat**

- 47) Cheddar cheeses sold in the United States, which are not made from pasteurized milk, must be ripened at least \_\_\_\_\_ days.
- a. 30
  - b. 60**
  - c. 120
  - d. 150
- 48) The establishment of a Federal milk marketing order is generally initiated by \_\_\_\_\_.
- a. Dairy farmers, through their cooperative association**
  - b. Milk handlers in the market
  - c. Consumers
  - d. Dairy farmers, milk handlers and consumers
- 49) A milk order, including pricing and other provisions, becomes effective only after approval by \_\_\_\_\_.
- a. Consumers
  - b. Dairy farmers**
  - c. Milk processors
  - d. Secretary of Agriculture
- 50) Federal milk marketing orders give \_\_\_\_\_ an active voice in determining minimum milk prices through public hearings.
- a. Milk activists
  - b. Milk handlers**
  - c. Milk processors
  - d. Milk consumers
- 51) The rules States adopt to govern the production, processing, packaging and storage of Grade A milk are based on \_\_\_\_\_.
- a. The Code of Federal Regulations
  - b. The Pasteurized Milk Ordinance and Code**
  - c. USDA Rules and Regulations
  - d. The Pure Milk Act of 1937
- 52) Flavors of milk may be caused in general by \_\_\_\_\_.
- a. Water content of the milk
  - b. Temperature that milk is stored
  - c. Feeds consumed by the cow**
  - d. Amount of sun light the cow receives
- 53) The major cause of the salty flavor in milk is \_\_\_\_\_.
- a. The large intake of salt by the cow
  - b. Associated with sunlight exposure
  - c. Mastitis**
  - d. Bacteria



- 54) \_\_\_\_\_ is a test for rancidity.
- Acid degree value**
  - Cryoscope
  - Disc assay
  - Titrateable acidity
- 55) Mastitis in milk \_\_\_\_\_.
- Has a direct effect on cheese yield**
  - May cause increased rancidity
  - Decreases calcium content
  - Increases protein content
- 56) Which of the following is not one of the duties of the bulk milk hauler, who plays a critical role in milk handling?
- Checking milk temperature
  - Making sure equipment has been cleaned correctly**
  - Examining milk to determine appearance
  - Collecting a representative sample to be used for tests
- 57) Milk with an Acid Degree Value (ADV) of 1.0 or above will have a detectable \_\_\_\_\_ flavor.
- Rancid**
  - Malty
  - Acidic
  - Fruity
- 58) The four primary taste sensations are \_\_\_\_\_.
- Bitter, metallic, sour, sweet
  - Bitter, salt, sour, sweet**
  - Metallic, salt, sour, sweet
  - Burnt, bitter, salt, sour
- 59) Lactose is the principal \_\_\_\_\_ in milk.
- Fat
  - Protein
  - Carbohydrate**
  - Mineral
- 60) The most effective and economical means of reducing the exposure of cows to mastitis causing microorganisms is to \_\_\_\_\_.
- Isolate animals with clinical mastitis
  - Disinfect or sterilize milking machine inflation's between cows
  - Wear rubber or plastic gloves during milking and disinfect the gloves between cows
  - Use a bactericide for disinfecting the teats after milking**

- 61) Most farm bulk milk tanks are designed for every-other-day (EOD) pickup and must cool 25 percent of the volume of the tank to \_\_\_ degrees F within two hours after milking.
- 25
  - 45**
  - 60
  - 70
- 62) A consumer found an off-flavor in milk packaged in transparent plastic and exposed to high intensity fluorescent light. The off-flavor probably was
- High acid
  - Bitter
  - Oxidized**
  - Rancid (lipolyzed)
- 63) Which group of flavors cannot be detected by odor?
- Bitter, salty**
  - High acid, rancid
  - Feed, garlic/onion
  - Metallic/oxidized, malty
- 64) Milk used to make ice cream would be priced in what Federal Order class?
- Class I
  - Class II
  - Class II
  - Class IV
- 65) \_\_\_\_\_ is the time after processing during which a dairy product normally remains suitable for human consumption.
- Code date
  - Product life
  - Package date
  - Shelf date**
- 66) The off flavor most likely to be found in milk that has not been cooled properly is:
- Sour**
  - Rancid
  - Oxidized
  - Bitter
- 67) The Babcock test is a rapid, simple and accurate test for:
- Water in milk
  - Titrateable acidity
  - Fat content**
  - Nonfat milk solids content

- 68) To remove fat from milking equipment use:
- a. **Alkaline cleaner in hot water**
  - b. Alkaline cleaner in cold water
  - c. Acid cleaner in cold water
  - d. Acid cleaner in hot water
- 69) Quality of grade A milk is:
- a. **Not controlled by Federal Orders**
  - b. The first consideration in pooling milk
  - c. A part of the testing by Market Administrators
  - d. Only checked if there is excess milk
- 70) Federal Milk Marketing Orders provide or describe:
- a. Sanitary standards used for grade A
  - b. Milk purchased by dealers
  - c. Milk sold by farmers
  - d. **Payment made to milk producers for milk**
- 71) It takes approximately \_\_\_\_\_ lbs. of whole milk to make one pound of whole milk cheddar cheese.
- a. 5
  - b. **10**
  - c. 13
  - d. 22
- 72) Federal Milk Marketing Orders are a mechanism for:
- a. The most economical utilization of milk
  - b. Finding a market for every producer's milk
  - c. Economical transportation of milk
  - d. **Market stabilization**
- 73) Cow's milk contains \_\_\_\_\_ percent lactose.
- a. Three
  - b. Four
  - c. **Five**
  - d. Six
- 74) For the maximum intake of calcium, one should consume\_\_\_\_\_.
- a. Whole Milk
  - b. 2% Milk
  - c. 1% Milk
  - d. **Skim Milk**

