

PA FFA Milk Quality and Products CDE Test Question Bank

- "Clinical and epidemiological studies have established a direct casual link between gastrointestinal disease and the consumption of raw milk." This quotation from the Cheese Reporter (April 2003) is from a position statement issued by the:
 - a. US Department of Agriculture
 - b. US Food and Drug Administration
 - c. International Dairy Federation
 - d. National Milk Producers Federation
 - e. International Dairy Foods Association

- Under which of the following weather conditions would you expect to observe the greatest decrease in milk yield per cow and in percentage of fat and protein in that milk?
 - a. cold and dry
 - b. hot and humid
 - c. cool and humid
 - d. cool and rainy
 - e. warm and dry

- Milk supplies more than 70% which vital component of the American diet?
 - a. vitamin C
 - b. lactic acid
 - c. iron
 - d. calcium

- U. S. cheese production in 2002 reached a record high level of ?
 - a. 4.88 billion pounds, up 8.3 %
 - b. 2.48 billion pounds, up 1.3 %
 - c. 8.44 billion pounds, up 3.8 %
 - d. 5.65 billion pounds, up 3.8 %

- The grade A Pasteurized Milk Ordinance (PMO) contains the requirements for the production of Grade A raw milk for pasteurization and is recommended by the
 - a. U.S. Department of Agriculture
 - b. Food and Dug Administration
 - c. U.S. Department of Energy
 - d. Environmental Protection Agency

- Grade A milk shall be cooled to _____ or less withing 2 hours of milking.
 - a. 0 degree Celsius (32 degree F)
 - b. 7 degree Celsius (45 degree F)
 - c. 10 degree Celsius (50 degree F)
 - d. 15 degree Celsius (60 degree F)

- The greatest amount of regular ice cream produced in the U.S. is in the _____ section.
 - a. North Atlantic
 - b. East North central
 - c. South Central
 - d. West

- The top two states in milk production are?
 - a. New York and Wisconsin
 - b. Wisconsin and Minnesota
 - c. Minnesota and California
 - d. California and Wisconsin

- The 4 primary taste sensations are
 - a. bitter, sour, sweet, and salty
 - b. fragrant, salty, goaty and acid
 - c. sweet, fragrant, burnt and salty
 - d. sweet, goaty, bitter and sour

- The salts _____ and _____ constitute what is commonly known as water hardness.
 - a. manganese and sodium
 - b. magnesium and calcium
 - c. iron and sulfur
 - d. phosphorus and potassium

- _____ is the process of treating surfaces with physical or chemical agents that kill most microorganisms present
 - a. Sterilization
 - b. Pasteurization
 - c. Strangulation
 - d. Sanitization

- Milk with a high somatic cell count (SCC) is more likely to become _____ than is milk with a low SCC.
 - a. rancid
 - b. cooked
 - c. feed
 - d. garlic/onion

- Bulk tanks of over 1,000 gallons capacity require at least _____ minutes of agitation to yield a representative sample for an accurate milk fat test.
 - a. 5
 - b. 10
 - c. 20
 - d. 30

- Failure to cool milk quickly after milking is likely to result in _____ flavor.
 - a. bitter
 - b. oxidized
 - c. rancid
 - d. high acid

- Milking machine inflations and other rubber parts must be cleaned adequately with alkaline detergent because they readily absorb _____, resulting in the loss of physical qualities for good milking.
 - a. moisture
 - b. fat
 - c. protein
 - d. minerals

- The term _____ means that milk or the milk product has been treated to insure breakup of the fat globules to such an extent that, after 48 hours of quiescent storage at 7 degree Celsius (45 degree F), no visible cream separation occurs.
 - a. pasteurization
 - b. homogenized
 - c. sterilized
 - d. clarified

- High bacteria counts in raw milk can be caused by
 - a. cows with mastitis
 - b. poor cooling systems
 - c. unclean equipment
 - d. all of the above

- In the Babcock test _____ acid is the chemical used to breakdown the protein and release the milkfat in the sample.
 - a. acetic
 - b. sulfuric
 - c. butyric
 - d. caproic

- The material that accumulates on the filter pads during the sediment test of milk is
 - a. insoluble extraneous matter
 - b. soluble and insoluble extraneous matter
 - c. somatic cells
 - d. bacteria

- Although milk from the cow is processed, it is not an engineered or fabricated food and contains about _____ percent solids.
 - a. 3.5
 - b. 13
 - c. 76
 - d. 87

- Casein, a protein found only in milk, contains all the essential amino acids. It accounts for about _____ percent of the total proteins in milk and is used as a standard for evaluating protein in other foods.
 - a. 60
 - b. 70
 - c. 80
 - d. 90

- Removing cows from green grass or silage four hours prior to milking , can minimize or eliminate this flavor defect in milk.
 - a. flat
 - b. feed
 - c. bitter
 - d. high acid

- When tasting this flavor you can recognize it by the “papery” or the cardboard sensation initially and tallowy odor is more advanced stages.
 - a. feed
 - b. oxidized
 - c. cooked
 - d. salty

- Purple color that result from CMT test is generally more intense in the samples from infected quarters, because such samples have a _____ pH.
 - a. alkaline
 - b. acid
 - c. neutral
 - d. no correct answer listed above

- Dairy cows need _____ day dry periods for rejuvenation of secretory tissue and restoration of body condition.
 - a. 30
 - b. 60
 - c. 90
 - d. 120

- To make one gallon of ice cream it requires approximately _____ pounds of whole milk.
 - a. 21.2
 - b. 13.5
 - c. 12
 - d. 10

- Mixture of milk and cream containing not less than 10.5 percent milkfat, but less than 18 percent milkfat, is definition of.
 - a. light whipping cream
 - b. light cream
 - c. half-and-half
 - d. heavy cream

