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?
   a. NASS Cheese Price Survey
   b. **NASS Cheddar Cheese Price Survey**
   c. NASS Swiss Cheese Price Survey
   d. 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?
   a. Basis contract
   b. Pooling contract
   c. **Short Hedge**
   d. Speculating buyer

16) Farm water supplies must be protected from surface contamination. Water is usually tested for __________ as an indicator of possible sewage contamination.
   a. Proteolytic bacteria
   b. Lipolytic bacteria
   c. **Coliform bacteria**
   d. Psychotropic bacteria

17) Specific gravity of milk at 60°F is __________.
   a. 1.022
   b. **1.032**
   c. 1.033
   d. 1.042

18) The International Dairy Federation (IDF) mission is to promote __________.
   a. Scientific, cultural & economic progress
   b. Agricultural, technical & economic progress
   c. Technical, scientific & industrial progress
   d. **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 __________.
   a. Blend prices
   b. Regional prices
   c. **Mailbox prices**
   d. 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 ______.
   a. Promotions & research
   b. Research & testing
   c. Teaching & promotion
   d. Promotion & teaching

21) What is the most popular size container used for fluid milk?
   a. Gallon
   b. Half Gallon
   c. Quart
   d. Five quart bulk

22) Onion and garlic are responsible for the garlic/onion off-flavor in milk, and are more prevalent in pasture during _________.
   a. Fall
   b. Spring
   c. Early and late summer
   d. Early spring and late fall

23) Chemical sanitizers containing __________ are most widely used for sanitizing milking equipment.
   a. Bromine
   b. Saline
   c. Chlorine
   d. Iodine

24) Milk found in cows with a high somatic cell count would result in a decrease in __________.
   a. Butterfat
   b. Whey protein
   c. Casein
   d. Trace minerals

25) Milk is a good supplier of minerals except for _____.
   a. Magnesium-Iron-Manganese-Copper
   b. Riboflavin-Magnesium-Lactose-Manganese
   c. Phosphorus-Copper-Zinc-Calcium
   d. Potassium-Boron-Iron-Calcium

26) Adulterants of milk that are detrimental to human health are _____.
   a. Proteins
   b. Pesticides
   c. Water
   d. 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 agaiaactiae and Staphylococcus aureaus**
   b. Streptococcus uberis and Streptococcus dysgapactiae
   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.
   a. Acid degree value
   b. Cryoscope
   c. Disc assay
   d. Titratable acidity

55) Mastitis in milk ____________.
   a. Has a direct effect on cheese yield
   b. May cause increased rancidity
   c. Decreases calcium content
   d. 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?
   a. Checking milk temperature
   b. Making sure equipment has been cleaned correctly
   c. Examining milk to determine appearance
   d. 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.
   a. Rancid
   b. Malty
   c. Acidic
   d. Fruity

58) The four primary taste sensations are ____________________.
   a. Bitter, metallic, sour, sweet
   b. Bitter, salt, sour, sweet
   c. Metallic, salt, sour, sweet
   d. Burnt, bitter, salt, sour

59) Lactose is the principal ________ in milk.
   a. Fat
   b. Protein
   c. Carbohydrate
   d. Mineral

60) The most effective and economical means of reducing the exposure of cows to mastitis causing microorganisms is to _________.
   a. Isolate animals with clinical mastitis
   b. Disinfect or sterilize milking machine inflation’s between cows
   c. Wear rubber or plastic gloves during milking and disinfect the gloves between cows
   d. 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.
   a. 25  
   b. 45  
   c. 60  
   d. 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
   a. High acid  
   b. Bitter  
   c. Oxidized  
   d. Rancid (lipolyzed)

63) Which group of flavors cannot be detected by odor?
   a. Bitter, salty  
   b. High acid, rancid  
   c. Feed, garlic/onion  
   d. Metallic/oxidized, malty

64) Milk used to make ice cream would be priced in what Federal Order class?
   a. Class I  
   b. Class II  
   c. Class III  
   d. Class IV