- 75) While some extra-label drugs can be used by food-producing animals, others cannot. Which of the following is/are an illegal drug(s)?
- Clenbuterol**
  - Penicillin
  - Tetracycline
  - Ivomec
- 76) The fat in one serving of whole milk (8 ounces) provides \_\_\_\_\_ calories.
- 85
  - 90**
  - 95
  - 100
- 77) The most prevalent off flavor of fluid milk is \_\_\_\_\_.
- Malty
  - Oxidized
  - Flat
  - Feed**
- 78) The microbiological standard for Grade A raw from single procedure is \_\_\_\_\_ bacteria per millimeter of milk prior to co-mingling with milk from other producers.
- 200,000
  - 150,000
  - 100,000**
  - 50,000
- 79) Pasteurization is the process of heating every particle of milk and milk products to the minimum required \_\_\_\_\_ and holding it continuously for the minimum required \_\_\_\_\_ in equipment that is properly designed and operated.
- Temperature and length
  - Time and temperature
  - Temperature and time**
  - Time and length
- 80) The major reason milk from cows treated with antibiotics must be withheld from the milk supply is because \_\_\_\_\_.
- A large proportion of the human population is sensitive to antibiotics**
  - Antibiotics increase the somatic cell count of milk
  - Antibiotics cause an off-flavor in milk
  - Antibiotics kill some of the good bacteria found in milk

- 81) When cows have mastitis, the protein content of milk may be higher, but the cheese yield is lower because of a decrease in \_\_\_\_\_ protein.
- a. Lysine
  - b. Casein**
  - c. Tryptophan
  - d. Whey
- 82) Bacteria that survive specific heat treatment are said to be \_\_\_\_\_.
- a. Psychotropic
  - b. Coliform
  - c. Psychrophilic
  - d. Thermoduric**
- 83) \_\_\_\_\_ is exposure of hot milk or milk product to reduced pressure to affect the removal of volatile substances, especially those that enter milk from feed.
- a. Vaporization
  - b. Infusion heater
  - c. Vacuumization**
  - d. Vac Pac process
- 84) A high acid flavor (sour) in milk is caused by \_\_\_\_\_.
- a. Growth of bacteria in the milk**
  - b. Exposure of cows to acid rain
  - c. Drinking hard water
  - d. Absorption of acid from corn silage
- 85) The enzyme \_\_\_\_\_ is almost completely inactivated during pasteurization.
- a. Lactose
  - b. Acid glycerol
  - c. Alkaline phosphatase**
  - d. Free fatty acids
- 86) A pooling method, where by, handlers with higher than average utilization pay into and handlers with lower than average utilization receives payment from is called \_\_\_\_\_.
- a. Base excess pricing
  - b. Louisville take out and pay back
  - c. Individual handler pools
  - d. Producer settlement fund**
- 87) The absence of \_\_\_\_\_ and \_\_\_\_\_ is not an accident, because they would catalyze oxidation, their producing metallic or oxidized flavors.
- a. Lead-casein
  - b. Boron-tin
  - c. Iron-copper**
  - d. Zinc-brass

- 88) The CMT test results that indicate a somatic cell count of 400000 to 1500000 are \_\_\_\_\_.  
a. Mixture thickens with slight gelation  
b. Viscous gel forms, mass adheres to paddle  
**c. Distinct precipitate forms, but no gel**  
d. Slight precipitate forms and tends to disappear
- 89) Which of the following is **not** a part of the establishment of a federal marketing order?  
a. A public hearing is held for the producers-handlers and the public  
**b. Must be approved by 2/3 of the producers supplying 3/4 of the milk**  
c. Cooperative associations of milk producers petition the U.S. Secretary of Agriculture  
d. A producer cooperative may vote all its members who deliver milk during a certain period.
- 90) To reduce the feed flavor in milk to acceptable levels, cows should be removed from offending feeds \_\_\_\_\_ hours before milking.  
a. 1-2  
**b. 2-4**  
c. 4-6  
d. 6-8
- 91) The only persons regulated by federal orders are \_\_\_\_\_.  
a. Farmers  
b. Truckers  
**c. Handlers**  
d. Retail store owners
- 92) The increased use of bulk cooling and storage equipment has made \_\_\_\_\_ bacteria the primary organisms in raw milk.  
**a. Psychrophilic**  
b. Coliform  
c. Staphylococcus  
d. Streptococcus
- 93) \_\_\_\_\_ is the cause of the rancid flavor in milk.  
a. Feeding high moisture corn  
b. Feeding haylage  
c. Storing milk in the sunlight  
**d. Extreme agitation of raw milk**

- 94) Which of the following does not promote metallic/oxidized off flavor in milk?
- a. **Hypochlorite sanitizer**
  - b. Sunlight
  - c. Fluorescent light
  - d. Copper
- 95) Whole milk contains \_\_\_\_\_ percent protein.
- a. 1.5-2.5
  - b. 2.5-3.5
  - c. **3.5-4.0**
  - d. 4.0-4.5
- 96) Which of the following is not an objective of milk evaluation?
- a. Determining the presence of desirable characteristics
  - b. **Determining one brand of milk from another**
  - c. Determining whether one sample differs from another
  - d. Determining presence and magnitude of undesirable characteristics
- 97) Mastitis infecting microorganisms almost invariably gain entrance to the mammary gland via the \_\_\_\_\_.
- a. Caudal base
  - b. Blind quarter
  - c. **Streak canal**
  - d. Feed
- 98) A \_\_\_\_\_ cup is a cup with fine wire mesh on top used to detect the presence of abnormal milk.
- a. Striated
  - b. Mesh
  - c. Streak
  - d. **Strip**
- 99) A \_\_\_\_\_ needs to be applied to the teat end in order for a milking machine to remove milk.
- a. Massaging action
  - b. Pulsation
  - c. **Vacuum**
  - d. Pressure
- 100) Which of the following four primary taste sensations is correctly matched with the causal agent?
- a. Salty-sugar
  - b. **Bitter-quinine**
  - c. Sweet-lactic acid
  - d. Sour-table salt