- Most recent data shows the most fluid milk was sold in what type of container?
 - a. Paper
 - b. Plastic
 - c. Glass
 - d. Metal (tin) cans

- Milk covered by Federal orders is often known as _____ or milk eligible for fluid use.
 - a. “Grade A”
 - b. Manufacturing grade
 - c. All milk in the market regardless of grade
 - d. Both manufacturing grade and “Grade A” milk in all markets

- A Federal Milk Marketing order is a regulation issued by the Secretary of _____, which places certain requirements on the first buyers or handlers or milk from dairy farmers.
 - a. Health
 - b. Food & Drug Administration
 - c. Commerce
 - d. Agriculture

- Federal milk marketing orders
 - a. Guarantee the producer a market for milk
 - b. Establish certain minimum farm milk prices
 - c. Establish maximum prices consumers can be charged for milk
 - d. Guarantee all milk producers an adequate income

- Federal orders are used to make buying and selling of fluid milk an orderly process upon which _____ can depend.
 - a. Milk dealers
 - b. Dairy farmers
 - c. Consumers
 - d. A, B, and C

- Class II manufactured dairy products are used in soft manufactured products such as
 - a. Butter and cheddar cheese
 - b. Cream products, cottage cheese, and ice cream
 - c. Fluid whole milk, fluid lowfat and skim milk, and flavored milk
 - d. A, B, and C

- Multiple component prices, used in milk orders, are adjusted on butterfat content and _____ in the milk.
 - a. Nonfat solids
 - b. Protein
 - c. Somatic cell count
 - d. A, B, and C

- Milk handlers are assessed in accordance with the quantity of milk they receive or handle. Generally, it ranges from _____ cents per hundredweight of the milk received by the handlers from producers.
 - a. 1-2
 - b. 2-5
 - c. 5-7
 - d. 7-9

- Over the past several years the US dairy Industry has watched carefully as representatives from around the world have developed the Uruguay Round Agreement and planned the Doha Round. These trade agreements that portend to promote “free” global trade are done within the
 - a. World Trade Organization
 - b. International Dairy Federation
 - c. International Dairy Foods Association
 - d. United Nations Security Council

- Low prices for milk in the past several months have caused producer groups to look for causes. Among causes related to international trade has been the increased importation of
 - a. Ice cream
 - b. Blue type cheeses
 - c. Milk protein concentrates
 - d. Evaporated milk

- The device or process used by the USDA to adjust the amount of butter and nonfat dry milk (NDM) purchased in its prices support program is called the “tilt”. If the Commodity Credit Corporation, the agency responsible for buying up surplus butter, cheese and NDM, finds it has large stocks of butter and small stocks of NDM, it should “tilt” prices to
 - a. Pay more for butter
 - b. Pay less for NDM
 - c. Buy more cheese
 - d. Both A and B

- The National Milk Producer’s Federation organized in 2000 a program called Cooperatives Working Together. The program calls for assessment of 5-cents per hundredweight of milk sold by producers of at least 70% of the milk produced in the US. The purpose(s) of the program is/are
 - a. Reduce milk supplies
 - b. Boost sales of milk
 - c. Stabilize milk prices
 - d. All of the above

- Three states from a single region of the nation now produce over one-fourth of the US milk supply. These states are
 - a. New York, Pennsylvania, Maryland
 - b. Wisconsin, Iowa, Illinois
 - c. Texas, New Mexico, Oklahoma
 - d. California, Oregon, Washington

- In April of 2003, the Cheese Reporter revealed that the US Department of Agriculture was providing a surplus dairy product for use in animal feed for “livestock producers in areas hardest hit by the continuing drought.” That dairy product is
 - a. Nonfat dry milk
 - b. Undergrade barrel cheese
 - c. Butter
 - d. Whey protein concentrate

- One of the mechanisms used by 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

- The primary factors influencing per capita cheese demand does not include
 - a. Per capita disposable income
 - b. The percentage of the population between 45 – 60 years of age
 - c. The percentage of the population that is Asian / other
 - d. Retail cheese price and per capita expenditures on food away from home (FAFH)

- In January 2003, the USDA's Commodity Credit Corporation (CCC) purchased 380,835 pounds of butter, the first butter purchased under the dairy price support program since
 - a. 2000
 - b. 1999
 - c. 1995
 - d. 1994

- In January 2003, dairy and other food industry organizations testified against a proposed free trade agreement (FTA) with
 - a. South America
 - b. Europe
 - c. Asia
 - d. Australia

- Producers in each of the 11 federal milk marketing orders approved changes to
 - a. Class III and IV pricing formulas
 - b. Class I and II pricing formulas
 - c. Class I and III pricing formulas
 - d. Class II and IV pricing formulas

- USDA's Animal and Plant Health Inspection Service (APHIS) published a proposed rule that would establish specific processing requirements for certain cheeses, butter, and butteroil imported from regions in which
 - a. Monkey pox exists
 - b. Small pox exists
 - c. Anthrax exists
 - d. Foot-and-Mouth Disease exists

- According to figures released by USDA's Foreign Agricultural Service (FAS), both the value of US dairy imports and the value of US dairy exports declined in 2002, but the US dairy trade deficit increased because
 - a. The drop in import value exceeded the drop in export value
 - b. The values of imports and exports remained the same
 - c. The drop in export value exceeded the drop in the import value
 - d. The value of imports and exports rose

- For what is believed to be the first time, DFA's program priorities include a section devoted to "Dairy Safety". These priorities, all of which are on FDA's "B" list (issues the agency plans to make progress on but which it may not complete before the end of the fiscal year), include all of the following except
 - a. Evaluate the science of raw milk cheeses (60-day aging), and evaluate the science and determine the need to change existing Pasteurized Milk Ordinance (PMO) guidance on vitamins A and D supplementation of Grade A dairy products
 - b. In collaboration with the Office of Regulatory Affairs and the Center of Veterinary Medicine, facilitate the implementation of the new National Drug Residue Milk Compliance Program
 - c. Issue updated Federal Import Milk Act Compliance Policy Guide
 - d. Continue to work toward completion of equivalence determinations with Mexico and the European Union (EU)
 - e. Develop guidance for the pasteurization of section 403(h)(3) of the 2002 farm bill