65) _________ is the time after processing during which a dairy product normally remains suitable for human consumption.
   a. Code date  
   b. Product life  
   c. Package date  
   d. Shelf date

66) The off flavor most likely to be found in milk that has not been cooled properly is:
   a. Sour  
   b. Rancid  
   c. Oxidized  
   d. Bitter

67) The Babcock test is a rapid, simple and accurate test for:
   a. Water in milk  
   b. Titratable acidity  
   c. Fat content  
   d. 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)?
   a. Clenbuterol
   b. Penicillin
   c. Tetracycline
   d. Ivomec

76) The fat in one serving of whole milk (8 ounces) provides ________ calories.
    a. 85
    b. 90
    c. 95
    d. 100

77) The most prevalent off flavor of fluid milk is ________.
    a. Malty
    b. Oxidized
    c. Flat
    d. 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.
    a. 200,000
    b. 150,000
    c. 100,000
    d. 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.
    a. Temperature and length
    b. Time and temperature
    c. Temperature and time
    d. Time and length

80) The major reason milk from cows treated with antibiotics must be withheld from the milk supply is because ________.
    a. A large proportion of the human population is sensitive to antibiotics
    b. Antibiotics increase the somatic cell count of milk
    c. Antibiotics cause an off-flavor in milk
    d. 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.
   a. 7
   b. 12
   c. 14
   d. 19

109) Summer milk has been estimated to contain 1.6 times as much vitamin ____ as winter milk.
   a. A
   b. B
   c. C
   d. D

110) The milk becomes the property of the buyer once….
   a. The transport truck reaches the plant
   b. It is loaded into the transport truck on the farm
   c. The transport truck leaves the farm
   d. It is unloaded into the processor’s bulk tanks

111) Cows with _____ have a higher incidence of mastitis because physical injury is more likely.
   a. Sickled hocks
   b. Horns
   c. Lower foot angles
   d. **Pendulous udders**

112) Which of the following is untrue concerning the federal milk marketing orders?
   a. They are legal instruments
   b. It is a uniform system of classified pricing
   c. Producers are not guaranteed a market
   d. **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.
   a. Classified
   b. Average
   c. Parity
   d. **Blend**

114) Under federal orders, dairy farmers receive their milk checks______.
   a. **Once or twice monthly**
   b. Weekly
   c. Bi-monthly
   d. 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.
   a. 48 – 72
   b. 30 – 60
   c. 48 – 108
   d. 72 – 96

122) Rules developed by the _____ are designed to protect the health and welfare of consumers.
   a. United States Department of Agriculture (USDA)
   b. Protein and Lactose Organization (PLO)
   c. Future Farmers of America (FFA)
   d. Food and Drug Administration (FDA)

123) The standard plate count (SPC) estimates the total numbers of ____ microorganisms.
   a. Mild
   b. Yeast
   c. Anaerobic
   d. Aerobic

124) The predominant bacteria of milk that produces lactic acid, which is responsible for the sour taste of milk are the:
   a. Streptococci
   b. Psychrophilic
   c. Coliform
   d. 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.
   a. 3.0
   b. 3.2
   c. 3.5
   d. 3.7

126) The United States government purchases surplus ____ from the commercial market under the dairy price support program.
   a. Fluid milk products, butter, cheese
   b. Cheese, nonfat dry milk, butter
   c. Butter, evaporated milk, ice cream
   d. 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.
   a. First
   b. Second
   c. Third
   d. Fourth

134) From the mid 1950’s until 2009, the size of the U.S. dairy herd has:
   a. Decreased by 50%
   b. Remained static
   c. Increased by 50%
   d. More than doubled mirroring the population growth

135) From the mid 1950’s until 2009, individual production per cow has:
   a. Remained static
   b. Increased by 50%
   c. Increased by 100%
   d. Increased by 400%

136) The first milk produced after parturition is called:
   a. Colostrum
   b. Celestial
   c. Serial
   d. Coliseum