- 101) Some streptococci that produce lactic acid also produce certain aldehydes, which impart a \_\_\_\_\_ flavor.
- a. **Malty**
  - b. Bitter
  - c. Salty
  - d. Metallic
- 102) By using a \_\_\_\_\_ with plastic beads of varying density, nonfat solids in milk can be rapidly estimated.
- a. Lactometer
  - b. **Hydrometer**
  - c. Humidoscope
  - d. Polyscope
- 103) The two main proteins in milk are \_\_\_\_\_ and \_\_\_\_\_.
- a. Lactose, Lactalbumin
  - b. **Casein, Lactalbumin**
  - c. Ascorbic, Thiamin
  - d. Colgate, Casein
- 104) Vitamin \_\_\_\_\_ was first discovered in milk fat and is important to eyesight.
- a. **A**
  - b. B
  - c. C
  - d. D
- 105) Milk contains all the known vitamins and is an especially good source of \_\_\_\_\_.
- a. Cyanocobalmin
  - b. **Riboflavin**
  - c. Ascorbic Acid
  - d. Thiamine
- 106) Milk is a good source of all water-soluble vitamins except for \_\_\_\_\_.
- a. Cyanocobalmin
  - b. Riboflavin
  - c. **Ascorbic Acid**
  - d. Thiamine
- 107) \_\_\_\_\_ is a milk process that makes milk more easily digested by those with a sensitive digestive system.
- a. Ionization
  - b. Evaporation
  - c. Pasteurization
  - d. **Homogenization**



- 108) \_\_\_\_\_ amino acids are commonly found in milk proteins, including the essential amino acids.
- 7
  - 12
  - 14
  - 19**
- 109) Summer milk has been estimated to contain 1.6 times as much vitamin \_\_\_\_ as winter milk.
- A**
  - B
  - C
  - D
- 110) The milk becomes the property of the buyer once....
- The transport truck reaches the plant
  - It is loaded into the transport truck on the farm**
  - The transport truck leaves the farm
  - It is unloaded into the processor's bulk tanks
- 111) Cows with \_\_\_\_\_ have a higher incidence of mastitis because physical injury is more likely.
- Sickled hocks
  - Horns
  - Lower foot angles
  - Pendulous udders**
- 112) Which of the following is untrue concerning the federal milk marketing orders?
- They are legal instruments
  - It is a uniform system of classified pricing
  - Producers are not guaranteed a market
  - Sanitary restrictions on production are imposed on producers.**
- 113) The \_\_\_\_\_ or uniform price is determined by the proportion of the total delivery used in products of these classes.
- Classified
  - Average
  - Parity
  - Blend**
- 114) Under federal orders, dairy farmers receive their milk checks\_\_\_\_\_.
- Once or twice monthly**
  - Weekly
  - Bi-monthly
  - Directly from the FSA office

- 115) To defray the cost of federal orders, handlers are assessed \_\_\_\_ per hundredweight of milk received.
- a. 1-3 cents
  - b. 2-5 cents**
  - c. 3-4 cents
  - d. 15 cents
- 116) Which is a true statement concerning federal milk marketing orders?
- a. Public hearings are held so that all interested parties may present their views.**
  - b. They remove the need for cooperatives.
  - c. They are designed to weaken the bargaining power of single large dairy farmers.
  - d. They assure the corrected weighting, testing and sanitary conditions of milk.
- 117) The hormone oxytocin is released by the \_\_\_\_ gland. This act stimulates the mammary gland.
- a. Pituitary**
  - b. Sweat
  - c. Endocrine
  - d. Vascular
- 118) Rubber parts readily absorb \_\_\_\_ and need to be cleaned in an alkaline detergent.
- a. Protein
  - b. Carbohydrates
  - c. Milk fat**
  - d. Minerals
- 119) The main objection to dirt and milk stone on parts is \_\_\_\_.
- a. Vacuum fluctuations
  - b. Poor milkers function
  - c. Poor looks
  - d. Increased bacterial count**
- 120) Badly dented or damaged milkers unit parts are caused by
- a. Strong chemicals
  - b. Improper design
  - c. Careless handling**
  - d. Solvents

- 121) By regulation, milk from cows treated with antibiotics usually must be withheld for \_\_\_\_\_ hours.
- 48 – 72**
  - 30 – 60
  - 48 – 108
  - 72 – 96
- 122) Rules developed by the \_\_\_\_\_ are designed to protect the health and welfare of consumers.
- United States Department of Agriculture (USDA)
  - Protein and Lactose Organization (PLO)
  - Future Farmers of America (FFA)
  - Food and Drug Administration (FDA)**
- 123) The standard plate count (SPC) estimates the total numbers of \_\_\_\_\_ microorganisms.
- Mild
  - Yeast
  - Anaerobic
  - Aerobic**
- 124) The predominant bacteria of milk that produces lactic acid, which is responsible for the sour taste of milk are the:
- Streptococci**
  - Psychrophilic
  - Coliform
  - Streptococcus
- 125) The traditional method of pricing milk has used a milk fat differential of one tenth of one percent from a milk fat base of \_\_\_\_\_ percent.
- 3.0
  - 3.2
  - 3.5**
  - 3.7
- 126) The United States government purchases surplus \_\_\_\_\_ from the commercial market under the dairy price support program.
- Fluid milk products, butter, cheese
  - Cheese, nonfat dry milk, butter**
  - Butter, evaporated milk, ice cream
  - Ice milk, yogurt, cottage cheese

- 127) The feed additive isoacid gives a \_\_\_\_\_ pound daily milk response, with maximum response in early lactation.
- a. 2 to 4
  - b. 4 to 6**
  - c. 6 to 8
  - d. 8 to 10
- 128) Mixture of milk and cream containing not less than 10.5 percent milk fat, but less than 18 percent milk fat, is the definition of
- a. Light whipping cream
  - b. Light cream
  - c. Half-and-half**
  - d. Heavy cream
- 129) One of the mechanisms used by the USDA to remove surplus dairy products from the supply is to subsidize manufacturers who sell overseas at a loss. This is called the
- a. Price Support Program
  - b. Butter-Powder Formula
  - c. Dairy Export Incentive Program**
  - d. Commodity Credit Program
- 130) Under which of the following weather conditions would you expect to observe the greatest decrease in milk yield per cow?
- a. Cold and dry
  - b. Hot and humid**
  - c. Cool and humid
  - d. Warm and dry
- 131) Although milk from the cow is processed, it is not an engineered or fabricated food and contains about \_\_\_\_\_ % solids.
- a. 3.5
  - b. 13**
  - c. 76
  - d. 87
- 132) Dairy cows need \_\_\_\_\_ day dry periods for rejuvenation of secretory tissue and restoration of body condition.
- a. 30
  - b. 60**
  - c. 90
  - d. 120