- The percent of U.S. milk production consumed through schools _____ the past 8 years.
 - a. Decreased
 - b. Increased
 - c. Leveled off
 - d. Resulted in no change

- The utilization of U.S. supply of milk fat in the production of butter over the past 25 years has _____.
 - a. Increased
 - b. Decreased
 - c. Stayed the same
 - d. Varied inversely to milk production

- Current predictions are the Basic Formula Price (BFP) to average about \$12.50 for the year – down about _____ from 1998.
 - a. \$1.65
 - b. \$1.70
 - c. \$1.75
 - d. \$1.80

- The milk – bone illness outbreak that occurred in California in 1985 via the consumption of a fresh, unripened Mexican type cheese was caused by microorganisms _____.
 - a. Staphylococcus aureas
 - b. Listeria monocytogenes
 - c. Streptococcus lactis
 - d. Samonella typhimiruim

- The greatest damage to the cow caused by mechanical milking is due to _____.
 - a. Milking to fast
 - b. Leaving the machine on too long
 - c. Milking to slow
 - d. Using too low vacuum

- High temperature short time pasteurization (HTST) requires that every particle of milk is heated to _____ for _____ seconds or its equivalent.
 - a. 161 degrees F for 15 seconds
 - b. 101 degrees F for 25 seconds
 - c. 121 degrees F for 20 seconds
 - d. 131 degrees F for 10 seconds

- If cows are not fed enough chopped forage ; problems may arise in the amount of _____ in their milk.
 - a. Somatic cells
 - b. Protein
 - c. Lactose
 - d. Fat

- Corn that is drought stressed is much more likely to be contaminated with molds , especially *Aspergillus*'s and the aflatoxin it produces. The best way to prevent growth of aflatoxin is to _____.
 - a. Harvest the corn with a higher moisture, 32-34%
 - b. Store the corn wet, do not dry down
 - c. Dry the corn down as soon as possible
 - d. Process as silage

- Which of the following will best control contagious mastitis?
 - a. Pre - milking teat dip
 - b. Barrier type teat milk
 - c. Antibiotic teat dip
 - d. Germicidal teat dip

- The Standard Plate Count (SPC) has prescribed incubation time of _____ hours at _____ degrees C.
 - a. 24 hours @ 32 degrees C
 - b. 48 hours @ 45 degrees C
 - c. 48 hours @ 32 degrees C
 - d. 12 hours @ 45 degrees C

- The three adulterants of milk that are most important to human health are :
 - a. Water, sediment and bacteria
 - b. Antibiotics, pesticides, and radionuclides
 - c. Artificial colors, flavors and preservatives
 - d. Slat, copper and Magnesium

- Milk provides _____ 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

- Which one of the following is not a cause of mastitis ?
 - a. Staphylococcus dysgalactiae
 - b. Staphylococcus aureus
 - c. Streptococcus uberis
 - d. Streptococcus agalactiae

- Which of the following is not a cause of coliform mastitis?
 - a. Cracked or split inflations
 - b. Milking too soon after calving
 - c. Excess water used in washing udders
 - d. Slightly damp, warm bedding

- Although cheese has taken an increasing percent of U.S milk supplies in recent years , _____ still uses (s) the largest share of the U.S. milk supply.
 - a. Frozen dairy products
 - b. Fluid milk and cream
 - c. Evaporated and condensed milk

- 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%

- Which of the following directly influence(s) the total supply of milk?
 - a. Prices paid milk producers
 - b. Expected future prices
 - c. Present and expected costs of milk production
 - d. All of the above

- The first compulsory pasteurization law (Chicago) applying to all milk except that from tuberculin tested cows was adopted in _____.
 - a. 1898
 - b. 1908
 - c. 1918
 - d. 1928

- _____ occurs in calves of ages 10 days to 15 months but seldom in newborns.
 - a. Bentonite
 - b. Mycotoxins
 - c. Salmonellosis
 - d. Spectra

- Specific gravity of milk at 60⁰F is _____.
 - a. 1.022
 - b. 1.032
 - c. 1.042
 - d. 1.052

- Powdered cream requires _____ pounds of whole milk.
 - a. 7.25 lbs
 - b. 7.4 lbs
 - c. 13.5 lbs
 - d. 14.25 lbs

- The international dairy federation (IDF) mission is to promote _____.
 - a. Scientific, cultural and economic progress
 - b. Agricultural, technical and economic progress
 - c. Technical, scientific and industrial progress
 - d. Scientific, technical and economic progress

- The IDF recognizes _____ National Committees (NC) per country to represent all domestic dairy interstate.
 - a. 1
 - b. 3
 - c. 5
 - d. 7

- The US Dairy Export Council (USDEC) was created by _____.
 - a. USDA
 - b. Babcock Institute
 - c. USDA FAS
 - d. Dairy Management INC.