137) Transitional milk is the label given to the milk produced in:
   a. One retail region and moved to another retail region for processing
   b. From the Colostrum stage to 11th milking which can not be legally marketed for human consumption
   c. From the truck to the holding silos, not yet in the production cycle
   d. 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.
   a. 1
   b. 11
   c. 22
   d. 33

139) It requires _______ pound(s) of milk to produce one gallon of gourmet ice cream.
   a. 8
   b. 12
   c. 16
   d. 24
140) To prevent milk fat from separating itself from the fluid portion of the milk is:
   a. Homogenized
   b. Pasteurized
   c. Sterilized
   d. Thermalized

141) Fat globules in raw milk average about ________________ in diameter:
   a. 1/25,000 of an inch, more or less 1 micron
   b. 6/25,000 of an inch, more or less 6 microns
   c. 1/2,500 of an inch, more or less 100 microns
   d. 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:
   a. 30% of the water
   b. 60% of the water
   c. 90% of the water
   d. All of the fat

143) Condensed milk on the grocery shelf may have ________ added.
   a. Salt
   b. Minerals
   c. Sugar
   d. Cream

144) The major difference between Evaporated and Condensed milk is:
   a. Evaporated milk has less water than condensed milk
   b. Evaporated milk can be stored non-refrigerated, while condensed milk requires refrigeration
   c. Condensed milk has a lower fat content than evaporated milk
   d. Condensed milk comes in smaller size containers than evaporated milk

145) Dry milk must have less than ________% moisture by weight.
   a. 5%
   b. 10%
   c. 15%
   d. 25%

146) Dry milk can be stored for long periods of time:
   a. In refrigerated vaults
   b. At temperatures above 150 degrees
   c. In an open container in the cabinet
   d. 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. .5%, 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) from 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:
   a. Peanut butter
   b. Honey
   c. Fruits
   d. Vegetable oil

168) By FDA definition of an imitation product, which of the following is NOT true:
   a. Taste like the real product it represents
   b. **Has the same nutritional value as the real product it represents**
   c. Looks like the real product it represents
   d. Imitation products are not regulated by the FDA

169) A substitute product by FDA definition meets all of the following statements except:
   a. Taste like the real product it represents
   b. Has the same nutritional value as the real product it replaces
   c. Looks like the real product it represents
   d. **Imitation products are not regulated by the 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.
   a. Produced from U.S. milk
   b. Meets federal and state standards
   c. Imitation or substitute foods
   d. **Produced from NON-organic sources**

171) Osteoporosis may be reduced by consuming adequate quantities of milk and/or milk products. Osteoporosis is the:
   a. Inflammation of the skin cells causing hair loss and scaling of the skin
   b. Deterioration of the soft tissue in the retina, leading to blurry vision and poor eye sight
   c. **Loss of bone mass due to decrease in the bone matrix and minerals**
   d. 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:
   a. 24-28 hours
   b. 10-15 days
   c. **Several weeks**
   d. 6 months

173) Milk sold through commercial outlets is certified to be from herds free of:
   a. B.S.T.
   b. Displaced Abomasums
   c. Broken Udder Suspensory Ligaments
   d. **Tuberculosis**
174) Humans may contract ______________ from using raw cows’ or goats’ milk, should the animals have brucellosis.
   a. Undulant fever
   b. Mumps
   c. Whooping cough
   d. Night blindness

175) Milk is produced from female’s mammary glands. These mammary glands are examples of a:
   a. Adrenal gland
   b. Excretory gland
   c. Absorbatory gland
   d. Exocrine gland

176) The secretory tissue within the mammary gland is a grapelike structure called:
   a. Alveoli
   b. Clitoris
   c. Glans cistern
   d. Annular ring

177) The California Mastitis Test (CMT) asks that you used only ___________ milk.
   a. Colostrum
   b. Milk after dry-off
   c. The first stream during milking
   d. The 2nd stream during milking

178) How many cc's of milk is required for the CMT?
   a. 6 cc
   b. 4 cc
   c. 2 cc
   d. ½ cc