- 133) Due to high leukocyte counts, farmers should not use the CMT before the \_\_\_\_\_ day after calving or test milk from cows that are being dried off.
- First
  - Second
  - Third**
  - Fourth
- 134) From the mid 1950's until 2009, the size of the U.S. dairy herd has:
- Decreased by 50%**
  - Remained static
  - Increased by 50%
  - More than doubled mirroring the population growth
- 135) From the mid 1950's until 2009, individual production per cow has:
- Remained static
  - Increased by 50%
  - Increased by 100%
  - Increased by 400%**
- 136) The first milk produced after parturition is called:
- Colostrum**
  - Celestial
  - Serial
  - Coliseum
- 137) Transitional milk is the label given to the milk produced in:
- One retail region and moved to another retail region for processing
  - From the Colostrum stage to 11<sup>th</sup> milking which can not be legally marketed for human consumption**
  - From the truck to the holding silos, not yet in the production cycle
  - Produced at the end of a lactation but before the cow is transitioned into the dried state
- 138) It requires \_\_\_\_\_ pound(s) of milk to produce one pound of butter.
- 1
  - 11
  - 22**
  - 33
- 139) It requires \_\_\_\_\_ pound(s) of milk to produce one gallon of gourmet ice cream.
- 8
  - 12**
  - 16
  - 24

- 140) To prevent milk fat from separating itself from the fluid portion of the milk is:
- Homogenized**
  - Pasteurized
  - Sterilized
  - Thermalized
- 141) Fat globules in raw milk average about \_\_\_\_\_ in diameter:
- 1/25,000 of an inch, more or less 1 micron
  - 6/25,000 of an inch, more or less 6 microns**
  - 1/2,500 of an inch, more or less 100 microns
  - 1/250 of an inch, more or less 1000 microns
- 142) Evaporated milk has been preheated to stabilize the protein, followed by the removal of:
- 30% of the water
  - 60% of the water**
  - 90% of the water
  - All of the fat
- 143) Condensed milk on the grocery shelf may have \_\_\_\_\_ added.
- Salt
  - Minerals
  - Sugar**
  - Cream
- 144) The major difference between Evaporated and Condensed milk is:
- Evaporated milk has less water than condensed milk
  - Evaporated milk can be stored non-refrigerated, while condensed milk requires refrigeration**
  - Condensed milk has a lower fat content than evaporated milk
  - Condensed milk comes in smaller size containers than evaporated milk
- 145) Dry milk must have less than \_\_\_\_\_% moisture by weight.
- 5%**
  - 10%
  - 15%
  - 25%
- 146) Dry milk can be stored for long periods of time:
- In refrigerated vaults
  - At temperatures above 150 degrees
  - In an open container in the cabinet
  - In a sealed atmosphere of nitrogen or carbon dioxide**

- 147) "Cultured" in front of the name of a milk product indicates:
- a. Product is older and more mature
  - b. Product is highly refined
  - c. Product has appropriate bacteria added to it**
  - d. Product has been through a school and is more expensive
- 148) A "acidified" label on a milk product indicates that the product was produced by:
- a. Souring the milk**
  - b. Enriching the milk with added iron
  - c. Cows consumed acid rain water
  - d. Passing the milk through a reverse osmosis filtration system
- 149) Cottage cheese from the grocery shelf must contain no less than:
- a. .5% fat
  - b. 1% fat
  - c. 2% fat
  - d. 4% fat**
- 150) Low fat cottage cheese must contain a maximum of:
- a. .5% fat
  - b. 1% fat
  - c. 2% fat**
  - d. 4% fat
- 151) Curd is the \_\_\_\_\_ during the cheese making process.
- a. A region which supplies substantial components required
  - b. Material found in the stomach of young calves necessary
  - c. Liquid portion at the bottom on the container that is hard to dispose of
  - d. Custard-like substance formed at the top of the container**
- 152) Butter is made from milk and/or cream and must contain a minimum of:
- a. 5% fat
  - b. 20% fat
  - c. 50% fat
  - d. 80% fat**
- 153) Cottage cheese is a soft, unripened cheese with approximately \_\_\_\_\_ moisture content.
- a. 20%
  - b. 50%
  - c. 80%**
  - d. 100%

154) Parmesan and/or Romano cheese are very hard grated/shaken cheese with \_\_\_\_\_ moisture content.

- a. 20%
- b. 30%
- c. **50%**
- d. 70%

155) Rennet is used in many milk products to produce a thicker bodied product.

Natural rennet comes from:

- a. Mines in Eastern China
- b. Microscopic plants growing the ocean
- c. **Inside the stomach of young calves**
- d. Composted cow manure treated with UV rays

156) Cultured sour cream is required by Federal standards to have a minimum of \_\_\_\_\_.

- a. 3.25% fat
- b. 5% fat
- c. 10% fat
- d. **18% fat**

157) Sour Cream frequently develops a bitter flavor due to continued bacterial proteolytic enzyme activity when stored for more than:

- a. 1 week
- b. **3-4 weeks**
- c. 6-8 weeks
- d. 10-12 weeks

158) Yogurt is manufactured from fresh, whole, low fat or skim milk that is heated before fermentation. However, Federal standards require yogurt to have a minimum of \_\_\_\_\_ fat.

- a. .5%
- b. 1%
- c. 2%
- d. **3.25%**

159) Low-fat yogurt must have a minimum of \_\_\_\_\_ fat and a maximum of \_\_\_\_\_ fat.

- a. 1%, 4%
- b. .5%, 2.5%
- c. **.5%, 2%**
- d. 1%, 3.25%



- 160) Non-fat yogurt must have a maximum of \_\_\_\_\_ fat prior to the addition of bulky flavors.
- a. **.5%**
  - b. 1%
  - c. 2%
  - d. 3.25%
- 161) Cream is a liquid milk product separated from the fluid milk that must contain a minimum of:
- a. 4% fat
  - b. 10% fat
  - c. 14% fat
  - d. **18% fat**
- 162) Heavy cream (whipping cream) contains a minimum milk fat of:
- a. 10%
  - b. 18%
  - c. 30%
  - d. **36%**
- 163) Dry cream is produced by removing the water from pasteurized milk and/or cream. Dry cream is required to contain a minimum of:
- a. 18% fat
  - b. 30% fat
  - c. **40% fat**
  - d. 75% fat
- 164) Dry cream is produced by removing the water from pasteurized milk and/or cream. Dry cream will have a maximum milk fat of \_\_\_\_\_ for economic factors.
- a. 18%
  - b. 30%
  - c. 40%
  - d. **75%**
- 165) Buttermilk is the product resulting from:
- a. Addition of extra fat to raw fluid milk
  - b. **Removal of the butter (fat particles) form raw fluid milk**
  - c. Heating of both butter and milk to facilitate the blending of them together
  - d. Artificial product produced using non-saturated vegetable oils
- 166) Two states dominate the total U.S. cheese production. These two states are:
- a. Texas and California
  - b. Texas and Florida
  - c. New York and Wisconsin
  - d. **Wisconsin and California**