- The objectives of the Babcock Institute do not include _____.
 - a. Strengthening dairy industries of the world
 - b. Enhancing international commercial opportunities for the US Dairy industry
 - c. Enhancing scientific opportunities for the European Dairy Industry
 - d. Draw on global perspectives to build insight into the strategic planning of the US Dairy Industry

- This product is eligible for the Dairy Export Incentive Program (DEIP)
 - a. Fluid Milk
 - b. Butter
 - c. Ice Cream
 - d. Sour Cream

- To produce 1 pound of cheese it takes about _____ pounds of whole milk of the average milk fat test.
 - a. 5
 - b. 10
 - c. 15
 - d. 20

- Consumer demand for milk and dairy products depends largely on:
 - a. Retail prices of fluid milk and dairy products
 - b. Prices of substitute products
 - c. Consumer incomes
 - d. All of the above

- The sediment test detects _____ in milk
 - a. Antibiotics
 - b. Insoluble foreign matter
 - c. Mastitis
 - d. All of the above

- Which of the following off flavor of milk is most likely caused by bacteria growth?
 - a. Feed
 - b. Onion / garlic
 - c. Oxidized
 - d. High acid

- The temperature of cooled milk on the farm is usually kept at or below _____ °F.
 - a. 35
 - b. 40
 - c. 45
 - d. 50

- In most states, milk is defined as having _____ percent of fat.
 - a. 3.0
 - b. 3.25
 - c. 3.5
 - d. 3.75

- Milk that has had the fat removed is known as:
 - a. Curds
 - b. Whey
 - c. Skim
 - d. Coagulate

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

- Failure to sanitize milking equipment immediately before use may result in a _____.
 - a. High bacteria count
 - b. High freezing point
 - c. High somatic cell count
 - d. Foreign flavor

- If one wants to remove water spots or milkstone from equipment, use:
 - a. Iodopher
 - b. Soap
 - c. Chlorinated alkaline detergent
 - d. Acid cleaner

- Approximately half of the stone accumulation on dairy equipment comes from milk solids while the other half comes from _____.
 - a. Water
 - b. Sanitizers
 - c. Cleaners
 - d. Caustic

- A feed flavor in milk is transferred via the blood from _____.
 - a. The mouth to the mammary gland
 - b. The rumen to the teats
 - c. The lungs to the mammary gland
 - d. All of the above

- Cracked and blistered rubber parts of the milking machines _____.
 - a. Cause immediate oxidation of milk
 - b. Trap milk solids and bacteria
 - c. Are unimportant if only visible on the outside of the milker parts
 - d. Both a and B

- In about $\frac{3}{4}$ of the States, over _____ percent of Grade "A" milk is shipped to plants regulated under Federal orders.
 - a. 90
 - b. 80
 - c. 70
 - d. 60

- Milk controlled under Federal orders must qualify as _____.
 - a. Grade "A"
 - b. Class I
 - c. Free of adulterating chemicals
 - d. All grades and classes

- Which of the following cheeses is unripened?
 - a. Cream
 - b. Cheddar
 - c. Mozzarella
 - d. Edam

- Where on the tongue does a person taste sour?
 - a. Front
 - b. Side
 - c. Front and Side
 - d. Back

- Where on the tongue does one taste sweet?
 - a. Front
 - b. Side
 - c. Front and Side
 - d. Back

- When scoring sediment disks, which is correct?
 - a. 8 is cleaner than 6
 - b. 0 is cleaner than 2
 - c. 2 is cleaner than 0
 - d. 6 is cleaner than 2

- The freezing point test conducted in a _____ is used to test for the addition of water to milk.
 - a. Dynameter
 - b. Cyroscope
 - c. Odometer
 - d. Cynthoscope

- The dairy product category that requires the highest amount of raw milk for the US supply is:
 - a. Cheese
 - b. Butter
 - c. Cream and specialty items
 - d. Yogurt

- Dairy products provide about _____ percent of the calcium in the diet of the average consumer in the United States.
 - a. 35
 - b. 55
 - c. 75
 - d. 95

- The largest share of fluid milk sales is currently purchased by consumers in _____ size containers.
 - a. Pint
 - b. Quart
 - c. Half – gallon
 - d. Gallon

- A major function of Federal Milk marketing orders are to provide:
 - a. Mandatory government control
 - b. Consumer health protection
 - c. A more stable and orderly market
 - d. Maximum milk prices to producers

- Milk is an excellent source of several vitamins, e.g., dairy products provide 37% of our daily requirements for _____, a B vitamin.
 - a. Riboflavin
 - b. Niacin
 - c. Thiamine
 - d. Carotene

- What is the temperature range psychotropic bacteria thrive in?
 - a. 20 to 30 °F
 - b. 35 to 50 °F
 - c. 70 to 100 °F
 - d. 110 to 145 °F

- Dairy herds with high somatic cell counts (SCC) are more likely to produce a _____ flavor in the milk.
 - a. Rancid
 - b. Cooked
 - c. Feed
 - d. Garlic / Onion

- To reduce off flavors in milk, strong flavored feed should be fed to cows _____.
 - a. Just before milking
 - b. Just after milking
 - c. Early morning
 - d. Late evening

- Milk is made in the _____ in the udder.
 - a. Pituitary gland
 - b. Alveoli cells
 - c. Blood stream
 - d. Gland cistern

- The average age for a cow to have her first calf is _____.
 - a. 1 year
 - b. 2 years
 - c. 3 years
 - d. 4 years

- The most common off-flavor in milk is _____ flavor.
 - a. Oxidized
 - b. High acid
 - c. Feed
 - d. Rancid

- In base-excess milk pricing _____.
 - a. Consumers must buy the excess milk
 - b. Consumers must buy the base milk
 - c. Consumers are not directly involved
 - d. Consumers establish the rules

- To gain bargaining power, milk producers have:
 - a. Eliminated the middle man
 - b. Sold directly to consumers
 - c. Formed cooperatives
 - d. Demanded cost of production prices

- The quantity of milk used to produce 1 pound of butter depends chiefly upon the _____ of the milk.
 - a. Protein content
 - b. Solids-not-fat content
 - c. Bacteriological quality
 - d. Milk fat content

- When a CMT is done on a cow's milk, what are you testing for?
 - a. Ketosis
 - b. Subclinical mastitis
 - c. Pregnancy
 - d. Butterfat

- The _____ test may be of value in detecting gross carelessness in the production and handling of milk on the farm.
 - a. Phosphatase
 - b. Sediment
 - c. Freezing Point
 - d. Acidity

- About _____% of the calcium available in the food supply is provided by milk and milk products.
 - a. 66%
 - b. 76%
 - c. 86%
 - d. 96%

- Powdered cream requires _____ pounds of whole milk.
 - a. 7.25 lbs
 - b. 7.4 lbs
 - c. 13.5 lbs
 - d. 14.25 lbs

- Specific gravity of milk at 60°F is _____.
 - a. 1.022
 - b. 1.032
 - c. 1.033
 - d. 1.042

- The U.S. Dairy Export Council (USDEC) was created by _____.
 - a. USDA
 - b. Babcock Institute
 - c. USDA-FAS
 - d. Dairy Management, Inc.