179) The CMT should be read within _____________.
   a. 10 sec
   b. 20 sec
   c. 30 sec
   d. 40 sec

180) What is the healthiest range for somatic cell counts?
   a. 400,000-1,200,000
   b. 200,000-400,000
   c. 0-200,000
   d. 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 least ________ 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.
   a. Cheddar
   b. Brie
   c. Mozzarella
   d. Provolone

223) Which one of the following "selected dairy products" has the greatest production in the U.S.?
   a. Non-fat dry milk
   b. Butter
   c. Yogurt
   d. Evaporated milk

224) The pound per capita of reduced and low-fat milk was ________ pounds/year.
   a. 32
   b. 45
   c. 50
   d. 85

225) The largest increase per capita in all dairy products in 2009 was:
   a. Cheese
   b. Yogurt
   c. Low-fat milk
   d. Ice cream

226) According to USDA’s economic research service, total per capita of all fluid products was approximately __________ pounds.
   a. 110
   b. 137
   c. 163
   d. 177

227) Approximately ______% of the frozen dessert market was ice cream. (Hard and soft and low-fat/non-fat)
   a. 56
   b. 60.5
   c. 70.7
   d. 86.7

228) More than _____% of American household purchase cheese; including cream cheese.
   a. 69
   b. 78
   c. 86
   d. 96
229) Cheese consumption in the U.S. was approximately ______ pounds per capita.
   a. 32
   b. 36
   c. 45
   d. 51

230) The two most popular cheese varieties in the U.S. are?
   a. Cheddar and Monterey Jack
   b. Cheddar and Colby
   c. Cheddar and Mozzarella
   d. Cheddar and Swiss

231) The Italian cheese with the second largest per capita consumption was?
   a. Parmesan
   b. Provolone
   c. Romano
   d. Ricotta

232) The largest supermarket sales of cheese by type was:
   a. Cheddar
   b. Mozzarella
   c. Processed American
   d. Colby Jack

233) In 2009, the annual farm milk price was about $__________ per hundredweight, down $5.60 per hundredweight from 2008.
   a. 10.80
   b. 12.80
   c. 14.10
   d. 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.
   a. 1.78
   b. 1.9
   c. 2.69
   d. 2.89

235) The minimum price for all four classes of milk from the farm in 2009 compared to 2008:
   a. Increases slightly
   b. Increased a large amount
   c. Remained the same
   d. 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.
   a. 2
   b. 3
   c. 5
   d. 10

251) Which of the following cheese is a unripen variety?
   a. Bleu
   b. **Cream**
   c. Brie
   d. Parmesan

252) One serving (8oz) of milk has about ______milligrams of calcium.
   a. 90
   b. 150
   c. 200
   d. **250**

253) Ice cream must weight a minimum ______pounds to the gallon.
   a. 3.5
   b. **4.5**
   c. 5.0
   d. 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:
   a. **Fat globule membrane, a protective layer, covers the fat globules**
   b. The major protein, casein, ties up the lipase
   c. Fat globules are too small to attract the enzyme until they are homogenized
   d. 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.
   a. State funded
   b. **Farmer-funded**
   c. Federal-funded
   d. None of the above

256) How long should Calf hutches be left empty between calves to prevent disease spread?
   a. 2 to 3 days
   b. 3 weeks
   c. **10 to 14 days**
   d. 1 month
257) What stomach is a magnet typically used in to remove metal objects that cause Hardware disease?
   a. Abomasum
   b. Omasum
   c. Reticulum
   d. Rumen

258) Body condition scoring is one way to measure cow health. What is the ideal score for a milking cow?
   a. 1
   b. 3
   c. 4
   d. 5

259) The decision of a milk hauler to accept or reject milk at the producing farm:
   a. Depends on knowledge of milk quality and ability to smell off odors
   b. Must always be confirmed by tests for acidity
   c. Must be made the day before pickup is scheduled
   d. Both a & b