- 167) Some soft serve frozen dairy products have replaced milk fat with:
- Peanut butter
  - Honey
  - Fruits
  - Vegetable oil**
- 168) By FDA definition of an imitation product, which of the following is NOT true:
- Taste like the real product it represents
  - Has the same nutritional value as the real product it represents**
  - Looks like the real product it represents
  - Imitation products are not regulated by the FDA
- 169) A substitute product by FDA definition meets all of the following statements except:
- Taste like the real product it represents
  - Has the same nutritional value as the real product in replaces
  - Looks like the real product it represents
  - Imitation products are not regulated by he FDA**
- 170) Some dairy food products have a “REAL” seal on the package. This seal cannot be placed on a package that does NOT adhere to the following standards.
- Produced from U.S. milk
  - Meets federal and state standards
  - Imitation or substitute foods
  - Produced from NON-organic sources**
- 171) Osteoporosis may be reduced by consuming adequate quantities of milk and/or milk products. Osteoporosis is the:
- Inflammation of the skin cells causing hair loss and scaling of the skin
  - Deterioration of the soft tissue in the retina, leading to blurry vision and poor eye sight
  - Loss of bone mass due to decrease in the bone matrix and minerals**
  - Development of a hard calloused layer of skin upon the sole of the foot
- 172) Properly processed UHT milk may be stored at room temperature for:
- 24-28 hours
  - 10-15 days
  - Several weeks**
  - 6 months
- 173) Milk sold through commercial outlets is certified to be from herds free of:
- B.S.T.
  - Displaced Abomasums
  - Broken Udder Suspensory Ligaments
  - Tuberculosis**

- 174) Humans may contract \_\_\_\_\_ from using raw cows' or goats' milk, should the animals have brucellosis.
- Undulant fever**
  - Mumps
  - Whooping cough
  - Night blindness
- 175) Milk is produced from female's mammary glands. These mammary glands are examples of a:
- Adrenal gland
  - Excretory gland
  - Absorbatory gland
  - Exocrine gland**
- 176) The secretory tissue within the mammary gland is a grapelike structure called:
- Alveoli**
  - Clitoris
  - Glanus cistern
  - Annular ring
- 177) The California Mastitis Test (CMT) asks that you used only \_\_\_\_\_ milk.
- Colostrum
  - Milk after dry-off
  - The first stream during milking
  - The 2<sup>nd</sup> stream during milking**
- 178) How many cc's of milk is required for the CMT?
- 6 cc
  - 4 cc
  - 2 cc**
  - ½ cc
- 179) The CMT should be read within \_\_\_\_\_.
- 10 sec
  - 20 sec**
  - 30 sec
  - 40 sec
- 180) What is the healthiest range for somatic cell counts?
- 400,000-1,200,000
  - 200,000-400,000
  - 0-200,000**
  - 5,000,000+

- 181) If the CMT has a somatic cell count of 1,200,000 to 5,000,000 what is the interpretation?
- a. Serious mastitis**
  - b. Subclinical mastitis
  - c. Negative (healthy)
  - d. None of the above
- 182) What does HACCP stand for?
- a. High Altitude Computer Control Protocol
  - b. High Aptitude Critical Consideration and Punctuality
  - c. Help Animals in Confined Conditions and Preserves
  - d. Hazard Analysis and Critical Control Points**
- 183) Milk must be held at 191 degrees F for \_\_\_\_\_ to be considered pasteurized
- a. 30 minutes
  - b. 1 second**
  - c. 2 seconds
  - d. 5 minutes
- 184) According to HACCP, what is a receiving station?
- a. Where supplies are received
  - b. Where trucks receive milk
  - c. Anywhere raw milk is received, handled, stored, etc**
  - d. Where cows enter to be milked
- 185) How often will HACCP inspect each Dairy Farm?
- a. A minimum of every 6 months**
  - b. A minimum of once each year
  - c. A minimum of once each month
  - d. A minimum of every 2 years
- 186) When sanitizing milking equipment with water, the temperature must be a minimum of 170 degrees F and the utensils are to be under the flow of water for \_\_\_\_\_ minutes.
- a. 10
  - b. 15
  - c. 1
  - d. 5**
- 187) Milk protein allergies are a form of milk intolerance. These generally occur only in infants and is usually outgrown by:
- a. 6 month of age
  - b. 12 months of age
  - c. 18 months of age
  - d. 24 months of age**

- 188) Low levels of the enzyme lactase may lead to lactose intolerance. Symptoms of lactose intolerance include ALL of the following EXCEPT:
- a. **Headaches**
  - b. Nausea
  - c. Diarrhea
  - d. Abdominal cramps
- 189) The maximum moisture content of Cheddar cheese is:
- a. 12%
  - b. 23%
  - c. 30%
  - d. **39%**
- 190) An example of an extra hard cheese is:
- a. **Parmesan**
  - b. Muenster
  - c. Ricotta
  - d. Brie
- 191) To add the mold to the blue cheese it is mainly:
- a. **Injected into the cheese**
  - b. Grown on the cheese
  - c. Mixed in the whey mixture
  - d. None of the above
- 192) What is the average fat content of Brie?
- a. 15%
  - b. 30%
  - c. **45%**
  - d. 65%
- 193) Cream cheese is different from cottage cheese because:
- a. Cream cheese is an acid curd and cottage cheese is not
  - b. Cream cheese is made from cows' milk and cottage cheese is not
  - c. **Cream cheese requires a started culture of bacteria and cottage cheese does not**
  - d. All of the above are true for both Cream cheese and cottage cheese
- 194) Gouda can be described by all of the following except:
- a. Semi-hard
  - b. Yellow colored
  - c. Rind coating
  - d. **Tart flavor**

195) Monterey Jack cheese has a maximum moisture content of \_\_\_\_\_ %  
a. 24  
b. 36  
**c. 44**  
d. 60