- Milk in plastic jugs from grocery stores can have oxidized flavors. What causes this off flavor?
 - a. human handling
 - b. sunlight and fluorescent light
 - c. water contact during pasteurization
 - d. Dutch belted cows

- Ten flies per cow can cause a 10 percent loss in feed efficiency. The house fly and the stable fly are two of the most common fly pests in dairy barns. What is the main difference of the two?
 - a. The house fly stays indoors.
 - b. The stable fly bites.
 - c. The house fly has veined wings.
 - d. The stable fly only affects calves.

- An animal's flight zone is:
 - a. a certain area of a facility in which an animal is easily frightened.
 - b. "personal space" surrounding an animal's body
 - c. an area in the pasture designated for aircraft landing.
 - d. an area on the facilities where an animal retreats when in danger

- The aspect of milk quality that is completely controlled on the farm is _____.
 - a. milk components
 - b. drug residue
 - c. milk flavor
 - d. bacteria counts

- The two methods most commonly used to shorten udder hair are:
 - a. clipping and paste remover
 - b. clipping and freezing
 - c. clipping and singeing
 - d. clipping and pulling

- For winter use, barn curtains should:
 - a. be cleaned to allow light penetration
 - b. not be cleaned so dirt and dust can act as insulation
 - c. remain down to allow proper ventilation
 - d. be sprayed with a protective black coating

- Which of the following diseases can be transferred from cow to human?
 - a. Blackleg
 - b. Johne's Disease
 - c. Salmonellosis
 - d. Mastitis

- When deciding if a cow is ready to make the move from the fresh cow pen to the rest of the milking herd, which of the following is NOT important to monitor?
 - a. feed intake
 - b. milk production
 - c. uterine health
 - d. body temperature

- Most twinning in cattle occurs from:
 - a. double ovulation
 - b. natural cloning in the uterus
 - c. embryo splitting
 - d. super ovulation

- If your milk protein test drops faster than milk fat test, what is NOT happening in your herd?
 - a. experiencing lower dry matter intake
 - b. lack of amino acids for protein synthesis
 - c. reduced microbial protein synthesis
 - d. rumen fermentation has been reduced

- Cows develop antibodies to BVD only after what occurs?
 - a. vaccination for BVD
 - b. exposure to BVD
 - c. a and b
 - d. none of the above

- _____ are a group of ingredients that can cause a desired response such as shift rumen acidity, enhance growth, or modify metabolism. Most are not nutrients, although some also contain nutrients such as the sodium in sodium bicarb.
 - a. total mixed rations (TMs)
 - b. forages
 - c. additives
 - d. rumen microorganisms

- Which of the following countries has the most cows?
 - a. Brazil
 - b. India
 - c. United States
 - d. Portugal

- Which of the following is the best strategy in managing teat conditions in winter?
 - a. Apply liberal amounts of udder salve, cream, or ointment after milking
 - b. Use a post milking teat dip and hold cows inside until it dries
 - c. Spray the udder with water and immediately turn outside
 - d. No treatment after milking is best in cold conditions

- 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

- A cryoscope is an important tool that tests for _____ in milk.

 - a. butterfat
 - b. antibiotics
 - c. pesticides
 - d. added water

- Milk is the only source of _____ in nature.

 - a. calcium
 - b. phosphorus
 - c. lactose
 - d. fatty acids

- Adulterants of milk that are important to man's health are _____.

 - a. radio nuclides
 - b. pesticides
 - c. antibiotics
 - d. A, B, and C

- _____ cause(s) flavor(s) in milk such as acid, high acid, or sour milk.

 - a. Chemical adulterants
 - b. Microorganisms
 - c. Sediment
 - d. Weeds

- About _____ of the calcium available in the food supply is provided by milk.

 - a. 65%
 - b. 50%
 - c. 75%
 - d. 95%

- To make one pound of butter, you need approximately _____ pounds of whole milk.

 - a. 21.2
 - b. 2.2
 - c. 10.6
 - d. 10

- In Federal order markets, milk sold for consumption on fluid forms is in:

 - a. Class IV
 - b. Class III
 - c. Class II
 - d. Class I

- By definition, a product labeled milk must contain not less than _____ percent milk fat.
 - a. 0.5
 - b. 2
 - c. 3.5
 - d. none of the above

- The persons regulated by a Federal milk marketing order are _____.
 - a. milk producers
 - b. milk handlers
 - c. milk marketing cooperatives
 - d. none of the above

- The micro biological standard for Grade A raw milk is _____ bacteria or less per milliliter of milk.
 - a. 50,000
 - b. 75,000
 - c. 100,000
 - d. 150,000

- A milk order, including pricing and other provisions, become effective only after approval by _____.
 - a. consumers
 - b. dairy farmers
 - c. milk processors
 - d. Secretary of Agriculture

- Flavors of milk may be caused in general by _____.
 - a. Chemical changes
 - b. Health of the cows
 - c. Feeds consumed by the cow
 - d. All of the above

- Chemical sanitizes bearing _____ are most widely used for sanitizing milking equipment.
 - a. chlorine
 - b. iodine
 - c. Quaternary ammonium compounds
 - d. Bromine