260) For every pound of dry matter, cows should consume how much water?
   a. 1 to 2 pounds
   b. 4 to 5 pounds
   c. 10 to 15 pounds
   d. 25 to 30 pounds

261) Which of the following fatty acids found in milk have been associated with health benefits in humans?
   a. Oleic acid
   b. Conjugated Linoleum Acid
   c. Butyric Acid
   d. Lactic Acid

262) What technology destroys 90 percent of BST found in milk?
   a. Pasteurization
   b. Homogenization
   c. Hormonization
   d. Reverse osmosis

263) What method of manure application is best to fully utilize nutrients, reduce risk of runoff, and lower odor complaints?
   a. Injecting
   b. Broadcasting
   c. Surface application
   d. Flood application
264) At refrigerated temperatures, butter will begin to lose some of its natural flavor after how long?
   a. Within 2 months
   b. **Within 6 months**
   c. Within 1 year
   d. Butter will not lose its natural flavor when stored properly

265) Why do protein and amino acids go hand in hand?
   a. Amino acids and proteins need to be found in a 2:1 ratio in all diets
   b. Proteins are the building blocks of amino acids
   c. **Amino acids are the building blocks of protein**
   d. 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?
   a. Forms a gelatinous mass clinging together in a strong reaction
   b. **Flows freely without change in viscosity**
   c. Forms small clumps in a moderate reaction
   d. Turns a deep purple color

267) New food plate guidelines recommended how many servings of dairy products per day?
   a. 5
   b. 2
   c. 4
   d. **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?
   a. Tuberculosis
   b. Heartworm
   c. Trichinosis
   d. **Lungworm**

269) Which of these is a good nutritional strategy to maintain milk production in hot weather?
   a. Feed more grain
   b. Increase protein concentration
   c. **Add more fat**
   d. Milk slower
270) There are four classes of milk under federal orders and they provide for
   a. Classification according to the relative safety of each class
   b. Payment for milk according to its quality
   c. Payment for milk according to its cost of production
   d. Payment for milk according to its end use

271) Based on ice cream consumption figures, the second most popular flavor is
   a. Strawberry
   b. Cookies n’ cream
   c. Vanilla
   d. Chocolate

272) Under Federal milk marketing orders Class III milk is used to make
   a. Ripened cheeses
   b. Cottage cheese
   c. Butter and dry milks
   d. Ice cream

273) According to a report compiled by the Institute for Food Technologists,_________ is now America’s favorite at-home snack.
   a. Cheese
   b. Yogurt
   c. Ice cream
   d. Chocolate Milk

274) In regards to commodities, what best defines hedging?
   a. Taking no action
   b. The act of buying and selling stock
   c. The act of protecting yourself against price possibilities
   d. The act of buying and selling commodities

275) When it comes to fertilizing fields, what three nutrients are known as the
   “secondary nutrients”?
   a. Calcium, nitrogen, and water
   b. Calcium, sulfur, and magnesium
   c. Nitrogen, phosphorus, potassium
   d. 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
   a. Milk
   b. Low-fat milk
   c. Nonfat milk
   d. 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
   a. Spring
   b. **Summer**
   c. Fall
   d. Winter

291) What percent of today’s youth consume the recommended amount of dairy products?
   a. 10%
   b. **30%**
   c. 50%
   d. 75%

292) Milk that is used to make butter is classified as which class in Federal Orders?
   a. Class I
   b. Class II
   c. Class III
   **d. Class IV**

293) Milk prices on average are the lowest in
   a. Summer
   b. Fall
   c. **Spring**
   d. Winter

294) The Federal Orders of today are based on the Agricultural Agreement Act of
   a. 1927
   b. 1947
   c. **1937**
   d. 1966

295) The practice that distributes payments for milk among the producers within a specific Federal Milk Marketing Order is called
   a. **Pool pricing**
   b. Classified pricing
   c. Support pricing
   d. Differential pricing

296) What piece of legislation made farmer cooperatives legal?
   a. Sherman Act
   b. **Capper-Volstead Act**
   c. Farm Bill
   d. 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%