196) To make Mozzarella cheese the pasteurized milk is curded at \_\_\_\_\_ degrees F.  
a. 45  
**b. 88**  
c. 145  
d. 190

197) The advantage of making processed cheese is:  
a. Better taste  
b. Marketing  
**c. Extended shelf-life**  
d. All of the above

198) The current U.S. per capita consumption of milk is approximately \_\_\_\_\_ gallons per year.  
a. 15  
**b. 20**  
c. 25  
d. 28

199) Today, an average dairy cow produces approximately \_\_\_\_\_ quarts of milk per cow annually.  
a. 5500  
b. 6500  
c. 6800  
**d. 8800**

200) In what year were Federal milk-marketing orders reformed?  
a. 1995  
**b. 2000**  
c. 2002  
d. 2004

201) Milk marketed, today as low-fat milk has no more than \_\_\_\_\_ % milk fat.  
a. 3.25  
b. 2.5  
c. 2  
**d. 1**

- 202) The whey proteins in milk constitutes about \_\_\_\_\_% of the protein found in milk.
- a. 10
  - b. 15
  - c. **18**
  - d. 20
- 203) Adolescents have a recommendation of \_\_\_\_\_ milligrams of calcium per day.
- a. 1000
  - b. 1200
  - c. **1300**
  - d. 1500
- 204) If vitamin A is added to milk, it must be at a level of no less than \_\_\_\_\_ international units (I.U.) per quart.
- a. 400
  - b. 1000
  - c. 1500
  - d. **2000**
- 205) Butter production now accounts for \_\_\_\_\_% of the total milk supply.
- a. 8
  - b. 15
  - c. **18**
  - d. 25
- 206) Light whipping cream has a minimum of \_\_\_\_\_% milk fat.
- a. 18
  - b. **30**
  - c. 35
  - d. 40
- 207) Today, milk that has been ultra pasteurized must have been heated at or above \_\_\_\_\_ degrees F for at last \_\_\_\_\_ seconds.
- a. 191, 2
  - b. 212, 3
  - c. 260, 2
  - d. **280, 2**
- 208) It takes approximately \_\_\_\_\_ pounds of skim milk to make a pound of dry curd cottage cheese.
- a. 4.3
  - b. **7.3**
  - c. 7.8
  - d. 8.6

- 209) It takes approximately \_\_\_\_\_pounds of skim milk to make one pound of non-fat dry-milk.
- a. 10
  - b. **11**
  - c. 12
  - d. 20
- 210) The leading state in 2009 in pounds of milk per dairy cow was:
- a. **New Mexico**
  - b. California
  - c. Arizona
  - d. Wisconsin
- 211) The national average milk production per cow in the U.S. is approximately \_\_\_\_\_ pounds per year.
- a. 18,400
  - b. 19,500
  - c. **20,500**
  - d. 22,600
- 212) Nearly \_\_\_\_\_% of the U.S. milk supply is used in the production of cheese.
- a. 15
  - b. 30
  - c. 35
  - d. **40**
- 213) Fluid milk accounts for \_\_\_\_\_% of the U.S. milk supply.
- a. **15**
  - b. 20
  - c. 22
  - d. 25
- 214) The top ten states in the U.S. now account for about \_\_\_\_\_% of the total milk supply.
- a. 50
  - b. 60
  - c. 65
  - d. **75**
- 215) The leading state in total milk production is?
- a. Wisconsin
  - b. Minnesota
  - c. **California**
  - d. New York



- 216) Which fluid milk product accounted for the largest use of fluid milk production sales?
- a. Flavored milk
  - b. **Reduced/low-fat milk**
  - c. Non-fat milk
  - d. Whole milk
- 217) Ice cream, including both hard and soft serves, represents \_\_\_\_\_% of the entire frozen dairy product market.
- a. 20-22
  - b. **25-26**
  - c. 28-30
  - d. 30-32
- 218) Which month during the year is the highest production month for ice cream?
- a. March
  - b. September
  - c. **June**
  - d. August
- 219) California is the leading state in production of ice cream, which state was second?
- a. Texas
  - b. **Indiana**
  - c. Minnesota
  - d. Colorado
- 220) Which of the following states listed is NOT in the top five for production of cheese?
- a. Idaho
  - b. Wisconsin
  - c. Minnesota
  - d. **New York**
- 221) The top five state in the production of cheese accounted for almost \_\_\_\_\_% of all U.S. cheese production.
- a. 29
  - b. 42
  - c. 51
  - d. **69**

- 222) The largest production of Italian cheese went to the production of \_\_\_\_\_ cheese.
- Cheddar
  - Brie
  - Mozzarella**
  - Provolone
- 223) Which one of the following “selected dairy products” has the greatest production in the U.S.?
- Non-fat dry milk
  - Butter
  - Yogurt**
  - Evaporated milk
- 224) The pound per capita of reduced and low-fat milk was \_\_\_\_\_ pounds/year.
- 32
  - 45
  - 50
  - 85**
- 225) The largest increase per capita in all dairy products in 2009 was:
- Cheese
  - Yogurt**
  - Low-fat milk
  - Ice cream
- 226) According to USDA’s economic research service, total per capita of all fluid products was approximately \_\_\_\_\_ pounds.
- 110
  - 137
  - 163
  - 177**
- 227) Approximately \_\_\_\_\_% of the frozen dessert market was ice cream. (Hard and soft and low-fat/non-fat)
- 56
  - 60.5
  - 70.7
  - 86.7**
- 228) More than \_\_\_\_\_ % of American household purchase cheese; including cream cheese.
- 69
  - 78
  - 86
  - 96**

- 229) Cheese consumption in the U.S. was approximately \_\_\_\_\_pounds per capita.
- 32
  - 36
  - 45
  - 51
- 230) The two most popular cheese varieties in the U.S. are?
- Cheddar and Monterey Jack
  - Cheddar and Colby
  - Cheddar and Mozzarella**
  - Cheddar and Swiss
- 231) The Italian cheese with the second largest per capita consumption was?
- Parmesan
  - Provolone**
  - Romano
  - Ricotta
- 232) The largest supermarket sales of cheese by type was:
- Cheddar**
  - Mozzarella
  - Processed American
  - Colby Jack
- 233) In 2009, the annual farm milk price was about \$\_\_\_\_\_ per hundredweight, down \$5.60 per hundredweight from 2008.
- 10.80
  - 12.80**
  - 14.10
  - 15.50
- 234) The milk-feed price ration (which relates the value of milk to the cost of feed) averaged \_\_\_\_\_in 2009 far below the 1999-2008 values.
- 1.78**
  - 1.9
  - 2.69
  - 2.89
- 235) The minimum price for all four classes of milk from the farm in 2009 compared to 2008:
- Increases slightly
  - Increased a large amount
  - Remained the same
  - Decreased**