- Mastitis in milk _____.
 - a. Has a direct effect on cheese yield
 - b. May cause increased rancidity
 - c. Decreases calcium content
 - d. All of the above

- 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

- Lactose is the principal _____ in milk.
 - a. Fat
 - b. Protein
 - c. Carbohydrate
 - d. Mineral

- 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 between cows
 - c. Wear rubber or plastic gloves during milking and disinfect the gloves between cows
 - d. Use a bacteria for disinfecting the tests after milking

- Most farm bulk tanks are designed for every other day pickup and must cool 25 percent of the volume of the tank to _____ degrees F within two hours after milking.
 - a. 25
 - b. 40
 - c. 60
 - d. 70

- The components of milk responsible for richness and sweetness, in this order are:
 - a. Minerals and lactose
 - b. Milk and milk sugar
 - c. Casein and lactalbumin
 - d. Nonfat solids and lactic acid

- 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)

- A system of fairly distributing payment among producers in a federal milk market is called:
 - a. Pooling
 - b. Take- off, pay back
 - c. Base excess pricing
 - d. Seasonal incentive

- _____ 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

- Each Federal Milk Marketing order is administered by a representative of the:
 - a. Secretary of Agriculture of the US
 - b. Secretary of Commerce of the US
 - c. Secretary of Treasury of the US
 - d. Secretary of the US Food and Drug Administration

- Grade A milk priced under Federal Orders is classified according to:
 - a. how consumers use it
 - b. the products made from it by milk processors
 - c. the type of container used to package it
 - d. how much water is added in processing

- In a milk market with four classes of milk, Class 3 milk is commonly used for:
 - a. milk, non fat milk and skim milk
 - b. cottage cheese and cream products
 - c. butter and dry milk products
 - d. to assure and adequate supply of milk

- For the maximum intake of calcium, one should consume _____.
 - a. Whole milk
 - b. 2% milk
 - c. 1% milk
 - d. Skim milk

- Mandatory animal drug residue testing program was established in _____.
 - a. 1993
 - b. 1983
 - c. 1968
 - d. 1937

- One hundred years ago, milk production per cow was estimated at 1,700 quarts annually; today the average has leaped to more than _____ quarts per cow.
 - a. 6,450
 - b. 7,450
 - c. 8,450
 - d. 9,450

- The plastic milk container was introduced commercially in _____.
 - a. 1964
 - b. 1974
 - c. 1955
 - d. 1981

- High bacteria counts in raw milk can be caused by:
 - a. Cows with mastitis
 - b. Poor cooling systems
 - c. Unclean equipment
 - d. All of the above

- Off-flavors in milk may be caused by:
 - a. Unhealthy cows and feeds consumed by cows
 - b. Bacteriological action or chemical action
 - c. Absorption after the milk is drawn
 - d. All of the above

- Feed flavors can be minimized in milk by:
 - a. Feeding offending feeds only during milking
 - b. Feeding offending feeds only 1-2 hours before milking
 - c. Taking cows off offending feeds at least 4 hours before milking
 - d. Mixing grain with offending feeds in order to neutralize the flavor

- The milk from cows being treated with antibiotics should be withheld from the supply because:
 - a. Antibiotics will curdle the milk
 - b. Some people are sensitive to antibiotics
 - c. Antibiotics create high bacteria counts
 - d. Antibiotics prevent proper cooling

- In order to stimulate milk letdown:
 - a. The cow's tail should be constrained
 - b. The teats should be coated with glycerine
 - c. The udder and teats should be washed with warm water containing sanitizer
 - d. None of these

- In order to produce milk of low bacteria count a producer should:
 - a. Use clean milking equipment and procedures
 - b. Cool milk quickly
 - c. Store milk in a covered container
 - d. All of the above

- The Federal marketing order requires that when a handler operating under the order purchases milk from a dairy farmer that:
 - a. He pay at least minimum uniform pool price
 - b. He pay more than minimum uniform pool price
 - c. He make accurate weights and tests of milk purchased
 - d. A and C above

- The detection of added water in milk is easily determined by conducting the _____ test.
 - a. Acidity
 - b. Phosphate
 - c. Freezing point
 - d. Stimulation

- Off-flavors in milk may be caused by:
 - a. Unhealthy cows and feeds consumed by cows
 - b. Bacteriological action or chemical action
 - c. Absorption after the milk is drawn
 - d. All of the above

- A bitter taste in fresh milk may be caused by:
 - a. Use of rusty equipment
 - b. Placing milk in sunlight
 - c. Strong feeds or weeds eaten by the cow
 - d. Heating

- While some extra-label drugs can be used by food-producing animals, others cannot. Which of the drugs is/are an illegal drug(s)?
 - a. Clenbuterol
 - b. Penicillin
 - c. Tetracycline
 - d. All of the above

- Double-8, parallel, herringbone, and flat are all examples of _____.
 - a. Dairy barns
 - b. Milking parlors
 - c. Bulk milk tankers
 - d. TMR mixers

- The process of concentrating milk currently being used on the farm is _____.
 - a. Condensing
 - b. Ultrafiltration
 - c. Reconstitution
 - d. Pasteurization

- In a University of Florida study, the pulsation ration was widened to 70:30 from 60:40, which boosted performance by 4%, while raising vacuum levels to 15-1/4 inches of mercury from 14 inches boosted performance 6%. What process are we boosting?
 - a. Cooling
 - b. Transporting
 - c. Pasteurizing
 - d. Milking

- The name(s) of drug residue screening test(s) that can be used on the farm:
 - a. SNAP
 - b. Charm Cowside
 - c. Lactek
 - d. All of the above

- The quantity of milk used to produce 1 pound of butter depends chiefly upon the _____ of the milk.
 - a. Protein content
 - b. Solids-not-fat content
 - c. Bacteriological quality
 - d. Milk fat content

- Net profit after taxes divided by annual net sales is called:
 - a. Profit margin
 - b. Return on equity
 - c. Return on assets
 - d. Carry over profits

- Most bulk tanks on modern dairy farms are designed for EOD pick-up and must cool 25% of the volume of the tank to _____ degrees F within two hours after milking.
 - a. 55
 - b. 50
 - c. 45
 - d. 40

- The microbiological standard for Grade A raw milk from a single producer is _____ bacteria per milliliter of milk prior to commingling with milk from other producers.
 - a. 200,000
 - b. 150,000
 - c. 100,000
 - d. 50,000

- Recommended speed of pulsation ranges from _____ pulsations per minute.
 - a. 68 – 80
 - b. 58 – 70
 - c. 48 – 60
 - d. 38 – 50

- According to a study done by Kansas State University, cows that are prepped for _____ seconds, and have the milker placed on within _____ minute(s) after prepping begins, will produce an average of 3 pounds more per milking than those cows whose milking is delayed by 5 minutes.
 - a. 10:2
 - b. 30:1
 - c. 60:3
 - d. 90:4

- The application of heat to milk for the purpose of preservation, with the extra benefit of the protection of public health, continues to develop. Innovative methods are now available for processing milk at _____ with only fractions of a second holding times.
 - a. Aseptic processing
 - b. Ultra high temperatures
 - c. Sterilization
 - d. High temperature short time

- One of the major developments of the 1970s has been the _____ processing and packaging, which can effectively provide six to nine months shelf life under non-refrigerated conditions.
 - a. Irradiation
 - b. Aseptic
 - c. UHT (Ultra High Temperature)
 - d. Chemical addition

- 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

- In 1985, a major Salmonellosis outbreak in Chicago spawned increased emphasis on milk processing sanitation, FDA inspections and down-time equipment inspections to evaluate and eliminate possible _____ cross connections.
 - a. Raw to homogenized
 - b. Raw to sanitized
 - c. Sanitized to homogenized
 - d. Raw to pasteurized

- In January 1998 at a meeting of the National Mastitis Council, a debate raged over lowering the acceptable SCC (somatic cell count). The acceptable standard being considered is:
 - a. 600,000
 - b. 500,000
 - c. 400,000
 - d. 300,000

- What is the single most effective practice to reduce new contagious infections of mastitis?
 - a. Disinfecting teats prior to milking
 - b. Predipping teats
 - c. Dry-cow treatments
 - d. Increasing vacuums

- Bulk milk cooling and storage and the increased use of milking systems on farms has resulted in _____ bacteria being the primary organisms in raw milk.
 - a. Thermophilic
 - b. Mesophilic
 - c. Coliform
 - d. Psychotrophic

- The two most important disease of cattle transmissible to man through milk are:
 - a. Tuberculosis and Brucellosis
 - b. Brucellosis and Scarlet Fever
 - c. Scarlet Fever and Q Fever
 - d. Tuberculosis and Anthrax

- The microorganism which causes Q Fever is:
 - a. Coxiella Burnetti
 - b. Vibria Comma
 - c. Listeria Monocytogenes
 - d. Bacillus Anthraces

- To gain bargaining power, milk producers have:
 - a. Eliminated the middle man
 - b. Sold directly to consumers
 - c. Formed cooperatives
 - d. Demanded cost of production prices

- Consumer demand for milk and dairy products depends largely on:
 - a. Retail prices of fluid milk and dairy products
 - b. Prices of substitute products
 - c. Consumer incomes
 - d. All of the above

- Ownership of bulk raw milk from the farm changes:
 - a. At the farm when the milk becomes commingled with other milk in the milk hauler's truck tank
 - b. When the milk arrives at the dairy plant
 - c. When the producer receives payment for the milk
 - d. When the milk is sold as a dairy product in a retail store

- What is the temperature range psychotropic bacteria thrive?
 - a. 20 – 30 degrees Fahrenheit
 - b. 35 – 50 degrees Fahrenheit
 - c. 70 – 100 degrees Fahrenheit
 - d. 110 – 145 degrees Fahrenheit

- Dairy herds with high somatic cell counts (SCC) are more likely to produce a _____ flavored milk.
 - a. Rancid
 - b. Malty
 - c. Feed
 - d. Garlic / onion

- Bulk tanks of over 1,000 gallons require at least _____ minutes of agitation to receive a representative sample for an accurate milk fat test.
 - a. 5
 - b. 10
 - c. 20
 - d. 30

- The most common cause of oxidized raw milk on the farm is the _____.
 - a. Milk house lights
 - b. Over feeding of vitamin E
 - c. Poor cooling of milk
 - d. Water Supply

- Which of the following will best control contagious mastitis?
 - a. Germicidal teat dip
 - b. "Cosmetic" teat dip
 - c. Pre-milking teat dip
 - d. Barrier-type teat dip

- The average cow reaches the peak of her milk production during the _____ month of her lactation.
 - a. First
 - b. Second
 - c. Sixth
 - d. Seventh

- If the dairyman observes a cow in "standing heat" in the early morning, he should breed the cow by artificial insemination _____.
 - a. That same afternoon
 - b. Immediately
 - c. The next morning
 - d. 48 hours later

- Milk machine inflations and other rubber parts must be cleaned adequately with alkaline detergent as they readily absorb _____, resulting in the loss of physical qualities essential for good milking and better health.
 - a. Moisture
 - b. Fat
 - c. Protein
 - d. Minerals

- The _____ test is used to detect if milk has been pasteurized properly.
 - a. Shelf life
 - b. Coliform
 - c. Standard Plate Count
 - d. Phosphatase

- They base the test for antibiotics, a common adulterant of milk upon the principle that the growth of bacteria is _____.
 - a. Stimulated
 - b. Enhanced
 - c. Magnified
 - d. Inhibited

- Starting December 2003, the California Milk Advisory Board (CMAB) began airing its “Happy Cows” television ad campaign nationwide in an effort to build recognition for
 - a. their new governor’s dairy farm
 - b. America’s dairy farms
 - c. Real California Cheese
 - d. the state of California

- According to the USDA’s annual report to Congress on the dairy promotion programs,
 - a. generic advertising’s impacts are negative and insignificant
 - b. generic advertising’s impacts are positive and significant
 - c. brand advertisings impacts are positive and significant
 - d. brand and generic advertising’s impacts are virtually the same.