- 236) The average Federal order price per hundredweight in 2009 for class 1 milk was \_\_\_\_\_ dollars per hundredweight.
- a. 10.89
  - b. 11.36
  - c. 13.10
  - d. **14.40**
- 237) The 2009 dairy export value was over 2 billion dollars down approximately \_\_\_\_\_% over 2008.
- a. 28
  - b. 30
  - c. **40**
  - d. 52
- 238) The largest total exported dairy product by volume in 2009 was:
- a. Cheese and curd
  - b. **Dry whey**
  - c. Non-fat dry milk
  - d. Lactose
- 239) The country that was the largest purchaser of U.S. dairy products in 2009 was?
- a. Canada
  - b. China
  - c. **Mexico**
  - d. Japan
- 240) Five countries accounted for approximately \_\_\_\_\_% of the total U.S. dairy exports.
- a. 39
  - b. **59**
  - c. 69
  - d. 79
- 241) The largest U.S. exports of a dairy product by dollars were?
- a. **Non-fat dry milk**
  - b. Cheese and curd
  - c. Whey and whey products
  - d. Lactose
- 242) The U.S. also imports certain dairy products. The dairy products imported which accounted for the largest dollar value was?
- a. Dry whey
  - b. Milk protein concentrates
  - c. Casein and casein products
  - d. **Cheese and curd**

243) Behind the U.S., the country, which averages the largest production per cow, is \_\_\_\_\_.

- a. **Japan**
- b. Canada
- c. Australia
- d. Argentina

244) The country which imported the largest amount of U.S. ice cream and related products was:

- a. Canada
- b. Japan
- c. Russia
- d. **Mexico**

245) The minimum fat content of cheddar cheese is?

- a. 20
- b. 33
- c. 40
- d. **50**

246) The cheese that has maximum moisture of 45% and a minimum of 45% fat and is a pasta filata cheese is?

- a. Swiss
- b. Mozzarella
- c. **Provolone**
- d. Cheddar

247) Low sodium cheddar cheese contains no more than \_\_\_\_\_ milligrams of sodium per pound of finished food.

- a. 56
- b. 45
- c. **96**
- d. 105

248) Which of the following cheeses did NOT originate in Italy?

- a. **Edam**
- b. Parmesan
- c. Provolone
- d. Mozzarella

249) Monterey Jack cheese has a moisture content of 44% percent and a minimum of \_\_\_\_\_% fat.

- a. 40
- b. 45
- c. 33
- d. **50**

- 250) If the dairy ingredients to be pasteurized have a fat content of 10% or more, the specified temperature shall be increased by \_\_\_\_\_degrees F.
- 2
  - 3
  - 5**
  - 10
- 251) Which of the following cheese is a unripen variety?
- Bleu
  - Cream**
  - Brie
  - Parmesan
- 252) One serving (8oz) of milk has about \_\_\_\_\_milligrams of calcium.
- 90
  - 150
  - 200
  - 250**
- 253) Ice cream must weight a minimum \_\_\_\_\_pounds to the gallon.
- 3.5
  - 4.5**
  - 5.0
  - 5.25
- 254) The natural lipase enzyme contained in all raw milk is kept away from milk fat globules, thus preventing development of rancidity because the:
- Fat globule membrane, a protective layer, covers the fat globules**
  - The major protein, casein, ties up the lipase
  - Fat globules are too small to attract the enzyme until they are homogenized
  - Enzyme has to be activated by the heat of pasteurization
- 255) Cooperatives Working Together (CWT) is the \_\_\_\_\_program that aims to strengthen and stabilize milk prices by balancing supply and demand.
- State funded
  - Farmer-funded**
  - Federal-funded
  - None of the above
- 256) How long should Calf hutches be left empty between calves to prevent disease spread?
- 2 to 3 days
  - 3 weeks
  - 10 to 14 days**
  - 1 month

- 257) What stomach is a magnet typically used in to remove metal objects that cause Hardware disease?
- Abomasum
  - Omasum
  - Reticulum**
  - Rumen
- 258) Body condition scoring is one way to measure cow health. What is the ideal score for a milking cow?
- 1
  - 3**
  - 4
  - 5
- 259) The decision of a milk hauler to accept or reject milk at the producing farm:
- Depends on knowledge of milk quality and ability to smell off odors**
  - Must always be confirmed by tests for acidity
  - Must be made the day before pickup is scheduled
  - Both a & b
- 260) For every pound of dry matter, cows should consume how much water?
- 1 to 2 pounds
  - 4 to 5 pounds**
  - 10 to 15 pounds
  - 25 to 30 pounds
- 261) Which of the following fatty acids found in milk have been associated with health benefits in humans?
- Oleic acid
  - Conjugated Linoleum Acid**
  - Butyric Acid
  - Lactic Acid
- 262) What technology destroys 90 percent of BST found in milk?
- Pasteurization**
  - Homogenization
  - Hormonization
  - Reverse osmosis
- 263) What method of manure application is best to fully utilize nutrients, reduce risk of runoff, and lower odor complaints?
- Injecting**
  - Broadcasting
  - Surface application
  - Flood application