- University of Wisconsin – Madison dairy foods researchers estimate that the cheese industry loses _____ annually on defects in cheddar, other American – type and Swiss cheeses
 - a. \$1,000,000
 - b. Over \$63,000,000
 - c. \$5,000,000
 - d. \$100,000 - \$250,000

- In its 2004 U.S. Agriculture briefing book, the Food and Agricultural Policy Research Institute (FAPRI) projected the per capita cheese consumption its expected to
 - a. grow by 50 pounds between 2004 and 2013
 - b. remain the same between 2004 and 2013
 - c. decline by two pounds between 2004 and 2013
 - d. Grow by two pounds between 2004 and 2013

- _____ milk is made by removing about 60% of milk’s water. It contains not less than 6.5% milk fat and not less than %23 by weight of total milk solids.
 - a. Cultured
 - b. Nonfat dry
 - c. Evaporated
 - d. Sweetened condensed

- The dairy product that had the highest percent change in per capita sales with an increase of 13.8% in 2002 was
 - a. yogurt
 - b. flavored milk
 - c. sour cream
 - d. eggnog

- According to data from the 2003 edition of Dairy Facts, about _____ percent of the total U.S. milk volume is regulated thorough the Federal Orders.
 - a. 10
 - b. 27
 - c. 55
 - d. 74

- A cheese maker from the Netherlands was named World Champion Cheese Maker for his _____ entry which scored 98.48 in the championship judging rounds.
 - a. Provolone
 - b. Aged Gouda
 - c. Muenster
 - d. Swiss

- The International Dairy Foods Association (IDFA) “strongly supports” the Food and Drug Administration’s (FDA) actions to update the existing federal standards of identity for _____, but National Milk Producers Federation (NMPE) has “many concerns” about proposed standard changes.
 - a. Ice milk
 - b. Sorbet
 - c. Ice cream
 - d. Yogurt

- The market prices used in the Federal Milk Market Order program to establish class prices of milk are those of
 - a. Butter, nonfat dry milk, and cheddar cheese
 - b. Cottage cheese and ice cream
 - c. Fresh milk and cream
 - d. All varieties of cheese

- A system of fairly distributing payment among producers in a Federal Milk Market is called
 - a. Seasonal incentive
 - b. Take-off, pay-back
 - c. Pooling
 - d. Base-excess pricing

- In Federal order markets, milk sold for consumption in liquid form in a class
 - a. I
 - b. II
 - c. III
 - d. IV

- _____ are regulated by a Federal Milk Marketing Order.
 - a. Dairy farmers
 - b. Milk handlers
 - c. Milk haulers
 - d. None of the above

- Milk orders, including the pricing and other provisions, become effective only after approval by
 - a. Consumer groups
 - b. Milk processors
 - c. Local county agents
 - d. Dairy farmers

- The Federal orders of today are based on the Agricultural Agreement Act of
 - a. 1927
 - b. 1937
 - c. 1956
 - d. 1966

- In January 2004, the US Patent and Trademark Office (USPTO) granted a patent to Kraft Food Holdings, Inc., for a method for preparing cheese containing
 - a. Increased levels of nonfat dry milk
 - b. Decreased levels of nonfat dry milk
 - c. Increased levels of whey protein
 - d. Decreased levels of whey protein

- The Food and Agricultural Policy Research Institute's report of 2003 puts per capita cheese consumption at _____ pounds.
 - a. 50
 - b. 5
 - c. 98.7
 - d. 30.8

- Cottage cheese is breaking a long cycle of flat sales and enjoying a revived popularity not seen since the 1970's because of it's versatility and the popularity of
 - a. Slim Fast
 - b. Jenny Craig
 - c. Low-carbohydrate diets
 - d. Slim Spa

- According to the American Journal of Hypertension, if every American ate the recommended three to four servings of dairy each day, more than \$200,000,000 could be saved in health care costs over the next _____ years.
 - a. Five
 - b. Ten
 - c. 15
 - d. 20

- In _____ Federal Milk Marketing Orders were reformed, and component pricing was introduced
 - a. 2000
 - b. 1995
 - c. 1990
 - d. 1985

- Today, the most popular size of container for fluid milk sold in stores is
 - a. Pint
 - b. Quart
 - c. Half Gallon
 - d. Gallon

- The percentage of Grade A milk shipped to plants regulated under Federal Orders in three-fourths of the states in
 - a. 90
 - b. 85
 - c. 80
 - d. 75

- “Forward Contracts” are agreements to
 - a. produce a predetermined amount of milk
 - b. ship to a predetermined location the dairy food ordered within a guaranteed time frame.
 - c. Sell at a price an amount of milk at a time in the future.
 - d. Purchase a set amount of manufactured dairy product at the time of delivery.

- In order for USDA to provide a support price of \$9.90 per hundred pounds of producer milk, prices are established for butter and nonfat dry milk. The relationship between these two prices is called the
 - a. Powder-butter formula
 - b. Fat and nonfat tilt
 - c. Butter-powder tilt
 - d. Fat and nonfat formula

- Class III milk is commonly used for
 - a. Assuring a adequate supply of milk
 - b. Butter and dry milk products
 - c. Milk, nonfat milk, and skim milk
 - d. Cottage cheese and cream products