- 264) At refrigerated temperatures, butter will begin to lose some of its natural flavor after how long?
- Within 2 months
  - Within 6 months**
  - Within 1 year
  - Butter will not lose its natural flavor when stored properly
- 265) Why do protein and amino acids go hand in hand?
- Amino acids and proteins need to be found in a 2:1 ratio in all diets
  - Proteins are the building blocks of amino acids
  - Amino acids are the building blocks of protein**
  - Proteins link to amino acids in bone formation
- 266) When performing a CMT test, watch for color changes and gel formation. Milk from a normal quarter does which of the following?
- Forms a gelatinous mass clinging together in a strong reaction
  - Flows freely without change in viscosity**
  - Forms small clumps in a moderate reaction
  - Turns a deep purple color
- 267) New food plate guidelines recommended how many servings of dairy products per day?
- 5
  - 2
  - 4
  - 3**
- 268) What disease is caused by a worm that is taken up as larvae by cattle eating grass, penetrates the gut, and eventually matures to adult form in the respiratory tract?
- Tuberculosis
  - Heartworm
  - Trichinosis
  - Lungworm**
- 269) Which of these is a good nutritional strategy to maintain milk production in hot weather?
- Feed more grain
  - Increase protein concentration
  - Add more fat**
  - Milk slower



- 270) There are four classes of milk under federal orders and they provide for
- Classification according to the relative safety of each class
  - Payment for milk according to its quality
  - Payment for milk according to its cost of production
  - Payment for milk according to its end use**
- 271) Based on ice cream consumption figures, the second most popular flavor is
- Strawberry
  - Cookies n' cream
  - Vanilla
  - Chocolate**
- 272) Under Federal milk marketing orders Class III milk is used to make
- Ripened cheeses**
  - Cottage cheese
  - Butter and dry milks
  - Ice cream
- 273) According to a report compiled by the Institute for Food Technologists, \_\_\_\_\_ is now America's favorite at-home snack.
- Cheese
  - Yogurt**
  - Ice cream
  - Chocolate Milk
- 274) In regards to commodities, what best defines hedging?
- Taking no action
  - The act of buying and selling stock
  - The act of protecting yourself against price possibilities**
  - The act of buying and selling commodities
- 275) When it comes to fertilizing fields, what three nutrients are known as the "secondary nutrients"?
- Calcium, nitrogen, and water
  - Calcium, sulfur, and magnesium**
  - Nitrogen, phosphorus, potassium
  - Potassium, phosphorus, and zinc
- 276) A fluid milk product that contains at least 8.25% nonfat milk solids and no more than 0.5 gram of fat in a single serving of 8 fluid ounces is called
- Milk
  - Low-fat milk
  - Nonfat milk**
  - Reduced fat milk

- 277) What household cleaning agent has been found to cut odor in livestock manure by USDA-ARS scientists?
- a. Baking soda
  - b. Borax**
  - c. Dish soap
  - d. Window cleaner
- 278) The off-flavor that is seldom found except in pasteurized milk that has been stored too long is
- a. Foreign
  - b. Unclean**
  - c. High acid
  - d. Feed
- 279) According to the American Veterinary Medicine Association, what is the preferred method of dehorning cows?
- a. Caustic paste
  - b. Cauterizing veins
  - c. Gauging
  - d. Disbudding**
- 280) What field vegetable can be a cheap replacement for soybean meal and corn grain?
- a. Sugar beets
  - b. Sweet corn
  - c. Field peas**
  - d. Almonds
- 281) How many years does it take for a dairy farm to fully transition to become certified organic?
- a. 1
  - b. 3**
  - c. 5
  - d. 7
- 282) What is the largest cost on most U.S. dairy farms?
- a. Feed**
  - b. Fuel
  - c. Labor
  - d. Veterinary fees

- 283) In cows, salmonellosis infections are most common in those that have calved within
- a. 2 days
  - b. 10 days**
  - c. 20 days
  - d. 50 days
- 284) The Standard of Identity for ice cream requires that it contain a minimum of \_\_\_\_\_ percent milk fat
- a. 10**
  - b. 12
  - c. 14
  - d. 16
- 285) Which of the following is an example of value-added agriculture?
- a. A farm that markets an "Ozark brand" of cheese**
  - b. Purchasing milk from a local producer
  - c. Using a custom heifer raiser
  - d. Drinking raw milk
- 286) Farm marketing cooperatives have been in existence since the early
- a. 1800's**
  - b. 1900's
  - c. 1700's
  - d. 1920's
- 287) Federal Milk Marketing Orders affect prices consumers pay for fresh milk in grocery stores by:
- a. Adjusting them according to demand
  - b. Adjusting them according to supply
  - c. Leaving them to be determined in the marketplace**
  - d. Setting them only once yearly
- 288) What percent of exported U.S. dairy products are sold without a subsidy?
- a. 0 %
  - b. 50 %
  - c. 80 %
  - d. 95 %**
- 289) Dairy farmers receive what percent of the sale of a half-gallon of milk?
- a. 46 %
  - b. 15 %
  - c. 26 %**
  - d. 96 %

- 290) Demand for dairy products is typically the lowest in
- Spring
  - Summer**
  - Fall
  - Winter
- 291) What percent of today's youth consume the recommended amount of dairy products?
- 10%
  - 30%**
  - 50%
  - 75%
- 292) Milk that is used to make butter is classified as which class in Federal Orders?
- Class I
  - Class II
  - Class III
  - Class IV**
- 293) Milk prices on average are the lowest in
- Summer
  - Fall
  - Spring**
  - Winter
- 294) The Federal Orders of today are based on the Agricultural Agreement Act of
- 1927
  - 1947
  - 1937**
  - 1966
- 295) The practice that distributes payments for milk among the producers within a specific Federal Milk Marketing Order is called
- Pool pricing**
  - Classified pricing
  - Support pricing
  - Differential pricing
- 296) What piece of legislation made farmer cooperatives legal?
- Sherman Act
  - Capper-Volstead Act**
  - Farm Bill
  - Barkley Act

- 297) To be labeled made with organic ingredients a dairy product must contain \_\_\_\_\_ percent or more organic ingredients.
- a. 100
  - b. 90
  - c. 80
  - d. **70**
- 298) The reason that testing of milk is done in laboratories of the USDA Milk Market Orders is:
- a. To assure safety of the supply
  - b. **To provide accurate accounting for amounts of milk solids sold in the order**
  - c. To make sure food and drug law is followed
  - d. To provide data for the US Statistical Reporting Service
- 299) Milk traits, i.e. fat, protein, SNF, and etc., tend to have a heritability of about \_\_\_\_\_.
- a. Less than 10%
  - b. **20-30%**
  - c. 40-50%
  - d. More than 50%
- 300) Cows treated with BST typically show an increase of \_\_\_\_\_ in daily milk production.
- a. 2%
  - b. **10%**
  - c. 20%
  - d. 30%